The grand potential of the order 6

$$\Omega_6 =$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|7,10\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_5^- f_7^- f_9^- f_{11}^- \begin{pmatrix} \frac{+f_1^- f_2^- f_3^- +f_1^- f_2^- f_4^+ -f_2^- f_3^- f_4^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_1^- f_3^- f_6^- -f_3^- f_4^- f_6^- +f_1^- f_6^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_6+E_{10})(-E_6+E_{12})} \\ \frac{+f_3^- f_4^- f_8^- -f_1^- f_8^- f_4^+ -f_1^- f_3^- f_8^-}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_8+E_{10})(-E_8+E_{12})} \\ \frac{+f_3^- f_4^- f_{10}^- -f_1^- f_{10}^- f_4^+ -f_1^- f_3^- f_{10}^-}{(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_{10}+E_6)(-E_{10}+E_8)(-E_{10}+E_{12})} \\ \frac{+f_3^- f_4^- f_{12}^- -f_1^- f_3^- f_{12}^- -f_1^- f_{12}^- f_4^+}{(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_{12}+E_6)(-E_{12}+E_8)(-E_{12}+E_{10})} \end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|5,8\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_8^- f_9^- f_{11}^- \begin{pmatrix} \frac{+f_1^- f_2^- f_3^- f_7^- +f_1^- f_2^- f_7^- f_4^+ +f_2^- f_3^- f_4^- f_5^- -f_1^- f_2^- f_3^- f_5^- -f_2^- f_3^- f_4^- f_7^- -f_1^- f_2^- f_5^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7+E_5)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_5^- f_1^+ -f_3^- f_4^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_7^- +f_1^- f_5^- f_6^- f_4^+ -f_3^- f_4^- f_5^- f_6^- -f_1^- f_3^- f_6^- f_7^- +f_1^- f_3^- f_5^- f_6^- -f_1^- f_6^- f_7^- f_4^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_6+E_{10})(-E_6+E_{12})} \\ \frac{+f_1^- f_3^- f_7^- f_{10}^- -f_1^- f_3^- f_5^- f_{10}^- -f_1^- f_5^- f_{10}^- f_4^+ -f_3^- f_4^- f_7^- f_{10}^- +f_3^- f_4^- f_5^- f_{10}^- +f_1^- f_7^- f_{10}^- f_4^+}{(-E_7+E_5)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_{10}+E_{12})} \\ \frac{+f_1^- f_5^- f_{12}^- f_4^+ -f_3^- f_4^- f_5^- f_{12}^- +f_3^- f_4^- f_7^- f_{12}^- -f_1^- f_3^- f_7^- f_{12}^- +f_1^- f_3^- f_5^- f_{12}^- -f_1^- f_7^- f_{12}^- f_4^+}{(-E_5+E_7)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_{12}+E_{10})} \end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|9,12\}\{9,10|V|7,10\}\{11,12|V|11,2\}f_5^- f_{10}^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_4^- f_9^- -f_1^- f_2^- f_9^- f_4^+ -f_2^- f_3^- f_4^- f_7^- +f_1^- f_2^- f_3^- f_7^- +f_1^- f_2^- f_7^- f_4^+ -f_1^- f_2^- f_3^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2+E_8)(-E_9+E_7)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_9^- f_1^+ -f_3^- f_4^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_9+E_7)(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_7^- +f_1^- f_3^- f_6^- f_9^- +f_1^- f_6^- f_9^- f_4^+ -f_3^- f_4^- f_6^- f_9^- -f_1^- f_6^- f_7^- f_4^+ -f_1^- f_3^- f_6^- f_7^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_7+E_9)(-E_6+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_8^- +f_1^- f_3^- f_8^- f_9^- -f_1^- f_7^- f_8^- f_4^+ +f_1^- f_8^- f_9^- f_4^+ -f_1^- f_3^- f_7^- f_8^- -f_3^- f_4^- f_8^- f_9^-}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_7+E_9)(-E_8+E_{12})} \\ \frac{+f_1^- f_3^- f_7^- f_{12}^- -f_1^- f_9^- f_{12}^- f_4^+ +f_1^- f_7^- f_{12}^- f_4^+ +f_3^- f_4^- f_9^- f_{12}^- -f_3^- f_4^- f_7^- f_{12}^- -f_1^- f_3^- f_9^- f_{12}^-}{(-E_7+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_{12}+E_8)} \end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|9,8\}\{9,10|V|5,10\}\{11,12|V|11,2\}f_8^- f_{10}^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_4^- f_5^- -f_1^- f_2^- f_5^- f_4^+ -f_1^- f_2^- f_3^- f_5^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_5+E_7)(-E_5+E_9)(-E_2+E_{12})} \\ \frac{+f_2^- f_3^- f_4^- f_7^- -f_1^- f_2^- f_7^- f_4^+ -f_1^- f_2^- f_3^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7+E_5)(-E_7+E_9)(-E_2+E_{12})} \\ \frac{+f_1^- f_2^- f_3^- f_9^- +f_1^- f_2^- f_9^- f_4^+ -f_2^- f_3^- f_4^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9+E_5)(-E_9+E_7)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_5^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_5+E_9)(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_7+E_9)(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_3^- f_4^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_9+E_7)(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_1^- f_3^- f_5^- f_6^- +f_1^- f_5^- f_6^- f_4^+ -f_3^- f_4^- f_5^- f_6^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5+E_7)(-E_5+E_9)(-E_6+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_7^- -f_1^- f_3^- f_6^- f_7^- -f_1^- f_6^- f_7^- f_4^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_7+E_9)(-E_6+E_{12})} \\ \frac{+f_1^- f_3^- f_6^- f_9^- +f_1^- f_6^- f_9^- f_4^+ -f_3^- f_4^- f_6^- f_9^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9+E_5)(-E_9+E_7)(-E_6+E_{12})} \\ \frac{+f_1^- f_5^- f_{12}^- f_4^+ +f_1^- f_3^- f_5^- f_{12}^- -f_3^- f_4^- f_5^- f_{12}^-}{(-E_5+E_7)(-E_5+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_{12}+E_6)} \\ \frac{+f_3^- f_4^- f_7^- f_{12}^- -f_1^- f_7^- f_{12}^- f_4^+ -f_1^- f_3^- f_7^- f_{12}^-}{(-E_7+E_5)(-E_7+E_9)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_{12}+E_6)} \\ \frac{+f_1^- f_3^- f_9^- f_{12}^- +f_1^- f_9^- f_{12}^- f_4^+ -f_3^- f_4^- f_9^- f_{12}^-}{(-E_9+E_5)(-E_9+E_7)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_{12}+E_6)} \end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|5,10\}\{9,10|V|9,8\}\{11,12|V|11,2\}f_9^- f_{11}^- \begin{pmatrix} \frac{+f_1^- f_2^- f_5^- f_8^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_{10}^- +f_1^- f_2^- f_3^- f_7^- f_{10}^- +f_1^- f_2^- f_7^- f_{10}^- f_4^+ +f_2^- f_3^- f_4^- f_5^- f_{10}^- -f_1^- f_2^- f_7^- f_8^- f_4^+ +f_2^- f_3^- f_4^- f_7^- f_8^- -f_2^- f_3^- f_4^- f_5^- f_8^- -f_2^- f_3^- f_4^- f_7^- f_{10}^- -f_1^- f_2^- f_3^- f_7^- f_8^- +f_1^- f_2^- f_3^- f_5^- f_8^- -f_1^- f_2^- f_5^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_5+E_7)(-E_8+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_{10}^- f_1^+ -f_3^- f_4^- f_7^- f_8^- f_1^+ -f_3^- f_4^- f_5^- f_{10}^- f_1^+ +f_3^- f_4^- f_5^- f_8^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_{10}+E_8)(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^- -f_3^- f_4^- f_5^- f_6^- f_{10}^- -f_1^- f_3^- f_6^- f_7^- f_{10}^- -f_1^- f_6^- f_7^- f_{10}^- f_4^+ +f_1^- f_3^- f_6^- f_7^- f_8^- -f_3^- f_4^- f_6^- f_7^- f_8^- +f_1^- f_6^- f_7^- f_8^- f_4^+ +f_1^- f_5^- f_6^- f_{10}^- f_4^+ +f_1^- f_3^- f_5^- f_6^- f_{10}^- -f_1^- f_3^- f_5^- f_6^- f_8^- +f_3^- f_4^- f_5^- f_6^- f_8^- -f_1^- f_5^- f_6^- f_8^- f_4^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_{10}+E_8)(-E_6+E_{12})} \\ \frac{+f_3^- f_4^- f_5^- f_{10}^- f_{12}^- +f_1^- f_5^- f_8^- f_{12}^- f_4^+ +f_1^- f_7^- f_{10}^- f_{12}^- f_4^+ -f_1^- f_3^- f_7^- f_8^- f_{12}^- +f_1^- f_3^- f_7^- f_{10}^- f_{12}^- +f_1^- f_3^- f_5^- f_8^- f_{12}^- -f_1^- f_5^- f_{10}^- f_{12}^- f_4^+ +f_3^- f_4^- f_7^- f_8^- f_{12}^- -f_3^- f_4^- f_7^- f_{10}^- f_{12}^- -f_3^- f_4^- f_5^- f_8^- f_{12}^- -f_1^- f_3^- f_5^- f_{10}^- f_{12}^- -f_1^- f_7^- f_8^- f_{12}^- f_4^+}{(-E_5+E_7)(-E_{10}+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_{12}+E_6)} \end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|9,12\}\{9,10|V|5,8\}\{11,12|V|11,2\}f_{11}^{-}\begin{pmatrix}\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_2^+ +f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- +f_3^- f_4^- f_5^- f_9^- f_2^+ f_7^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_7^+ -f_1^- f_2^- f_5^- f_9^- f_4^+ f_7^+ +f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- -f_3^- f_4^- f_5^- f_7^- f_8^- f_2^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- -f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_2+E_5)(-E_2+E_{12})}\\ \frac{+f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_8^+ -f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+ -f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_8^+ -f_1^- f_2^- f_3^- f_9^- f_{10}^- f_8^+ +f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_5+E_8)(-E_2+E_{12})}\\ \frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- -f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_{10}^+ -f_3^- f_4^- f_5^- f_8^- f_2^+ f_{10}^+ +f_1^- f_2^- f_5^- f_8^- f_4^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_9-E_{10}+E_5+E_8)(-E_2+E_{12})}\\ \frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_7^+ -f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- +f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- -f_1^- f_3^- f_4^- f_5^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_4+E_1+E_{12})}\\ \frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_8^+ -f_1^- f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9-E_{10}+E_5+E_8)(-E_3-E_4+E_1+E_{12})}\\ \frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- -f_1^- f_3^- f_4^- f_5^- f_8^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_9-E_{10}+E_5+E_8)(-E_3-E_4+E_1+E_{12})}\\ \frac{+f_1^- f_5^- f_6^- f_9^- f_4^+ f_7^+ -f_3^- f_4^- f_5^- f_9^- f_6^+ f_7^+ -f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ +f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_7^+ +f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- -f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- +f_1^- f_6^- f_7^- f_8^- f_{10}^- f_4^+ -f_1^- f_5^- f_6^- f_7^- f_8^- f_4^+ +f_3^- f_4^- f_5^- f_7^- f_8^- f_6^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_8^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_6+E_{12})}\\ \frac{+f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ -f_1^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ +f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+ +f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- -f_1^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ -f_3^- f_4^- f_5^- f_8^- f_9^- f_6^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_5-E_8+E_9+E_{10})(-E_6+E_{12})}\\ \frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_6^+ +f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ +f_3^- f_4^- f_5^- f_8^- f_6^+ f_{10}^+ -f_1^- f_5^- f_6^- f_8^- f_4^+ f_{10}^+ -f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_5+E_8)(-E_6+E_{12})}\\ \frac{+f_3^- f_4^- f_9^- f_{10}^- f_7^+ f_8^+ -f_3^- f_4^- f_5^- f_9^- f_7^+ f_8^+ -f_1^- f_3^- f_7^- f_8^- f_{10}^- f_9^+ -f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_9^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_9^+ +f_1^- f_5^- f_7^- f_8^- f_4^+ f_9^+}{(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_5+E_8)(-E_7-E_8+E_9+E_{12})}\\ \frac{+f_3^- f_4^- f_5^- f_9^- f_7^+ f_{10}^+ -f_1^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ +f_1^- f_3^- f_7^- f_8^- f_{10}^- f_5^+ -f_3^- f_4^- f_5^- f_8^- f_7^+ f_{10}^+ -f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_5^+ +f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_5^+}{(-E_7-E_{10}+E_2+E_5)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_5+E_8)(-E_7-E_{10}+E_5+E_{12})}\\ \frac{+f_1^- f_3^- f_5^- f_8^- f_9^- f_{12}^- +f_3^- f_4^- f_9^- f_{10}^- f_8^+ f_{12}^+ -f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^+ -f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_8^+ -f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ +f_1^- f_5^- f_8^- f_9^- f_{12}^- f_4^+}{(-E_5-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_9-E_{12}+E_7+E_8)}\\ \frac{+f_1^- f_3^- f_5^- f_8^- f_{12}^- f_{10}^+ +f_1^- f_5^- f_8^- f_{12}^- f_4^+ f_{10}^+ -f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- +f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^+ -f_1^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_3^- f_4^- f_5^- f_8^- f_{10}^+ f_{12}^+}{(-E_5-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_5-E_{12}+E_7+E_{10})}\\ \frac{+f_3^- f_4^- f_5^- f_9^- f_7^+ f_{12}^+ -f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^- +f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ -f_1^- f_3^- f_5^- f_9^- f_{12}^- f_7^+ -f_1^- f_7^- f_8^- f_{10}^- f_{12}^- f_4^+ -f_1^- f_5^- f_9^- f_{12}^- f_4^+ f_7^+ +f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+ +f_1^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_{12}^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_{12}^- +f_1^- f_5^- f_7^- f_8^- f_{12}^- f_4^+}{(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_{12}+E_6)(-E_9-E_{12}+E_7+E_8)(-E_5-E_{12}+E_7+E_{10})}\end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|7,10\}\{9,10|V|11,2\}\{11,12|V|9,12\}f_5^- f_7^- f_{12}^-\begin{pmatrix}\frac{+f_1^- f_2^- f_9^- f_4^+ -f_2^- f_3^- f_4^- f_9^- +f_1^- f_2^- f_3^- f_9^- -f_1^- f_2^- f_3^- f_{11}^- -f_1^- f_2^- f_{11}^- f_4^+ +f_2^- f_3^- f_4^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_2+E_{10})(-E_9+E_{11})}\\ \frac{+f_3^- f_4^- f_9^- f_1^+ -f_3^- f_4^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_1+E_{10})(-E_9+E_{11})}\\ \frac{+f_1^- f_6^- f_{11}^- f_4^+ -f_3^- f_4^- f_6^- f_{11}^- +f_3^- f_4^- f_6^- f_9^- +f_1^- f_3^- f_6^- f_{11}^- -f_1^- f_3^- f_6^- f_9^- -f_1^- f_6^- f_9^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_6+E_{10})(-E_{11}+E_9)}\\ \frac{+f_1^- f_3^- f_8^- f_9^- +f_1^- f_8^- f_9^- f_4^+ -f_3^- f_4^- f_8^- f_9^- +f_3^- f_4^- f_8^- f_{11}^- -f_1^- f_8^- f_{11}^- f_4^+ -f_1^- f_3^- f_8^- f_{11}^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_8+E_{10})(-E_9+E_{11})}\\ \frac{+f_1^- f_{10}^- f_{11}^- f_4^+ -f_3^- f_4^- f_{10}^- f_{11}^- -f_1^- f_9^- f_{10}^- f_4^+ -f_1^- f_3^- f_9^- f_{10}^- +f_3^- f_4^- f_9^- f_{10}^- +f_1^- f_3^- f_{10}^- f_{11}^-}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_{10}+E_8)(-E_{11}+E_9)}\end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|5,8\}\{9,10|V|11,2\}\{11,12|V|9,12\}f_8^- f_{12}^-\begin{pmatrix}\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- -f_1^- f_2^- f_3^- f_5^- f_{11}^- -f_1^- f_2^- f_7^- f_9^- f_4^+ -f_1^- f_2^- f_5^- f_{11}^- f_4^+ +f_1^- f_2^- f_7^- f_{11}^- f_4^+ -f_2^- f_3^- f_4^- f_5^- f_9^- -f_1^- f_2^- f_3^- f_7^- f_9^- +f_2^- f_3^- f_4^- f_5^- f_{11}^- -f_2^- f_3^- f_4^- f_7^- f_{11}^- +f_1^- f_2^- f_3^- f_5^- f_9^- +f_1^- f_2^- f_5^- f_9^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7+E_5)(-E_2+E_{10})(-E_9+E_{11})}\\ \frac{+f_3^- f_4^- f_5^- f_{11}^- f_1^+ -f_3^- f_4^- f_7^- f_{11}^- f_1^+ +f_3^- f_4^- f_7^- f_9^- f_1^+ -f_3^- f_4^- f_5^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_3-E_4+E_1+E_{10})(-E_{11}+E_9)}\\ \frac{+f_1^- f_6^- f_7^- f_9^- f_4^+ -f_3^- f_4^- f_5^- f_6^- f_{11}^- +f_3^- f_4^- f_6^- f_7^- f_{11}^- -f_1^- f_6^- f_7^- f_{11}^- f_4^+ -f_1^- f_3^- f_6^- f_7^- f_{11}^- -f_3^- f_4^- f_6^- f_7^- f_9^- +f_1^- f_3^- f_5^- f_6^- f_{11}^- +f_1^- f_5^- f_6^- f_{11}^- f_4^+ +f_1^- f_3^- f_6^- f_7^- f_9^- -f_1^- f_5^- f_6^- f_9^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_9^- +f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7+E_5)(-E_6+E_{10})(-E_9+E_{11})}\\ \frac{+f_3^- f_4^- f_5^- f_{10}^- f_{11}^- +f_1^- f_3^- f_7^- f_{10}^- f_{11}^- +f_1^- f_7^- f_{10}^- f_{11}^- f_4^+ -f_3^- f_4^- f_5^- f_9^- f_{10}^- +f_3^- f_4^- f_7^- f_9^- f_{10}^- -f_1^- f_5^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_7^- f_9^- f_{10}^- f_4^+ -f_3^- f_4^- f_7^- f_{10}^- f_{11}^- -f_1^- f_3^- f_5^- f_{10}^- f_{11}^- +f_1^- f_3^- f_5^- f_9^- f_{10}^- +f_1^- f_5^- f_9^- f_{10}^- f_4^+ -f_1^- f_3^- f_7^- f_9^- f_{10}^-}{(-E_5+E_7)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_{10}+E_6)(-E_{11}+E_9)}\end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|9,2\}\{9,10|V|11,10\}\{11,12|V|7,12\}f_5^- f_{10}^- f_{12}^-\begin{pmatrix}\frac{+f_1^- f_2^- f_7^- f_4^+ +f_1^- f_2^- f_3^- f_7^- -f_2^- f_3^- f_4^- f_7^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_7+E_9)(-E_7+E_{11})}\\ \frac{+f_1^- f_2^- f_3^- f_9^- +f_1^- f_2^- f_9^- f_4^+ -f_2^- f_3^- f_4^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_9+E_7)(-E_9+E_{11})}\\ \frac{+f_1^- f_2^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_{11}^- -f_2^- f_3^- f_4^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_{11}+E_7)(-E_{11}+E_9)}\\ \frac{+f_3^- f_4^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_7+E_9)(-E_7+E_{11})}\\ \frac{+f_3^- f_4^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_9+E_7)(-E_9+E_{11})}\\ \frac{+f_3^- f_4^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_{11}+E_7)(-E_{11}+E_9)}\\ \frac{+f_1^- f_3^- f_6^- f_7^- +f_1^- f_6^- f_7^- f_4^+ -f_3^- f_4^- f_6^- f_7^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_7+E_9)(-E_7+E_{11})}\\ \frac{+f_3^- f_4^- f_6^- f_9^- -f_1^- f_6^- f_9^- f_4^+ -f_1^- f_3^- f_6^- f_9^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_9+E_7)(-E_9+E_{11})}\\ \frac{+f_3^- f_4^- f_6^- f_{11}^- -f_1^- f_3^- f_6^- f_{11}^- -f_1^- f_6^- f_{11}^- f_4^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_{11}+E_7)(-E_{11}+E_9)}\\ \frac{+f_1^- f_7^- f_8^- f_4^+ +f_1^- f_3^- f_7^- f_8^- -f_3^- f_4^- f_7^- f_8^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_7+E_9)(-E_7+E_{11})}\\ \frac{+f_1^- f_3^- f_8^- f_9^- -f_3^- f_4^- f_8^- f_9^- +f_1^- f_8^- f_9^- f_4^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_9+E_7)(-E_9+E_{11})}\\ \frac{+f_1^- f_3^- f_8^- f_{11}^- +f_1^- f_8^- f_{11}^- f_4^+ -f_3^- f_4^- f_8^- f_{11}^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_{11}+E_7)(-E_{11}+E_9)}\end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,2\}\{7,8|V|9,8\}\{9,10|V|11,10\}\{11,12|V|5,12\}f_8^-f_{10}^-f_{12}^- \begin{pmatrix} \frac{+f_1^-f_2^-f_3^-f_5^- -f_2^-f_3^-f_4^-f_5^- +f_1^-f_2^-f_5^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_5+E_7)(-E_5+E_9)(-E_5+E_{11})} \\ \frac{+f_1^-f_2^-f_3^-f_7^- +f_1^-f_2^-f_7^-f_4^+ -f_2^-f_3^-f_4^-f_7^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7+E_5)(-E_7+E_9)(-E_7+E_{11})} \\ \frac{+f_2^-f_3^-f_4^-f_9^- -f_1^-f_2^-f_3^-f_9^- -f_1^-f_2^-f_9^-f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_9+E_5)(-E_9+E_7)(-E_9+E_{11})} \\ \frac{+f_1^-f_2^-f_{11}^-f_4^+ +f_1^-f_2^-f_3^-f_{11}^- -f_2^-f_3^-f_4^-f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_{11}+E_5)(-E_{11}+E_7)(-E_{11}+E_9)} \\ \frac{+f_3^-f_4^-f_5^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_5+E_9)(-E_5+E_{11})} \\ \frac{+f_3^-f_4^-f_7^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_7+E_9)(-E_7+E_{11})} \\ \frac{+f_3^-f_4^-f_9^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_9+E_7)(-E_9+E_{11})} \\ \frac{+f_3^-f_4^-f_{11}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_{11}+E_5)(-E_{11}+E_7)(-E_{11}+E_9)} \\ \frac{+f_1^-f_5^-f_6^-f_4^+ +f_1^-f_3^-f_5^-f_6^- -f_3^-f_4^-f_5^-f_6^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5+E_7)(-E_5+E_9)(-E_5+E_{11})} \\ \frac{+f_1^-f_6^-f_7^-f_4^+ -f_3^-f_4^-f_6^-f_7^- +f_1^-f_3^-f_6^-f_7^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7+E_5)(-E_7+E_9)(-E_7+E_{11})} \\ \frac{+f_1^-f_3^-f_6^-f_9^- +f_1^-f_6^-f_9^-f_4^+ -f_3^-f_4^-f_6^-f_9^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9+E_5)(-E_9+E_7)(-E_9+E_{11})} \\ \frac{+f_1^-f_6^-f_{11}^-f_4^+ +f_1^-f_3^-f_6^-f_{11}^- -f_3^-f_4^-f_6^-f_{11}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_{11}+E_5)(-E_{11}+E_7)(-E_{11}+E_9)} \end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,2\}\{7,8|V|9,8\}\{9,10|V|5,12\}\{11,12|V|11,10\}f_8^-f_{11}^- \begin{pmatrix} \frac{+f_1^-f_2^-f_5^-f_{12}^-f_4^+ +f_1^-f_2^-f_3^-f_5^-f_{12}^- -f_2^-f_3^-f_4^-f_5^-f_{12}^- -f_1^-f_2^-f_5^-f_{10}^-f_4^+ +f_2^-f_3^-f_4^-f_5^-f_{10}^- -f_1^-f_2^-f_3^-f_5^-f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_5+E_7)(-E_5+E_9)(-E_{12}+E_{10})} \\ \frac{+f_2^-f_3^-f_4^-f_7^-f_{10}^- -f_1^-f_2^-f_7^-f_{10}^-f_4^+ -f_2^-f_3^-f_4^-f_7^-f_{12}^- +f_1^-f_2^-f_3^-f_7^-f_{12}^- +f_1^-f_2^-f_7^-f_{12}^-f_4^+ -f_1^-f_2^-f_3^-f_7^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7+E_5)(-E_7+E_9)(-E_{10}+E_{12})} \\ \frac{+f_2^-f_3^-f_4^-f_9^-f_{10}^- +f_1^-f_2^-f_3^-f_9^-f_{12}^- +f_1^-f_2^-f_9^-f_{12}^-f_4^+ -f_2^-f_3^-f_4^-f_9^-f_{12}^- -f_1^-f_2^-f_9^-f_{10}^-f_4^+ -f_1^-f_2^-f_3^-f_9^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_9+E_5)(-E_9+E_7)(-E_{10}+E_{12})} \\ \frac{+f_3^-f_4^-f_5^-f_{12}^-f_1^+ -f_3^-f_4^-f_5^-f_{10}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_5+E_9)(-E_{12}+E_{10})} \\ \frac{+f_3^-f_4^-f_7^-f_{10}^-f_1^+ -f_3^-f_4^-f_7^-f_{12}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_7+E_9)(-E_{10}+E_{12})} \\ \frac{+f_3^-f_4^-f_9^-f_{12}^-f_1^+ -f_3^-f_4^-f_9^-f_{10}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_9+E_7)(-E_{12}+E_{10})} \\ \frac{+f_3^-f_4^-f_5^-f_6^-f_{12}^- -f_1^-f_5^-f_6^-f_{12}^-f_4^+ -f_1^-f_3^-f_5^-f_6^-f_{12}^- +f_1^-f_5^-f_6^-f_{10}^-f_4^+ +f_1^-f_3^-f_5^-f_6^-f_{10}^- -f_3^-f_4^-f_5^-f_6^-f_{10}^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_5+E_9)(-E_{12}+E_{10})} \\ \frac{+f_1^-f_6^-f_7^-f_{12}^-f_4^+ -f_3^-f_4^-f_6^-f_7^-f_{12}^- +f_3^-f_4^-f_6^-f_7^-f_{10}^- +f_1^-f_3^-f_6^-f_7^-f_{12}^- -f_1^-f_3^-f_6^-f_7^-f_{10}^- -f_1^-f_6^-f_7^-f_{10}^-f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7+E_5)(-E_7+E_9)(-E_{12}+E_{10})} \\ \frac{+f_1^-f_3^-f_6^-f_9^-f_{12}^- +f_1^-f_6^-f_9^-f_{12}^-f_4^+ -f_1^-f_6^-f_9^-f_{10}^-f_4^+ -f_3^-f_4^-f_6^-f_9^-f_{12}^- +f_3^-f_4^-f_6^-f_9^-f_{10}^- -f_1^-f_3^-f_6^-f_9^-f_{10}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9+E_5)(-E_9+E_7)(-E_{12}+E_{10})} \end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|9,2\}\{9,10|V|11,10\}\{11,12|V|5,8\}f_{10}^{-}\left(\begin{array}{c}
\frac{+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{2}^{+}-f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{2}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_7-E_{12}+E_2+E_5)}\\
\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{9}^{-}f_{7}^{+}-f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{2}^{+}f_{7}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{9}^{-}f_{4}^{+}f_{7}^{+}+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}f_{2}^{+}}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_2-E_5+E_7+E_{12})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{12}^{-}f_{2}^{+}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{9}^{-}f_{12}^{-}f_{8}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{2}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{11}^{-}f_{7}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{11}^{-}f_{4}^{+}f_{7}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{2}^{+}-f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{2}^{+}f_{7}^{+}}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_2-E_5+E_7+E_{12})}\\
\frac{+f_{1}^{-}f_{2}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{11}^{-}f_{2}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{8}^{-}f_{11}^{-}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{8}^{-}f_{11}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{11}^{-}f_{12}^{-}f_{2}^{+}f_{8}^{+}}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_{11}-E_{12}+E_5+E_8)}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{12}^{-}f_{2}^{+}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{9}^{-}f_{12}^{-}}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_9+E_{11})(-E_2-E_5+E_7+E_{12})(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{11}^{-}f_{12}^{-}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{12}^{-}f_{2}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_{11}+E_9)(-E_2-E_5+E_7+E_{12})(-E_{11}-E_{12}+E_5+E_8)}\\
\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{8}^{-}f_{12}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{8}^{-}f_{4}^{+}f_{12}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{2}^{+}f_{12}^{+}}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{12})(-E_5-E_8+E_9+E_{12})(-E_5-E_8+E_{11}+E_{12})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_7-E_8+E_3+E_4+E_{11})(-E_1-E_7-E_{12}+E_3+E_4+E_5)}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{7}^{+}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_3-E_4-E_5+E_1+E_7+E_{12})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{12}^{-}f_{8}^{+}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{7}^{+}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4-E_5+E_1+E_7+E_{12})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{11}^{-}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_{11}-E_{12}+E_5+E_8)}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{12}^{-}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_{11})(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{12}^{-}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_{11}+E_9)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_{11}-E_{12}+E_5+E_8)}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{12}^{+}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_5-E_8+E_9+E_{12})(-E_5-E_8+E_{11}+E_{12})}\\
\frac{+f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}-f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}-f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{4}^{+}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{6}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{6}^{+}+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_7-E_8+E_6+E_{11})(-E_7-E_{12}+E_5+E_6)}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}f_{6}^{+}-f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{4}^{+}f_{7}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{6}^{+}f_{7}^{+}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{7}^{+}-f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_7-E_{12}+E_5+E_6)}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}+f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{12}^{-}f_{6}^{+}f_{8}^{+}+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{6}^{+}-f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}f_{8}^{+}-f_{1}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_5-E_8+E_9+E_{12})}\\
\frac{+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{4}^{+}f_{7}^{+}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{7}^{+}-f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{6}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{6}^{+}f_{7}^{+}-f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{11}^{-}f_{4}^{+}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{11}^{-}-f_{1}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}-f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}+f_{3}^{-}f_{4}^{-}f_{11}^{-}f_{12}^{-}f_{6}^{+}f_{8}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{11}^{-}f_{6}^{+}}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_5-E_8+E_{11}+E_{12})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{12}^{-}f_{6}^{+}}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9+E_{11})(-E_5-E_6+E_7+E_{12})(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{12}^{-}f_{6}^{+}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_{11}+E_9)(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_5+E_8)}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{12}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{6}^{+}f_{12}^{+}+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{4}^{+}f_{12}^{+}}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_8+E_9+E_{12})(-E_5-E_8+E_{11}+E_{12})}\\
\frac{+f_{1}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}f_{9}^{+}-f_{1}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{4}^{+}f_{9}^{+}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{7}^{+}f_{8}^{+}-f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{+}-f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{12}^{-}f_{7}^{+}f_{8}^{+}+f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{9}^{+}}{(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_7-E_8+E_6+E_9)(-E_9+E_{11})(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{7}^{+}f_{8}^{+}-f_{1}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{4}^{+}f_{11}^{+}-f_{3}^{-}f_{4}^{-}f_{11}^{-}f_{12}^{-}f_{7}^{+}f_{8}^{+}+f_{1}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}f_{11}^{+}-f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{11}^{+}+f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{11}^{+}}{(-E_7-E_8+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_7-E_8+E_6+E_{11})(-E_{11}+E_9)(-E_5-E_8+E_{11}+E_{12})}\\
\frac{+f_{1}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}f_{5}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{7}^{+}f_{12}^{+}+f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}f_{5}^{+}}{(-E_9+E_{11})(-E_7-E_{12}+E_2+E_5)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_7-E_{12}+E_5+E_6)(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{5}^{+}+f_{1}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}f_{5}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{7}^{+}f_{12}^{+}}{(-E_{11}+E_9)(-E_7-E_{12}+E_2+E_5)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_5+E_8)}\\
\frac{+f_{1}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}f_{5}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{7}^{+}f_{12}^{+}+f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{5}^{+}}{(-E_7-E_{12}+E_2+E_5)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_7-E_{12}+E_5+E_6)(-E_5-E_8+E_9+E_{12})(-E_5-E_8+E_{11}+E_{12})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|9,2\}\{9,10|V|7,12\}\{11,12|V|11,10\}f_{5}^{-}f_{11}^{-}\left(\begin{array}{c}
\frac{+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{12}^{-}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{9}^{-}f_{12}^{-}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{12}^{-}-f_{1}^{-}f_{2}^{-}f_{9}^{-}f_{10}^{-}f_{4}^{+}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{10}^{-}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{9}^{-}f_{10}^{-}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{12}^{-}+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{10}^{-}-f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{12}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{10}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{10}^{-}}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2+E_8)(-E_7+E_9)(-E_{12}+E_{10})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{12}^{-}f_{1}^{+}+f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{10}^{-}f_{1}^{+}-f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{12}^{-}f_{1}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{10}^{-}f_{1}^{+}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_7+E_9)(-E_{12}+E_{10})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{10}^{-}+f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{10}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{7}^{-}f_{10}^{-}-f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}-f_{1}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{4}^{+}+f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{7}^{-}f_{12}^{-}+f_{1}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}-f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{12}^{-}-f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}-f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{12}^{-}f_{4}^{+}+f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_7+E_9)(-E_{10}+E_{12})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}-f_{1}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}-f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}-f_{3}^{-}f_{4}^{-}f_{8}^{-}f_{9}^{-}f_{10}^{-}-f_{1}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{4}^{+}+f_{1}^{-}f_{3}^{-}f_{8}^{-}f_{9}^{-}f_{10}^{-}-f_{1}^{-}f_{3}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}+f_{1}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}+f_{3}^{-}f_{4}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}+f_{1}^{-}f_{8}^{-}f_{9}^{-}f_{10}^{-}f_{4}^{+}}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_7+E_9)(-E_{12}+E_{10})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,2\}\{7,8|V|9,12\}\{9,10|V|5,10\}\{11,12|V|11,8\}f_{10}^{-}f_{11}^{-}\left(\begin{array}{c}
\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{8}^{-}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{12}^{-}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{12}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{8}^{-}f_{4}^{+}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{12}^{-}}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_5+E_7)(-E_5+E_9)(-E_8+E_{12})}\\
\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}-f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{12}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{8}^{-}f_{4}^{+}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{12}^{-}+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{12}^{-}}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7+E_5)(-E_7+E_9)(-E_8+E_{12})}\\
\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{8}^{-}f_{9}^{-}+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{12}^{-}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{9}^{-}f_{12}^{-}+f_{1}^{-}f_{2}^{-}f_{8}^{-}f_{9}^{-}f_{4}^{+}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{8}^{-}f_{9}^{-}-f_{1}^{-}f_{2}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9+E_5)(-E_9+E_7)(-E_8+E_{12})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{12}^{-}f_{1}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{1}^{+}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_5+E_9)(-E_{12}+E_8)}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{12}^{-}f_{1}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{1}^{+}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_7+E_9)(-E_{12}+E_8)}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{12}^{-}f_{1}^{+}-f_{3}^{-}f_{4}^{-}f_{8}^{-}f_{9}^{-}f_{1}^{+}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_9+E_7)(-E_{12}+E_8)}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{12}^{-}+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{12}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{12}^{-}-f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{4}^{+}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}-f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5+E_7)(-E_5+E_9)(-E_{12}+E_8)}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{12}^{-}+f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{12}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{7}^{-}f_{12}^{-}+f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}-f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}-f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{4}^{+}}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7+E_5)(-E_7+E_9)(-E_{12}+E_8)}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}-f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}-f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}+f_{1}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}-f_{1}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}f_{4}^{+}}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_9+E_7)(-E_8+E_{12})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|9,12\}\{9,10|V|11,2\}\{11,12|V|7,10\}f_5^- \left(\begin{array}{r}
\frac{+f_1^-f_2^-f_3^-f_7^-f_{11}^-f_9^+ +f_1^-f_2^-f_3^-f_9^-f_{10}^-f_{12}^- -f_1^-f_2^-f_3^-f_7^-f_9^-f_{10}^- -f_1^-f_2^-f_7^-f_9^-f_{10}^-f_4^+ +f_1^-f_2^-f_9^-f_{10}^-f_{12}^-f_4^+ -f_1^-f_2^-f_9^-f_{11}^-f_{12}^-f_4^+ -f_1^-f_2^-f_3^-f_9^-f_{11}^-f_{12}^- +f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_2^+ -f_3^-f_4^-f_7^-f_{11}^-f_2^+f_9^+ +f_1^-f_2^-f_7^-f_{11}^-f_4^+f_9^+ -f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_2^+ +f_3^-f_4^-f_7^-f_9^-f_{10}^-f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_7+E_9+E_{12})} \\
\frac{+f_3^-f_4^-f_{11}^-f_{12}^-f_2^+f_{10}^+ -f_1^-f_2^-f_{11}^-f_{12}^-f_4^+f_{10}^+ -f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_2^+ +f_1^-f_2^-f_7^-f_{10}^-f_{11}^-f_4^+ -f_1^-f_2^-f_3^-f_{11}^-f_{12}^-f_{10}^+ +f_1^-f_2^-f_3^-f_7^-f_{10}^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_1^-f_2^-f_7^-f_{10}^-f_4^+f_{12}^+ -f_3^-f_4^-f_7^-f_{10}^-f_2^+f_{12}^+ +f_1^-f_2^-f_3^-f_7^-f_{10}^-f_{12}^+ -f_1^-f_2^-f_7^-f_{11}^-f_{12}^-f_4^+ +f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_2^+ -f_1^-f_2^-f_3^-f_7^-f_{11}^-f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_2-E_7+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_9^-f_{10}^- +f_1^-f_3^-f_4^-f_9^-f_{11}^-f_{12}^- -f_1^-f_3^-f_4^-f_9^-f_{10}^-f_{12}^- -f_1^-f_3^-f_4^-f_7^-f_{11}^-f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_7+E_1+E_9+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_{11}^-f_{12}^-f_{10}^+ -f_1^-f_3^-f_4^-f_7^-f_{10}^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_{10}^-f_{12}^+ -f_1^-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_6^+ +f_1^-f_3^-f_6^-f_9^-f_{10}^-f_{12}^- -f_3^-f_4^-f_7^-f_{11}^-f_6^+f_9^+ -f_1^-f_6^-f_9^-f_{11}^-f_{12}^-f_4^+ -f_1^-f_3^-f_6^-f_9^-f_{11}^-f_{12}^- -f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_6^+ +f_1^-f_6^-f_9^-f_{10}^-f_{12}^-f_4^+ +f_1^-f_3^-f_6^-f_7^-f_{11}^-f_9^+ +f_1^-f_6^-f_7^-f_{11}^-f_4^+f_9^+ -f_1^-f_6^-f_7^-f_9^-f_{10}^-f_4^+ -f_1^-f_3^-f_6^-f_7^-f_9^-f_{10}^- +f_3^-f_4^-f_7^-f_9^-f_{10}^-f_6^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_6+E_7)} \\
\frac{+f_1^-f_3^-f_6^-f_7^-f_{10}^-f_{11}^- -f_1^-f_3^-f_6^-f_{11}^-f_{12}^-f_{10}^+ +f_3^-f_4^-f_{11}^-f_{12}^-f_6^+f_{10}^+ -f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_6^+ +f_1^-f_6^-f_7^-f_{10}^-f_{11}^-f_4^+ -f_1^-f_6^-f_{11}^-f_{12}^-f_4^+f_{10}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_6^+ -f_1^-f_6^-f_7^-f_{11}^-f_{12}^-f_4^+ -f_1^-f_3^-f_6^-f_7^-f_{11}^-f_{12}^- -f_3^-f_4^-f_7^-f_{10}^-f_6^+f_{12}^+ +f_1^-f_3^-f_6^-f_7^-f_{10}^-f_{12}^+ +f_1^-f_6^-f_7^-f_{10}^-f_4^+f_{12}^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_6-E_7+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_1^-f_3^-f_8^-f_9^-f_{10}^-f_{12}^- -f_1^-f_7^-f_8^-f_9^-f_{10}^-f_4^+ -f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_8^+ -f_1^-f_3^-f_7^-f_8^-f_9^-f_{10}^- +f_1^-f_8^-f_9^-f_{10}^-f_{12}^-f_4^+ +f_3^-f_4^-f_7^-f_9^-f_{10}^-f_8^+ -f_1^-f_8^-f_9^-f_{11}^-f_{12}^-f_4^+ +f_1^-f_3^-f_7^-f_8^-f_{11}^-f_9^+ +f_1^-f_7^-f_8^-f_{11}^-f_4^+f_9^+ +f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_8^+ -f_1^-f_3^-f_8^-f_9^-f_{11}^-f_{12}^- -f_3^-f_4^-f_7^-f_{11}^-f_8^+f_9^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^-f_3^-f_7^-f_8^-f_{10}^-f_{11}^- -f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_8^+ +f_3^-f_4^-f_{11}^-f_{12}^-f_8^+f_{10}^+ -f_1^-f_8^-f_{11}^-f_{12}^-f_4^+f_{10}^+ +f_1^-f_7^-f_8^-f_{10}^-f_{11}^-f_4^+ -f_1^-f_3^-f_8^-f_{11}^-f_{12}^-f_{10}^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_7^-f_8^-f_{10}^-f_{12}^+ +f_1^-f_7^-f_8^-f_{10}^-f_4^+f_{12}^+ -f_3^-f_4^-f_7^-f_{10}^-f_8^+f_{12}^+ -f_1^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^+ +f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_8^+ -f_1^-f_3^-f_7^-f_8^-f_{11}^-f_{12}^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_7^-f_9^-f_{10}^-f_{11}^+ +f_3^-f_4^-f_{11}^-f_{12}^-f_9^+f_{10}^+ -f_1^-f_9^-f_{10}^-f_{12}^-f_4^+f_{11}^+ +f_1^-f_7^-f_9^-f_{10}^-f_4^+f_{11}^+ -f_1^-f_3^-f_9^-f_{10}^-f_{12}^-f_{11}^+ -f_3^-f_4^-f_7^-f_{11}^-f_9^+f_{10}^+}{(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_9^-f_{11}^-f_{12}^-f_4^+f_7^+ -f_1^-f_9^-f_{10}^-f_{12}^-f_4^+f_7^+ +f_1^-f_3^-f_9^-f_{11}^-f_{12}^-f_7^+ +f_3^-f_4^-f_7^-f_{10}^-f_9^+f_{12}^+ -f_1^-f_3^-f_9^-f_{10}^-f_{12}^-f_7^+ -f_3^-f_4^-f_7^-f_{11}^-f_9^+f_{12}^+}{(-E_9-E_{12}+E_2+E_7)(-E_1-E_9-E_{12}+E_3+E_4+E_7)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_7+E_{10})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|9,2\}\{9,10|V|11,8\}\{11,12|V|5,12\}f_{12}^- \left(\begin{array}{r}
\frac{+f_3^-f_4^-f_5^-f_9^-f_2^+f_7^+ -f_1^-f_2^-f_3^-f_5^-f_9^-f_7^+ -f_1^-f_2^-f_5^-f_9^-f_4^+f_7^+ -f_3^-f_4^-f_5^-f_7^-f_8^-f_2^+ +f_1^-f_2^-f_3^-f_5^-f_7^-f_8^- +f_1^-f_2^-f_5^-f_7^-f_8^-f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_2-E_5+E_7+E_{10})(-E_5+E_{11})} \\
\frac{+f_3^-f_4^-f_7^-f_9^-f_{10}^-f_2^+ -f_1^-f_2^-f_7^-f_9^-f_{10}^-f_4^+ -f_3^-f_4^-f_7^-f_8^-f_{10}^-f_2^+ -f_1^-f_2^-f_3^-f_7^-f_9^-f_{10}^- +f_1^-f_2^-f_7^-f_8^-f_{10}^-f_4^+ +f_1^-f_2^-f_3^-f_7^-f_8^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_2+E_5)(-E_7-E_{10}+E_2+E_{11})} \\
\frac{+f_3^-f_4^-f_5^-f_8^-f_9^-f_2^+ -f_1^-f_2^-f_3^-f_5^-f_8^-f_9^- -f_1^-f_2^-f_5^-f_8^-f_9^-f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_5-E_8+E_9+E_{10})(-E_5+E_{11})} \\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_2^+f_8^+ -f_1^-f_2^-f_9^-f_{10}^-f_4^+f_8^+ -f_1^-f_2^-f_3^-f_9^-f_{10}^-f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_1^-f_2^-f_3^-f_7^-f_8^-f_{11}^- +f_1^-f_2^-f_7^-f_8^-f_{11}^-f_4^+ +f_3^-f_4^-f_9^-f_{11}^-f_2^+f_7^+ -f_3^-f_4^-f_7^-f_8^-f_{11}^-f_2^+ -f_1^-f_2^-f_9^-f_{11}^-f_4^+f_7^+ -f_1^-f_2^-f_3^-f_9^-f_{11}^-f_7^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_9)(-E_{11}+E_5)(-E_2-E_{11}+E_7+E_{10})} \\
\frac{+f_1^-f_2^-f_8^-f_9^-f_{11}^-f_4^+ +f_1^-f_2^-f_3^-f_8^-f_9^-f_{11}^- -f_3^-f_4^-f_8^-f_9^-f_{11}^-f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_{11}+E_5)(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_1^-f_2^-f_5^-f_9^-f_{10}^-f_4^+ -f_3^-f_4^-f_5^-f_9^-f_{10}^-f_2^+ +f_1^-f_2^-f_3^-f_5^-f_9^-f_{10}^- +f_3^-f_4^-f_5^-f_8^-f_2^+f_{10}^+ -f_1^-f_2^-f_3^-f_5^-f_8^-f_{10}^+ -f_1^-f_2^-f_5^-f_8^-f_4^+f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_9-E_{10}+E_5+E_8)(-E_5+E_{11})} \\
\frac{+f_1^-f_2^-f_9^-f_{10}^-f_{11}^-f_4^+ +f_3^-f_4^-f_8^-f_{11}^-f_2^+f_{10}^+ -f_1^-f_2^-f_8^-f_{11}^-f_4^+f_{10}^+ -f_1^-f_2^-f_3^-f_8^-f_{11}^-f_{10}^+ +f_1^-f_2^-f_3^-f_9^-f_{10}^-f_{11}^- -f_3^-f_4^-f_9^-f_{10}^-f_{11}^-f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_{11}+E_5)(-E_2-E_{11}+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_9^-f_7^+ -f_1^-f_3^-f_4^-f_5^-f_7^-f_8^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_5+E_{11})} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_9^-f_{10}^- -f_1^-f_3^-f_4^-f_7^-f_8^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_1-E_7-E_{10}+E_3+E_4+E_{11})} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_8^-f_9^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_5-E_8+E_9+E_{10})(-E_5+E_{11})} \\
\frac{+f_1^-f_3^-f_4^-f_9^-f_{10}^-f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_8^-f_{11}^- -f_1^-f_3^-f_4^-f_9^-f_{11}^-f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_{11}+E_5)(-E_3-E_4-E_{11}+E_1+E_7+E_{10})} \\
\frac{+f_1^-f_3^-f_4^-f_8^-f_9^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_{11}+E_5)(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_9^-f_{10}^- -f_1^-f_3^-f_4^-f_5^-f_8^-f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_9-E_{10}+E_5+E_8)(-E_5+E_{11})} \\
\frac{+f_1^-f_3^-f_4^-f_8^-f_{11}^-f_{10}^+ -f_1^-f_3^-f_4^-f_9^-f_{10}^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_{11}+E_5)(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_3^-f_4^-f_5^-f_7^-f_8^-f_6^+ -f_1^-f_3^-f_5^-f_6^-f_7^-f_8^- -f_1^-f_5^-f_6^-f_7^-f_8^-f_4^+ -f_3^-f_4^-f_5^-f_9^-f_6^+f_7^+ +f_1^-f_3^-f_5^-f_6^-f_9^-f_7^+ +f_1^-f_5^-f_6^-f_9^-f_4^+f_7^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_5+E_{11})} \\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{10}^-f_6^+ -f_3^-f_4^-f_7^-f_9^-f_{10}^-f_6^+ -f_1^-f_6^-f_7^-f_8^-f_{10}^-f_4^+ +f_1^-f_3^-f_6^-f_7^-f_9^-f_{10}^- +f_1^-f_6^-f_7^-f_9^-f_{10}^-f_4^+ -f_1^-f_3^-f_6^-f_7^-f_8^-f_{10}^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_6+E_{11})} \\
\frac{+f_1^-f_3^-f_5^-f_6^-f_8^-f_9^- -f_3^-f_4^-f_5^-f_8^-f_9^-f_6^+ +f_1^-f_5^-f_6^-f_8^-f_9^-f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_5-E_8+E_9+E_{10})(-E_5+E_{11})} \\
\frac{+f_1^-f_3^-f_6^-f_9^-f_{10}^-f_8^+ -f_3^-f_4^-f_9^-f_{10}^-f_6^+f_8^+ +f_1^-f_6^-f_9^-f_{10}^-f_4^+f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_3^-f_4^-f_9^-f_{11}^-f_6^+f_7^+ -f_1^-f_6^-f_9^-f_{11}^-f_4^+f_7^+ +f_1^-f_3^-f_6^-f_7^-f_8^-f_{11}^- -f_3^-f_4^-f_7^-f_8^-f_{11}^-f_6^+ +f_1^-f_6^-f_7^-f_8^-f_{11}^-f_4^+ -f_1^-f_3^-f_6^-f_9^-f_{11}^-f_7^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6-E_9+E_7+E_8)(-E_{11}+E_5)(-E_6-E_{11}+E_7+E_{10})} \\
\frac{+f_1^-f_6^-f_8^-f_9^-f_{11}^-f_4^+ +f_1^-f_3^-f_6^-f_8^-f_9^-f_{11}^- -f_3^-f_4^-f_8^-f_9^-f_{11}^-f_6^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_{11}+E_5)(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_1^-f_5^-f_6^-f_8^-f_4^+f_{10}^+ +f_1^-f_3^-f_5^-f_6^-f_8^-f_{10}^+ -f_3^-f_4^-f_5^-f_8^-f_6^+f_{10}^+ -f_1^-f_5^-f_6^-f_9^-f_{10}^-f_4^+ -f_1^-f_3^-f_5^-f_6^-f_9^-f_{10}^- +f_3^-f_4^-f_5^-f_9^-f_{10}^-f_6^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_9+E_{10})(-E_5+E_{11})} \\
\frac{+f_1^-f_6^-f_9^-f_{10}^-f_{11}^-f_4^+ +f_1^-f_3^-f_6^-f_9^-f_{10}^-f_{11}^- -f_3^-f_4^-f_9^-f_{10}^-f_{11}^-f_6^+ -f_1^-f_3^-f_6^-f_8^-f_{11}^-f_{10}^+ -f_1^-f_6^-f_8^-f_{11}^-f_4^+f_{10}^+ +f_3^-f_4^-f_8^-f_{11}^-f_6^+f_{10}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_{11}+E_5)(-E_6-E_{11}+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_1^-f_5^-f_7^-f_8^-f_4^+f_9^+ -f_3^-f_4^-f_5^-f_9^-f_7^+f_8^+ +f_1^-f_3^-f_5^-f_7^-f_8^-f_9^+}{(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{10})(-E_5+E_{11})} \\
\frac{+f_1^-f_7^-f_8^-f_{10}^-f_4^+f_9^+ +f_1^-f_3^-f_7^-f_8^-f_{10}^-f_9^+ -f_3^-f_4^-f_9^-f_{10}^-f_7^+f_8^+}{(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_3^-f_4^-f_9^-f_{11}^-f_7^+f_8^+ -f_1^-f_3^-f_7^-f_8^-f_{11}^-f_9^+ -f_1^-f_7^-f_8^-f_{11}^-f_4^+f_9^+}{(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_7-E_8+E_6+E_9)(-E_{11}+E_5)(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_1^-f_3^-f_7^-f_8^-f_{10}^-f_5^+ +f_1^-f_7^-f_8^-f_{10}^-f_4^+f_5^+ -f_3^-f_4^-f_5^-f_8^-f_7^+f_{10}^+ -f_1^-f_3^-f_7^-f_9^-f_{10}^-f_5^+ -f_1^-f_7^-f_9^-f_{10}^-f_4^+f_5^+ +f_3^-f_4^-f_5^-f_9^-f_7^+f_{10}^+}{(-E_7-E_{10}+E_2+E_5)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_7-E_{10}+E_5+E_6)(-E_5-E_8+E_9+E_{10})(-E_5+E_{11})} \\
\frac{+f_3^-f_4^-f_9^-f_{11}^-f_7^+f_{10}^+ +f_1^-f_7^-f_8^-f_{10}^-f_4^+f_{11}^+ -f_3^-f_4^-f_8^-f_{11}^-f_7^+f_{10}^+ -f_1^-f_7^-f_9^-f_{10}^-f_4^+f_{11}^+ -f_1^-f_3^-f_7^-f_9^-f_{10}^-f_{11}^+ +f_1^-f_3^-f_7^-f_8^-f_{10}^-f_{11}^+}{(-E_{11}+E_5)(-E_7-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_7-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})}
\end{array}\right)$$

$$
-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|5,10\}\{9,10|V|11,2\}\{11,12|V|9,8\}
\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- -f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_2^+ -f_1^- f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- +f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_5+E_{10})(-E_2-E_5-E_{11}+E_7+E_8+E_9)(-E_2-E_5+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- +f_1^- f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ -f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_2^+ +f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_2^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- -f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_5-E_{10}+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_5+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_8^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_{10}^+ +f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ f_8^+ -f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ f_8^+ +f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ f_8^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_8^+ -f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ +f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^+ -f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_8^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7-E_8+E_5+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{11}^- f_2^+ f_9^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_9^+ -f_1^- f_2^- f_5^- f_7^- f_{11}^- f_4^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_5+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_{11}^- f_8^+ f_9^+ +f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_8^+ f_9^+ +f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_{11}^+ -f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_{11}^+ -f_3^- f_4^- f_5^- f_{11}^- f_2^+ f_8^+ f_9^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- -f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ f_{12}^+ +f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^+ -f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ +f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ f_{12}^+ -f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^+ -f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ +f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_2+E_5)(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_2^+ f_9^+ f_{12}^+ +f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_9^+ -f_1^- f_2^- f_3^- f_5^- f_{11}^- f_9^+ f_{12}^+ -f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_9^+ f_{12}^+ -f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_2^+ f_9^+ +f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_5+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+ f_{12}^+ +f_1^- f_2^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{12}^- -f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- f_2^+ -f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{12}^+ +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ -f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ -f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ f_{12}^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- +f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- -f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_5+E_{10})(-E_3-E_4-E_5-E_{11}+E_1+E_7+E_8+E_9)(-E_3-E_4-E_5+E_1+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- -f_1^- f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_{10}+E_7+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_5+E_1+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{10}^+ +f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ -f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^+ -f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_5+E_{10})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5-E_{11}+E_1+E_7+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4-E_5+E_1+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{11}^+ -f_1^- f_3^- f_4^- f_5^- f_{11}^- f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8-E_9+E_3+E_4+E_5+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^+ -f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- -f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^+ +f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_1-E_{10}-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{11}^- f_9^+ f_{12}^+ -f_1^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- -f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^+ -f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- +f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_3-E_4-E_8+E_1+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- +f_1^- f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_6^+ +f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_6^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- -f_1^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_5+E_{10})(-E_7-E_8-E_9+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- +f_1^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ -f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_6^+ -f_1^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_6^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_{10}+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+ +f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_8^+ +f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{10}^+ +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_{10}^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{10}^+ -f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+ +f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+ -f_1^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ +f_3^- f_4^- f_5^- f_9^- f_{10}^- f_6^+ f_8^+ -f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_6^+ f_8^+ -f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ -f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{11}^- f_6^+ f_9^+ -f_1^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ f_9^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_9^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6-E_{11}+E_7+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+ f_9^+ +f_1^- f_3^- f_5^- f_6^- f_{11}^- f_8^+ f_9^+ -f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{11}^+ -f_1^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{11}^+ +f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{11}^+ -f_3^- f_4^- f_5^- f_{11}^- f_6^+ f_8^+ f_9^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6-E_{11}+E_7+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^+ +f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- +f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_6^+ f_{12}^+ -f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_{12}^+ -f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^+ +f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{12}^+ -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+ -f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ +f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_6^+ f_9^+ f_{12}^+ -f_1^- f_5^- f_6^- f_{11}^- f_4^+ f_9^+ f_{12}^+ -f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ f_9^+ +f_1^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ f_9^+ -f_1^- f_3^- f_5^- f_6^- f_{11}^- f_9^+ f_{12}^+ +f_1^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+ +f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_{12}^+ -f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+ f_{12}^+ -f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- +f_1^- f_6^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ +f_3^- f_4^- f_5^- f_8^- f_9^- f_6^+ f_{12}^+ +f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{12}^- -f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ f_{12}^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- f_6^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_{12}+E_5+E_6)(-E_6-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_7^+ f_8^+ f_9^+ -f_1^- f_7^- f_8^- f_9^- f_4^+ f_5^+ f_{11}^+ -f_1^- f_3^- f_7^- f_8^- f_9^- f_5^+ f_{11}^+}{(-E_7-E_8+E_5+E_{10})(-E_7-E_8-E_9+E_2+E_5+E_{11})(-E_3-E_4-E_5-E_{11}+E_1+E_7+E_8+E_9)(-E_7-E_8-E_9+E_5+E_6+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+ f_{10}^+ -f_3^- f_4^- f_5^- f_{11}^- f_8^+ f_9^+ f_{10}^+ -f_1^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ f_{11}^+ +f_1^- f_3^- f_5^- f_9^- f_{10}^- f_8^+ f_{11}^+ +f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_8^+ f_{11}^+ -f_1^- f_3^- f_7^- f_8^- f_9^- f_{10}^- f_{11}^+}{(-E_7-E_8+E_5+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{11}^- f_9^+ f_{10}^+ -f_1^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ -f_1^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+}{(-E_5-E_{10}+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_5-E_9-E_{10}+E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ f_5^+ +f_1^- f_3^- f_7^- f_8^- f_9^- f_{12}^- f_5^+ -f_3^- f_4^- f_5^- f_8^- f_9^- f_7^+ f_{12}^+ -f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_5^+ +f_3^- f_4^- f_5^- f_8^- f_{11}^- f_7^+ f_{12}^+ -f_1^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_5^+}{(-E_7-E_8+E_5+E_{10})(-E_7-E_{12}+E_2+E_5)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_7-E_{12}+E_5+E_6)(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_5^+ +f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_5^+ +f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_7^+ f_{12}^+ -f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_5^+ -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_7^+ f_{12}^+ -f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_5^+}{(-E_5-E_{10}+E_7+E_8)(-E_7-E_{12}+E_2+E_5)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_7-E_{12}+E_5+E_6)(-E_5-E_9-E_{10}+E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^+ f_{12}^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^+ f_{12}^+ -f_1^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ +f_1^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ -f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ +f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_8^+ +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{10}^+ f_{12}^+ -f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+ +f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_8^+ -f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{10}^+ f_{12}^+ +f_1^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+ -f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_8^+}{(-E_5-E_{10}+E_7+E_8)(-E_{10}-E_{12}+E_2+E_8)(-E_3-E_4-E_8+E_1+E_{10}+E_{12})(-E_{10}-E_{12}+E_6+E_8)(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ -f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+ f_{12}^+ +f_3^- f_4^- f_5^- f_{11}^- f_9^+ f_{10}^+ f_{12}^+ -f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_{11}^+ f_{12}^+ +f_1^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_{11}^+ -f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_9^+ f_{10}^+}{(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_{11}-E_{12}+E_8+E_9)(-E_7-E_{11}-E_{12}+E_5+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_7^+ f_9^+ f_{12}^+ -f_1^- f_3^- f_7^- f_{11}^- f_{12}^- f_5^+ f_9^+ -f_1^- f_7^- f_{11}^- f_{12}^- f_4^+ f_5^+ f_9^+}{(-E_7-E_{12}+E_2+E_5)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_8+E_9)(-E_7-E_{11}-E_{12}+E_5+E_9+E_{10})}
\end{array}\right)
$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,2\}\{7,8|V|9,12\}\{9,10|V|11,8\}\{11,12|V|5,10\}\left(\begin{array}{c}
\frac{+f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_9^+ - f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+ f_9^+ - f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_9^+ + f_1^- f_2^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- + f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_5+E_7)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+ - f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- - f_1^- f_2^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ + f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7+E_5)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{11}^- - f_1^- f_2^- f_3^- f_5^- f_8^- f_{10}^- f_{11}^- + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^+ + f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_{11}^+ - f_1^- f_2^- f_5^- f_8^- f_{10}^- f_{11}^- f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_5+E_7)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+ + f_1^- f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- + f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7+E_5)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- f_{12}^- - f_1^- f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- + f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^- + f_1^- f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ + f_2^- f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_5^- f_8^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_5^- f_8^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_5+E_7)(-E_9-E_{12}+E_5+E_8)(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- - f_1^- f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ + f_2^- f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_7^- f_9^- f_{11}^- f_{12}^- + f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- + f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- + f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- + f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7+E_5)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_8^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_8^+ + f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ f_8^+ + f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_1^- f_2^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_2^- f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_{10}^+ + f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ - f_1^- f_2^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ - f_1^- f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_1^+ f_9^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_1^+ f_9^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_1^+ f_{11}^+ - f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ f_{11}^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_1^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_1^+ - f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_1^+ + f_3^- f_4^- f_5^- f_8^- f_{10}^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_9-E_{12}+E_5+E_8)(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_1^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_1^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_1^+ + f_3^- f_4^- f_7^- f_8^- f_{10}^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_1^+ f_8^+ - f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_1^+ f_{10}^+ - f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- f_9^+ - f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_9^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_9^+ + f_1^- f_5^- f_6^- f_8^- f_9^- f_{10}^- f_4^+ - f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- f_{10}^- + f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+ - f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ + f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ + f_3^- f_4^- f_6^- f_7^- f_8^- f_9^- f_{10}^- - f_1^- f_6^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ - f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7+E_5)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+ - f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+ - f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{11}^+ - f_3^- f_4^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^- + f_1^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+ + f_3^- f_4^- f_6^- f_7^- f_8^- f_{10}^- f_{11}^- + f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_1^- f_6^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7+E_5)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_1^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- - f_1^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- + f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^+ + f_1^- f_5^- f_6^- f_8^- f_{10}^- f_4^+ f_{12}^+ - f_3^- f_4^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^+ + f_1^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- + f_1^- f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_9-E_{12}+E_5+E_8)(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- - f_3^- f_4^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^+ + f_1^- f_6^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ + f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- + f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- - f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- + f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- + f_1^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7+E_5)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_1^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ f_8^+ + f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_1^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ - f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ + f_1^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_{10}^+ + f_1^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_{10}^+ - f_1^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ - f_1^- f_3^- f_6^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_1^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ f_{10}^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_{10})(-E_{11}-E_{12}+E_7+E_{10})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,2\}\{7,8|V|5,10\}\{9,10|V|9,12\}\{11,12|V|11,8\}f_9^- f_{11}^-\left(\begin{array}{c}
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- - f_1^- f_2^- f_7^- f_8^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_8^- + f_2^- f_3^- f_4^- f_7^- f_8^- + f_1^- f_2^- f_5^- f_8^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_5+E_7)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_{10}^- + f_2^- f_3^- f_4^- f_7^- f_{10}^- - f_2^- f_3^- f_4^- f_5^- f_{10}^- - f_1^- f_2^- f_7^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_5+E_7)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_{12}^- f_4^+ - f_1^- f_2^- f_7^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_{12}^- - f_2^- f_3^- f_4^- f_5^- f_{12}^- + f_2^- f_3^- f_4^- f_7^- f_{12}^- - f_1^- f_2^- f_3^- f_7^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_5+E_7)(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_1^+ - f_3^- f_4^- f_5^- f_8^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^- f_1^+ - f_3^- f_4^- f_7^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_1^+ - f_3^- f_4^- f_5^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- - f_1^- f_6^- f_7^- f_8^- f_4^+ + f_3^- f_4^- f_6^- f_7^- f_8^- + f_1^- f_5^- f_6^- f_8^- f_4^+ - f_3^- f_4^- f_5^- f_6^- f_8^- - f_1^- f_3^- f_6^- f_7^- f_8^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5+E_7)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{10}^- + f_1^- f_6^- f_7^- f_{10}^- f_4^+ + f_1^- f_3^- f_6^- f_7^- f_{10}^- - f_3^- f_4^- f_6^- f_7^- f_{10}^- - f_1^- f_3^- f_5^- f_6^- f_{10}^- - f_1^- f_5^- f_6^- f_{10}^- f_4^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_{12}^- f_4^+ - f_1^- f_3^- f_6^- f_7^- f_{12}^- - f_1^- f_6^- f_7^- f_{12}^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_{12}^- + f_3^- f_4^- f_6^- f_7^- f_{12}^- - f_3^- f_4^- f_5^- f_6^- f_{12}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5+E_7)(-E_{12}+E_8)(-E_{12}+E_{10})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|9,2\}\{9,10|V|5,8\}\{11,12|V|11,10\}f_{11}^{-}\left(\begin{array}{c}
\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_8^- -f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- -f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+ -f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- +f_1^- f_2^- f_5^- f_7^- f_9^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7-E_8+E_2+E_9)(-E_2-E_5+E_7+E_{10})(-E_2-E_5+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- -f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- +f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ +f_3^- f_4^- f_7^- f_8^- f_{10}^- f_2^+ -f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_2+E_5)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_8^+ -f_1^- f_2^- f_5^- f_9^- f_4^+ f_8^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_8^+ -f_2^- f_3^- f_4^- f_9^- f_{10}^- f_8^+ +f_1^- f_2^- f_3^- f_9^- f_{10}^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{12}^- -f_1^- f_2^- f_3^- f_7^- f_9^- f_{12}^- -f_1^- f_2^- f_7^- f_9^- f_{12}^- f_4^+ -f_3^- f_4^- f_7^- f_8^- f_{12}^- f_2^+ +f_1^- f_2^- f_7^- f_8^- f_{12}^- f_4^+ +f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_{12}+E_2+E_5)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_2^- f_9^- f_{12}^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_9^- f_{12}^- f_8^+ -f_2^- f_3^- f_4^- f_9^- f_{12}^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_9-E_{12}+E_5+E_8)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^+ -f_1^- f_2^- f_5^- f_9^- f_4^+ f_{10}^+ -f_2^- f_3^- f_4^- f_5^- f_8^- f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_{10}^+ +f_1^- f_2^- f_5^- f_8^- f_4^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- f_{12}^+ -f_2^- f_3^- f_4^- f_5^- f_8^- f_{12}^+ +f_1^- f_2^- f_5^- f_8^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_{12}^+ +f_2^- f_3^- f_4^- f_5^- f_9^- f_{12}^+ -f_1^- f_2^- f_5^- f_9^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{12})(-E_5-E_8+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_1^+ -f_3^- f_4^- f_5^- f_7^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_4-E_5+E_1+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ -f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{12}^- f_1^+ -f_1^- f_3^- f_4^- f_7^- f_8^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9-E_{12}+E_5+E_8)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_1^+ f_{10}^+ -f_3^- f_4^- f_5^- f_8^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_1^+ f_{12}^+ -f_3^- f_4^- f_5^- f_9^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_5-E_8+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- +f_1^- f_5^- f_6^- f_7^- f_9^- f_4^+ -f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- +f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- -f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- -f_1^- f_5^- f_6^- f_7^- f_8^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- -f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ -f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- +f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- +f_1^- f_6^- f_7^- f_8^- f_{10}^- f_4^+ -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_4^+ f_8^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+ -f_1^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ -f_1^- f_3^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_9^- f_{12}^- -f_1^- f_3^- f_6^- f_7^- f_8^- f_{12}^- +f_3^- f_4^- f_7^- f_8^- f_{12}^- f_6^+ -f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^- +f_1^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ -f_1^- f_6^- f_7^- f_8^- f_{12}^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+ -f_3^- f_4^- f_6^- f_9^- f_{12}^- f_8^+ +f_1^- f_3^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_9-E_{12}+E_5+E_8)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^+ -f_1^- f_5^- f_6^- f_9^- f_4^+ f_{10}^+ -f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^+ +f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^+ +f_1^- f_5^- f_6^- f_8^- f_4^+ f_{10}^+ -f_3^- f_4^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_4^+ f_{12}^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^+ -f_1^- f_3^- f_5^- f_6^- f_8^- f_{12}^+ -f_1^- f_5^- f_6^- f_8^- f_4^+ f_{12}^+ +f_3^- f_4^- f_5^- f_6^- f_8^- f_{12}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_9-E_{12}+E_5+E_8)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_5^- f_7^- f_8^- f_4^+ f_9^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_9^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_9^+}{(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{10}^- f_9^+ +f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_9^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{12}^- f_9^+ +f_1^- f_7^- f_8^- f_{12}^- f_4^+ f_9^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^-}{(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_7-E_8+E_6+E_9)(-E_9-E_{12}+E_5+E_8)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_5^+ +f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^- -f_1^- f_3^- f_7^- f_8^- f_{10}^- f_5^+ -f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_5^+ +f_1^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_5^+}{(-E_7-E_{10}+E_2+E_5)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{12}^- -f_1^- f_7^- f_8^- f_{12}^- f_4^+ f_5^+ +f_1^- f_7^- f_9^- f_{12}^- f_4^+ f_5^+ -f_3^- f_4^- f_7^- f_9^- f_{12}^- f_5^+ -f_1^- f_3^- f_7^- f_8^- f_{12}^- f_5^+ +f_1^- f_3^- f_7^- f_9^- f_{12}^- f_5^+}{(-E_7-E_{12}+E_2+E_5)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_7-E_{12}+E_5+E_6)(-E_5-E_8+E_9+E_{12})(-E_{12}+E_{10})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,2\}\{7,8|V|5,10\}\{9,10|V|11,8\}\{11,12|V|9,12\}f_{12}^{-}\left(\begin{array}{c}
\frac{+f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- -f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- -f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- -f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- +f_2^- f_3^- f_4^- f_5^- f_8^- f_9^- +f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- -f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- -f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ +f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ +f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- +f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- -f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- -f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- -f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_{10}^- f}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7+E_5)(-E_8+E_{10})(-E_9+E_{11})} \\
+f_3^- f_4^- f_5^- f_8^- f_9^- f_1^+ +f_3^- f_4^- f_7^- f_9^- f_{10}^- f \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- +f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ +f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- -f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- +f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- -f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ +f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- +f_1^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ +f_3^- f_4^- f_5^- f_6^- f_{10}^- f_{11}^- +f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- -f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- -f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- -f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- -f_1^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ -f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- -f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- -f_3^- f_4^- f_6^- f_7^- f_8^- f_9^- +f_1^- f_3^- f_5^- f_6^- f_9^- f}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7+E_5)(-E_8+E_{10})(-E_9+E_{11})}
\end{array}\right.$$

$$
-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|9,8\}\{9,10|V|11,2\}\{11,12|V|5,10\}f_8^-
\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- +f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_2^- f_5^- f_7^- f_{11}^- f_4^+ +f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- -f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- +f_3^- f_4^- f_7^- f_{10}^- f_{12}^- f_2^+ +f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- -f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- -f_1^- f_2^- f_7^- f_{10}^- f_{12}^- f_4^+ -f_2^- f_3^- f_4^- f_5^- f_7^- f_{10}^- +f_1^- f_2^- f_5^- f_7^- f_{10}^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_2-E_5+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- -f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ +f_1^- f_2^- f_9^- f_{10}^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- +f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- -f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^- -f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- +f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- -f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_2^+ +f_1^- f_2^- f_5^- f_9^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- -f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9+E_7)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_5+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_{11}^- f_{12}^- f_{10}^+ -f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_{10}^+ -f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_{10}^+ -f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_{11}+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^+ +f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_{12}^+ -f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^+ -f_1^- f_2^- f_5^- f_{10}^- f_4^+ f_{12}^+ +f_2^- f_3^- f_4^- f_5^- f_{10}^- f_{12}^+ -f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{12})(-E_2-E_5+E_9+E_{12})(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{11}^- f_1^+ -f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_1^+ +f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{12}^- -f_3^- f_4^- f_5^- f_7^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_9)(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_3-E_4-E_5+E_1+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_1^+ +f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_1^+ -f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- -f_3^- f_4^- f_5^- f_9^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_7)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_5+E_1+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_1^+ f_{10}^+ -f_3^- f_4^- f_5^- f_{11}^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_1^+ f_{12}^+ -f_3^- f_4^- f_5^- f_{10}^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_3-E_4-E_5+E_1+E_9+E_{12})(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_{11}^- +f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{12}^- -f_1^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ +f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^- +f_1^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ -f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- -f_1^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- +f_3^- f_4^- f_5^- f_6^- f_7^- f_{10}^- +f_1^- f_6^- f_7^- f_{10}^- f_{12}^- f_4^+ -f_3^- f_4^- f_7^- f_{10}^- f_{12}^- f_6^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_{10}^- -f_1^- f_5^- f_6^- f_7^- f_{10}^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7+E_9)(-E_6-E_{11}+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{11}^- -f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- +f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- -f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ -f_1^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- +f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- +f_1^- f_5^- f_6^- f_9^- f_{11}^- f_4^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^- +f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^- +f_1^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9+E_7)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_{12}^- f_{10}^+ -f_1^- f_6^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ -f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{10}^+ -f_1^- f_3^- f_6^- f_{11}^- f_{12}^- f_{10}^+ +f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{10}^+ +f_1^- f_5^- f_6^- f_{11}^- f_4^+ f_{10}^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6-E_{11}+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{12}^+ -f_1^- f_5^- f_6^- f_{11}^- f_4^+ f_{12}^+ +f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{12}^+ -f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^+ +f_1^- f_5^- f_6^- f_{10}^- f_4^+ f_{12}^+ -f_3^- f_4^- f_5^- f_6^- f_{10}^- f_{12}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_6+E_9+E_{12})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_{10}^- f_{12}^- f_{11}^+ +f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^+ -f_1^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^+ -f_1^- f_5^- f_7^- f_{10}^- f_4^+ f_{11}^+ +f_1^- f_7^- f_{10}^- f_{12}^- f_4^+ f_{11}^+ -f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^-}{(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_7-E_{10}+E_6+E_{11})(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+ +f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_{11}^+ -f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_{11}^+ -f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_{11}^+ +f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_{12}^- -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_9+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_7^- f_{11}^- f_{12}^- f_4^+ f_5^+ -f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_5^+ -f_1^- f_3^- f_7^- f_{10}^- f_{12}^- f_5^+ -f_1^- f_7^- f_{10}^- f_{12}^- f_4^+ f_5^+ +f_1^- f_3^- f_7^- f_{11}^- f_{12}^- f_5^+ +f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{12}^-}{(-E_7+E_9)(-E_7-E_{12}+E_2+E_5)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_5^+ +f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_5^+ -f_1^- f_9^- f_{11}^- f_{12}^- f_4^+ f_5^+ -f_1^- f_3^- f_9^- f_{11}^- f_{12}^- f_5^+ -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- +f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_5^+}{(-E_9+E_7)(-E_9-E_{12}+E_2+E_5)(-E_1-E_9-E_{12}+E_3+E_4+E_5)(-E_9-E_{12}+E_5+E_6)(-E_5-E_{10}+E_{11}+E_{12})}
\end{array}\right)
$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|9,2\}\{9,10|V|5,12\}\{11,12|V|11,8\}f_{11}^{-}\begin{pmatrix}
\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_2^+ - f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- + f_2^- f_3^- f_4^- f_5^- f_7^- f_8^- - f_1^- f_2^- f_3^- f_5^- f_7^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_2+E_5)(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- - f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- - f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- + f_1^- f_2^- f_5^- f_7^- f_9^- f_4^+ - f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_2+E_5)(-E_2-E_9+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- f_8^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_8^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_8^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_8^+ + f_1^- f_2^- f_5^- f_9^- f_4^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_5+E_8)(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_8^- f_4^+ f_{10}^+ - f_2^- f_3^- f_4^- f_5^- f_8^- f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_8^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_5-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{12}^- f_2^+ - f_1^- f_2^- f_7^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{12}^- - f_2^- f_3^- f_4^- f_5^- f_7^- f_{12}^- + f_1^- f_2^- f_5^- f_7^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7-E_{10}+E_2+E_5)(-E_{12}+E_8)(-E_7-E_{12}+E_2+E_9)} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_{12}^- f_{10}^+ - f_1^- f_2^- f_5^- f_{12}^- f_4^+ f_{10}^+ - f_1^- f_2^- f_3^- f_5^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_{12}+E_8)(-E_5-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_4^+ f_{12}^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{12}^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{12}^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^+ + f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_{12}+E_8)(-E_2-E_9+E_7+E_{12})(-E_5-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_1^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ - f_3^- f_4^- f_5^- f_7^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_3-E_4-E_9+E_1+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_1^+ f_8^+ - f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_5-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_5-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{12}^- - f_3^- f_4^- f_5^- f_7^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_{12}+E_8)(-E_1-E_7-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_{12}^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_{12}+E_8)(-E_5-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_1^+ f_{12}^+ - f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_{12}+E_8)(-E_3-E_4-E_9+E_1+E_7+E_{12})(-E_5-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_5^- f_6^- f_7^- f_8^- f_4^+ - f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- + f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- - f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- + f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+ - f_1^- f_6^- f_7^- f_8^- f_{10}^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- - f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- + f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- + f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- - f_1^- f_5^- f_6^- f_7^- f_9^- f_4^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_6-E_9+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+ - f_1^- f_5^- f_6^- f_9^- f_4^+ f_8^+ + f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ + f_1^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ - f_1^- f_3^- f_5^- f_6^- f_9^- f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_5+E_8)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_{10}^+ - f_1^- f_5^- f_6^- f_8^- f_4^+ f_{10}^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^+ + f_1^- f_5^- f_6^- f_9^- f_4^+ f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{12}^- - f_3^- f_4^- f_7^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_5^- f_6^- f_7^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_7^- f_{12}^- + f_3^- f_4^- f_5^- f_6^- f_7^- f_{12}^- + f_1^- f_6^- f_7^- f_{10}^- f_{12}^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_6+E_9)} \\
\frac{+f_1^- f_5^- f_6^- f_{12}^- f_4^+ f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_{12}^- f_{10}^+ + f_1^- f_3^- f_5^- f_6^- f_{12}^- f_{10}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_{12}+E_8)(-E_5-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_4^+ f_{12}^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^+ - f_1^- f_6^- f_9^- f_{10}^- f_4^+ f_{12}^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^+ - f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^+ + f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_{12}+E_8)(-E_6-E_9+E_7+E_{12})(-E_5-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_7^- f_8^- f_9^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_9^+ - f_1^- f_3^- f_7^- f_8^- f_{10}^- f_9^+ - f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_9^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- + f_1^- f_5^- f_7^- f_8^- f_4^+ f_9^+}{(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^- - f_1^- f_3^- f_7^- f_8^- f_{10}^- f_5^+ - f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_5^+}{(-E_7-E_{10}+E_2+E_5)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_7-E_{10}+E_5+E_6)(-E_5-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ + f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_5^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_5^+}{(-E_7-E_{10}+E_2+E_5)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{12}^- - f_1^- f_7^- f_{10}^- f_{12}^- f_4^+ f_5^+ - f_1^- f_3^- f_7^- f_{10}^- f_{12}^- f_5^+}{(-E_7-E_{10}+E_2+E_5)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_7-E_{10}+E_5+E_6)(-E_{12}+E_8)(-E_5-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_7^- f_{12}^- f_9^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- - f_1^- f_7^- f_{10}^- f_{12}^- f_4^+ f_9^+ + f_1^- f_5^- f_7^- f_{12}^- f_4^+ f_9^+ - f_1^- f_3^- f_7^- f_{10}^- f_{12}^- f_9^+ - f_3^- f_4^- f_5^- f_7^- f_{12}^- f_9^+}{(-E_{12}+E_8)(-E_7-E_{12}+E_2+E_9)(-E_1-E_7-E_{12}+E_3+E_4+E_9)(-E_7-E_{12}+E_6+E_9)(-E_5-E_{12}+E_9+E_{10})}
\end{pmatrix}$$

$$
-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|9,12\}\{9,10|V|11,2\}\{11,12|V|5,8\}
\left(\begin{array}{r}
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+ f_7^+ - f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ f_7^+ - f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_7^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{12}^- f_7^+ + f_1^- f_2^- f_5^- f_9^- f_{12}^- f_4^+ f_7^+ - f_3^- f_4^- f_5^- f_9^- f_{12}^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_5-E_9+E_7+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_7^+ - f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_2^+ f_7^+ + f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_7^+ - f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+ f_7^+ - f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_7^+ + f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_7-E_{11}+E_5+E_9)(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_2^+ - f_1^- f_2^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- + f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- + f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7-E_{10}+E_2+E_5)(-E_9-E_{10}+E_2+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{10}^- - f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- f_2^+ + f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_2^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- - f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_2-E_5-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_2^+ - f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- - f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{11}^- f_2^+ + f_1^- f_2^- f_3^- f_5^- f_8^- f_{10}^- f_{11}^- + f_1^- f_2^- f_5^- f_8^- f_{10}^- f_{11}^- f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ + f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- + f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_2^+ - f_1^- f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_{10}+E_2+E_5)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_2^+ f_7^+ f_{12}^+ - f_1^- f_2^- f_3^- f_5^- f_8^- f_7^+ f_{12}^+ - f_1^- f_2^- f_5^- f_8^- f_4^+ f_7^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_2^+ f_{12}^+ + f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_{10}+E_2+E_5)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_8^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_5^- f_8^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_5^- f_8^- f_{10}^- f_2^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_2-E_5-E_8+E_9+E_{10}+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+ - f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_9^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_9^+ + f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_2^+ f_9^+ + f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_{11}+E_5+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_2^+ f_9^+ - f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_9^+ + f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_9^+ - f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ f_9^+ + f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_5-E_9+E_7+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_2^+ f_8^+ - f_1^- f_2^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_2+E_5+E_8)} \\
\frac{+f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_8^+ f_9^+ + f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_8^+ f_9^+ - f_3^- f_4^- f_{11}^- f_{12}^- f_2^+ f_8^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_1^- f_2^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_2^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_8)(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_2^+ f_9^+ f_{12}^+ - f_1^- f_2^- f_5^- f_8^- f_4^+ f_9^+ f_{12}^+ - f_1^- f_2^- f_3^- f_5^- f_8^- f_9^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_9-E_{12}+E_7+E_8)(-E_2-E_5-E_8+E_9+E_{10}+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_7^+ f_8^+ + f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_7^+ f_8^+ - f_3^- f_4^- f_{11}^- f_{12}^- f_2^+ f_7^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_5+E_8)(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_7^+ - f_1^- f_3^- f_4^- f_5^- f_9^- f_{12}^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_5-E_9+E_7+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_7^+ - f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_7-E_{11}+E_5+E_9)(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- - f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- - f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_5-E_8+E_1+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4-E_{11}-E_{12}+E_1+E_7+E_8+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_7^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_7-E_8+E_9+E_{12})(-E_1-E_7-E_8-E_{10}+E_3+E_4+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_4-E_5-E_8+E_1+E_9+E_{10}+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_{11}+E_5+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_9+E_7+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_1-E_9-E_{10}-E_{12}+E_3+E_4+E_5+E_8)} \\
\frac{+f_1^- f_3^- f_4^- f_{11}^- f_{12}^- f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_8)(-E_3-E_4-E_{11}-E_{12}+E_1+E_7+E_8+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_9^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9-E_{12}+E_7+E_8)(-E_3-E_4-E_5-E_8+E_1+E_9+E_{10}+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{11}^- f_{12}^- f_7^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_5+E_8)(-E_3-E_4-E_{11}-E_{12}+E_1+E_7+E_8+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{12}^- f_6^+ f_7^+ - f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- f_7^+ - f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_7^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_6^+ f_7^+ + f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_7^+ + f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ f_7^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_5-E_9+E_7+E_{11})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_7^+ + f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_7^+ - f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_6^+ f_7^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_7^+ + f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+ f_7^+ - f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_7^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_7-E_{11}+E_5+E_9)(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- - f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ + f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{10}^- + f_1^- f_6^- f_7^- f_8^- f_9^- f_{10}^- f_4^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- f_6^+ - f_1^- f_5^- f_6^- f_8^- f_9^- f_{10}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_4^+ + f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^- - f_1^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^- f_4^+ - f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_6^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{11}^- - f_1^- f_6^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_{10}+E_5+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_8-E_{10}+E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_7^+ f_{12}^+ + f_1^- f_5^- f_6^- f_8^- f_4^+ f_7^+ f_{12}^+ - f_3^- f_4^- f_5^- f_8^- f_6^+ f_7^+ f_{12}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+ + f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^+ + f_1^- f_5^- f_6^- f_8^- f_{10}^- f_4^+ f_{12}^+ - f_3^- f_4^- f_5^- f_8^- f_{10}^- f_6^+ f_{12}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+ + f_1^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+ - f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ + f_1^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ f_9^+ - f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ f_9^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_{11}+E_5+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+ f_9^+ - f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_6^+ f_9^+ + f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_9^+ + f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_9^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_9^+ - f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_9^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_9+E_7+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+ + f_1^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)} \\
\frac{+f_1^- f_3^- f_6^- f_{11}^- f_{12}^- f_8^+ f_9^+ - f_3^- f_4^- f_{11}^- f_{12}^- f_6^+ f_8^+ f_9^+ + f_1^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+ f_9^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_6^+ f_8^+ - f_1^- f_3^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_1^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_8)(-E_6-E_{11}-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_9^+ f_{12}^+ + f_1^- f_5^- f_6^- f_8^- f_4^+ f_9^+ f_{12}^+ - f_3^- f_4^- f_5^- f_8^- f_6^+ f_9^+ f_{12}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9-E_{12}+E_7+E_8)(-E_5-E_6-E_8+E_9+E_{10}+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_6^+ f_7^+ f_8^+ - f_1^- f_6^- f_{11}^- f_{12}^- f_4^+ f_7^+ f_8^+ - f_1^- f_3^- f_6^- f_{11}^- f_{12}^- f_7^+ f_8^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_5+E_8)(-E_6-E_{11}-E_{12}+E_7+E_8+E_{10})}
\end{array}\right)
$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|1,6\}\{7,8|V|7,10\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_6^- f_7^- f_9^- f_{11}^- \begin{pmatrix} \frac{+f_1^- f_2^- f_4^+ + f_1^- f_2^- f_3^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_2+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_2^- f_3^- f_4^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_2^- f_3^- f_5^- + f_2^- f_5^- f_4^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_2+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_5^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\ \frac{+f_1^- f_8^- f_4^+ + f_1^- f_3^- f_8^-}{(-E_1+E_5)(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_{10})(-E_8+E_{12})} \\ \frac{+f_3^- f_5^- f_8^- + f_5^- f_8^- f_4^+}{(-E_5+E_1)(-E_8+E_2)(-E_5-E_8+E_3+E_4)(-E_8+E_{10})(-E_8+E_{12})} \\ \frac{+f_1^- f_3^- f_{10}^- + f_1^- f_{10}^- f_4^+}{(-E_1+E_5)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_{10}+E_8)(-E_{10}+E_{12})} \\ \frac{+f_3^- f_5^- f_{10}^- + f_5^- f_{10}^- f_4^+}{(-E_5+E_1)(-E_{10}+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_8)(-E_{10}+E_{12})} \\ \frac{+f_1^- f_3^- f_{12}^- + f_1^- f_{12}^- f_4^+}{(-E_1+E_5)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_{12}+E_{10})} \\ \frac{+f_5^- f_{12}^- f_4^+ + f_3^- f_5^- f_{12}^-}{(-E_5+E_1)(-E_{12}+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_{12}+E_{10})} \\ \frac{+f_3^- f_4^- f_8^-}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_5+E_8)(-E_8+E_{10})(-E_8+E_{12})} \\ \frac{+f_3^- f_4^- f_{10}^-}{(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_5+E_{10})(-E_{10}+E_8)(-E_{10}+E_{12})} \\ \frac{+f_3^- f_4^- f_{12}^-}{(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_5+E_{12})(-E_{12}+E_8)(-E_{12}+E_{10})} \end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|1,6\}\{7,8|V|9,12\}\{9,10|V|7,10\}\{11,12|V|11,2\}f_6^- f_{10}^- f_{11}^- \begin{pmatrix} \frac{+f_1^- f_2^- f_7^- f_4^+ - f_1^- f_2^- f_3^- f_9^- - f_1^- f_2^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_7^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_2+E_8)(-E_7+E_9)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_1^+ - f_3^- f_4^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_3-E_4+E_1+E_8)(-E_7+E_9)(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_2^- f_3^- f_4^- f_7^- - f_2^- f_3^- f_4^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2+E_8)(-E_7+E_9)(-E_2+E_{12})} \\ \frac{+f_2^- f_3^- f_5^- f_9^- + f_2^- f_5^- f_9^- f_4^+ - f_2^- f_5^- f_7^- f_4^+ - f_2^- f_3^- f_5^- f_7^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_2+E_8)(-E_9+E_7)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_5^+ - f_3^- f_4^- f_9^- f_5^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_5+E_8)(-E_7+E_9)(-E_3-E_4+E_5+E_{12})} \\ \frac{+f_1^- f_3^- f_8^- f_9^- + f_1^- f_8^- f_9^- f_4^+ - f_1^- f_3^- f_7^- f_8^- - f_1^- f_7^- f_8^- f_4^+}{(-E_1+E_5)(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_9+E_7)(-E_8+E_{12})} \\ \frac{+f_3^- f_5^- f_7^- f_8^- - f_5^- f_8^- f_9^- f_4^+ + f_5^- f_7^- f_8^- f_4^+ - f_3^- f_5^- f_8^- f_9^-}{(-E_5+E_1)(-E_8+E_2)(-E_5-E_8+E_3+E_4)(-E_7+E_9)(-E_8+E_{12})} \\ \frac{+f_1^- f_3^- f_9^- f_{12}^- + f_1^- f_9^- f_{12}^- f_4^+ - f_1^- f_3^- f_7^- f_{12}^- - f_1^- f_7^- f_{12}^- f_4^+}{(-E_1+E_5)(-E_9+E_7)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_{12}+E_8)} \\ \frac{+f_5^- f_7^- f_{12}^- f_4^+ - f_5^- f_9^- f_{12}^- f_4^+ + f_3^- f_5^- f_7^- f_{12}^- - f_3^- f_5^- f_9^- f_{12}^-}{(-E_5+E_1)(-E_7+E_9)(-E_{12}+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)} \\ \frac{+f_3^- f_4^- f_7^- f_8^- - f_3^- f_4^- f_8^- f_9^-}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_5+E_8)(-E_7+E_9)(-E_8+E_{12})} \\ \frac{+f_3^- f_4^- f_9^- f_{12}^- - f_3^- f_4^- f_7^- f_{12}^-}{(-E_9+E_7)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_5+E_{12})(-E_{12}+E_8)} \end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|1,6\}\{7,8|V|7,10\}\{9,10|V|11,2\}\{11,12|V|9,12\}f_6^- f_7^- f_{12}^- \begin{pmatrix} \frac{+f_1^- f_2^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_9^- + f_1^- f_2^- f_3^- f_{11}^- - f_1^- f_2^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_2+E_8)(-E_2+E_{10})(-E_{11}+E_9)} \\ \frac{+f_3^- f_4^- f_9^- f_1^+ - f_3^- f_4^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_1+E_{10})(-E_9+E_{11})} \\ \frac{+f_2^- f_3^- f_4^- f_{11}^- - f_2^- f_3^- f_4^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2+E_8)(-E_2+E_{10})(-E_{11}+E_9)} \\ \frac{+f_2^- f_5^- f_{11}^- f_4^+ + f_2^- f_3^- f_5^- f_{11}^- - f_2^- f_3^- f_5^- f_9^- - f_2^- f_5^- f_9^- f_4^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_2+E_8)(-E_2+E_{10})(-E_{11}+E_9)} \\ \frac{+f_3^- f_4^- f_9^- f_5^+ - f_3^- f_4^- f_{11}^- f_5^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_9+E_{11})} \\ \frac{+f_1^- f_3^- f_8^- f_{11}^- - f_1^- f_8^- f_9^- f_4^+ + f_1^- f_8^- f_{11}^- f_4^+ - f_1^- f_3^- f_8^- f_9^-}{(-E_1+E_5)(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_{10})(-E_{11}+E_9)} \\ \frac{+f_3^- f_5^- f_8^- f_{11}^- - f_3^- f_5^- f_8^- f_9^- - f_5^- f_8^- f_9^- f_4^+ + f_5^- f_8^- f_{11}^- f_4^+}{(-E_5+E_1)(-E_8+E_2)(-E_5-E_8+E_3+E_4)(-E_8+E_{10})(-E_{11}+E_9)} \\ \frac{+f_1^- f_3^- f_9^- f_{10}^- - f_1^- f_3^- f_{10}^- f_{11}^- - f_1^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_9^- f_{10}^- f_4^+}{(-E_1+E_5)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_{10}+E_8)(-E_9+E_{11})} \\ \frac{+f_5^- f_9^- f_{10}^- f_4^+ - f_5^- f_{10}^- f_{11}^- f_4^+ + f_3^- f_5^- f_9^- f_{10}^- - f_3^- f_5^- f_{10}^- f_{11}^-}{(-E_5+E_1)(-E_{10}+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_8)(-E_9+E_{11})} \\ \frac{+f_3^- f_4^- f_8^- f_{11}^- - f_3^- f_4^- f_8^- f_9^-}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_5+E_8)(-E_8+E_{10})(-E_{11}+E_9)} \\ \frac{+f_3^- f_4^- f_9^- f_{10}^- - f_3^- f_4^- f_{10}^- f_{11}^-}{(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_5+E_{10})(-E_{10}+E_8)(-E_9+E_{11})} \end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|1,6\}\{7,8|V|9,2\}\{9,10|V|11,10\}\{11,12|V|7,12\}f_6^-f_{10}^-f_{12}^-\begin{pmatrix}
\frac{+f_1^-f_2^-f_3^-f_7^-+f_1^-f_2^-f_7^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_2+E_8)(-E_7+E_9)(-E_7+E_{11})}\\
\frac{+f_1^-f_2^-f_3^-f_9^-+f_1^-f_2^-f_9^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_2+E_8)(-E_9+E_7)(-E_9+E_{11})}\\
\frac{+f_1^-f_2^-f_3^-f_{11}^-+f_1^-f_2^-f_{11}^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_2+E_8)(-E_{11}+E_7)(-E_{11}+E_9)}\\
\frac{+f_1^-f_3^-f_4^-f_7^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_3-E_4+E_1+E_8)(-E_7+E_9)(-E_7+E_{11})}\\
\frac{+f_1^-f_3^-f_4^-f_9^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_3-E_4+E_1+E_8)(-E_9+E_7)(-E_9+E_{11})}\\
\frac{+f_1^-f_3^-f_4^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_3-E_4+E_1+E_8)(-E_{11}+E_7)(-E_{11}+E_9)}\\
\frac{+f_3^-f_4^-f_7^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2+E_8)(-E_7+E_9)(-E_7+E_{11})}\\
\frac{+f_3^-f_4^-f_9^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2+E_8)(-E_9+E_7)(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_{11}^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2+E_8)(-E_{11}+E_7)(-E_{11}+E_9)}\\
\frac{+f_2^-f_5^-f_7^-f_4^++f_2^-f_3^-f_5^-f_7^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_2+E_8)(-E_7+E_9)(-E_7+E_{11})}\\
\frac{+f_2^-f_5^-f_9^-f_4^++f_2^-f_3^-f_5^-f_9^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_2+E_8)(-E_9+E_7)(-E_9+E_{11})}\\
\frac{+f_2^-f_5^-f_{11}^-f_4^++f_2^-f_3^-f_5^-f_{11}^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_2+E_8)(-E_{11}+E_7)(-E_{11}+E_9)}\\
\frac{+f_3^-f_4^-f_5^-f_7^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_5+E_8)(-E_7+E_9)(-E_7+E_{11})}\\
\frac{+f_3^-f_4^-f_5^-f_9^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_5+E_8)(-E_9+E_7)(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_5^-f_{11}^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_5+E_8)(-E_{11}+E_7)(-E_{11}+E_9)}\\
\frac{+f_1^-f_7^-f_8^-f_4^++f_1^-f_3^-f_7^-f_8^-}{(-E_1+E_5)(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_7+E_9)(-E_7+E_{11})}\\
\frac{+f_1^-f_8^-f_9^-f_4^++f_1^-f_3^-f_8^-f_9^-}{(-E_1+E_5)(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_9+E_7)(-E_9+E_{11})}\\
\frac{+f_1^-f_3^-f_8^-f_{11}^-+f_1^-f_8^-f_{11}^-f_4^+}{(-E_1+E_5)(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_{11}+E_7)(-E_{11}+E_9)}\\
\frac{+f_5^-f_7^-f_8^-f_4^++f_3^-f_5^-f_7^-f_8^-}{(-E_5+E_1)(-E_8+E_2)(-E_5-E_8+E_3+E_4)(-E_7+E_9)(-E_7+E_{11})}\\
\frac{+f_5^-f_8^-f_9^-f_4^++f_3^-f_5^-f_8^-f_9^-}{(-E_5+E_1)(-E_8+E_2)(-E_5-E_8+E_3+E_4)(-E_9+E_7)(-E_9+E_{11})}\\
\frac{+f_5^-f_8^-f_{11}^-f_4^++f_3^-f_5^-f_8^-f_{11}^-}{(-E_5+E_1)(-E_8+E_2)(-E_5-E_8+E_3+E_4)(-E_{11}+E_7)(-E_{11}+E_9)}\\
\frac{+f_3^-f_4^-f_7^-f_8^+}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_5+E_8)(-E_7+E_9)(-E_7+E_{11})}\\
\frac{+f_3^-f_4^-f_9^-f_8^+}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_5+E_8)(-E_9+E_7)(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_{11}^-f_8^+}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_5+E_8)(-E_{11}+E_7)(-E_{11}+E_9)}
\end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|1,6\}\{7,8|V|9,2\}\{9,10|V|7,12\}\{11,12|V|11,10\}f_6^-f_{11}^-\begin{pmatrix}
\frac{+f_1^-f_2^-f_9^-f_{10}^-f_4^+-f_1^-f_2^-f_7^-f_{10}^-f_4^++f_1^-f_2^-f_3^-f_9^-f_{10}^-+f_1^-f_2^-f_3^-f_7^-f_{12}^-+f_1^-f_2^-f_7^-f_{12}^-f_4^+-f_1^-f_2^-f_3^-f_9^-f_{12}^--f_1^-f_2^-f_9^-f_{12}^-f_4^+-f_1^-f_2^-f_3^-f_7^-f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_2+E_8)(-E_9+E_7)(-E_{10}+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_7^-f_{10}^--f_1^-f_3^-f_4^-f_9^-f_{10}^-+f_1^-f_3^-f_4^-f_9^-f_{12}^--f_1^-f_3^-f_4^-f_7^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_3-E_4+E_1+E_8)(-E_7+E_9)(-E_{10}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{10}^-f_2^+-f_3^-f_4^-f_9^-f_{10}^-f_2^++f_3^-f_4^-f_9^-f_{12}^-f_2^+-f_3^-f_4^-f_7^-f_{12}^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2+E_8)(-E_7+E_9)(-E_{10}+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_9^-f_{12}^-+f_2^-f_5^-f_9^-f_{12}^-f_4^+-f_2^-f_3^-f_5^-f_7^-f_{12}^--f_2^-f_5^-f_7^-f_{12}^-f_4^+-f_2^-f_5^-f_9^-f_{10}^-f_4^++f_2^-f_5^-f_7^-f_{10}^-f_4^+-f_2^-f_3^-f_5^-f_9^-f_{10}^-+f_2^-f_3^-f_5^-f_7^-f_{10}^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_2+E_8)(-E_9+E_7)(-E_{12}+E_{10})}\\
\frac{+f_3^-f_4^-f_5^-f_7^-f_{12}^--f_3^-f_4^-f_5^-f_9^-f_{12}^--f_3^-f_4^-f_5^-f_7^-f_{10}^-+f_3^-f_4^-f_5^-f_9^-f_{10}^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_5+E_8)(-E_7+E_9)(-E_{12}+E_{10})}\\
\frac{+f_1^-f_3^-f_8^-f_9^-f_{12}^--f_1^-f_7^-f_8^-f_{12}^-f_4^+-f_1^-f_3^-f_8^-f_9^-f_{10}^-+f_1^-f_3^-f_7^-f_8^-f_{10}^--f_1^-f_3^-f_7^-f_8^-f_{12}^--f_1^-f_8^-f_9^-f_{10}^-f_4^++f_1^-f_7^-f_8^-f_{10}^-f_4^++f_1^-f_8^-f_9^-f_{12}^-f_4^+}{(-E_1+E_5)(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_9+E_7)(-E_{12}+E_{10})}\\
\frac{+f_5^-f_7^-f_8^-f_{12}^-f_4^+-f_5^-f_7^-f_8^-f_{10}^-f_4^+-f_5^-f_8^-f_9^-f_{12}^-f_4^+-f_3^-f_5^-f_8^-f_9^-f_{12}^-+f_3^-f_5^-f_8^-f_9^-f_{10}^-+f_3^-f_5^-f_7^-f_8^-f_{12}^--f_3^-f_5^-f_7^-f_8^-f_{10}^-+f_5^-f_8^-f_9^-f_{10}^-f_4^+}{(-E_5+E_1)(-E_8+E_2)(-E_5-E_8+E_3+E_4)(-E_7+E_9)(-E_{12}+E_{10})}\\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_8^++f_3^-f_4^-f_7^-f_{12}^-f_8^+-f_3^-f_4^-f_7^-f_{10}^-f_8^+-f_3^-f_4^-f_9^-f_{12}^-f_8^+}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_5+E_8)(-E_9+E_7)(-E_{10}+E_{12})}
\end{pmatrix}$$

$$
-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|1,6\}\{7,8|V|9,12\}\{9,10|V|11,2\}\{11,12|V|7,10\}f_6^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_9^+ + f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- + f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- - f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_9^+ - f_1^- f_2^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_2+E_7)} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- - f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_{10}^+ + f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- - f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_2+E_8)(-E_2-E_7+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- + f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- - f_1^- f_3^- f_4^- f_7^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_9-E_{12}+E_3+E_4+E_7)} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- - f_1^- f_3^- f_4^- f_{11}^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{12}^+ - f_1^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_2^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ - f_3^- f_4^- f_7^- f_{11}^- f_2^+ f_9^+ - f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_2+E_7)} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_2^+ f_{10}^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2+E_8)(-E_2-E_7+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- + f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ + f_2^- f_3^- f_5^- f_7^- f_{11}^- f_9^+ - f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- - f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_4^+ - f_2^- f_3^- f_5^- f_9^- f_{11}^- f_{12}^- + f_2^- f_5^- f_7^- f_{11}^- f_4^+ f_9^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_2+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_2+E_7)} \\
\frac{+f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ + f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- - f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ - f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_{10}^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_{10}^- f_4^+ f_{12}^+ + f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{12}^+ - f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+ - f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_2+E_8)(-E_2-E_7+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- + f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- - f_3^- f_4^- f_5^- f_7^- f_{11}^- f_9^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_5+E_8)(-E_5-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_7+E_5+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_{11}+E_5+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_8^- f_9^- f_{11}^- f_{12}^- + f_1^- f_8^- f_9^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+ + f_1^- f_3^- f_7^- f_8^- f_9^- f_{10}^- + f_1^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ - f_1^- f_3^- f_8^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_7^- f_8^- f_{11}^- f_9^+ - f_1^- f_8^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_1+E_5)(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- + f_1^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ - f_1^- f_3^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_1+E_5)(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- + f_1^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+}{(-E_1+E_5)(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ - f_5^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ - f_3^- f_5^- f_7^- f_8^- f_9^- f_{10}^- + f_3^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- - f_5^- f_8^- f_9^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- + f_5^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+}{(-E_5+E_1)(-E_8+E_2)(-E_5-E_8+E_3+E_4)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ - f_3^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ + f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_5+E_1)(-E_8+E_2)(-E_5-E_8+E_3+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ + f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ - f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+}{(-E_5+E_1)(-E_8+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ + f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_{11}^+ - f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_{11}^+}{(-E_1+E_5)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_{11}^+ - f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_5^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ + f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+}{(-E_5+E_1)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_9-E_{10}+E_3+E_4+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_7^+ + f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_1^- f_3^- f_9^- f_{11}^- f_{12}^- f_7^+ - f_1^- f_9^- f_{11}^- f_{12}^- f_4^+ f_7^+}{(-E_1+E_5)(-E_9-E_{12}+E_2+E_7)(-E_1-E_9-E_{12}+E_3+E_4+E_7)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_9^- f_{11}^- f_{12}^- f_7^+ + f_5^- f_9^- f_{11}^- f_{12}^- f_4^+ f_7^+ - f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_7^+}{(-E_5+E_1)(-E_9-E_{12}+E_2+E_7)(-E_5-E_9-E_{12}+E_3+E_4+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_4^- f_7^- f_{11}^- f_8^+ f_9^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_8^+ - f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_5+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_8^+ - f_3^- f_4^- f_{11}^- f_{12}^- f_8^+ f_{10}^+}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_5+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_4^- f_7^- f_{10}^- f_8^+ f_{12}^+}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_9^+ f_{10}^+ - f_3^- f_4^- f_{11}^- f_{12}^- f_9^+ f_{10}^+}{(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4-E_{11}+E_5+E_9+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_9^+ f_{12}^+ - f_3^- f_4^- f_7^- f_{11}^- f_9^+ f_{12}^+}{(-E_9-E_{12}+E_2+E_7)(-E_3-E_4-E_7+E_1+E_9+E_{12})(-E_3-E_4-E_7+E_5+E_9+E_{12})(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})}
\end{array} \right)
$$

$$-\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,6\}\{7,8|V|1,8\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_6^-f_8^-f_9^-f_{11}^-\begin{pmatrix}
\frac{+f_1^-f_2^-f_4^++f_1^-f_2^-f_3^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_1+E_7)(-E_2+E_{10})(-E_2+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_1+E_7)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_1+E_{12})}\\
\frac{+f_3^-f_4^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_2+E_7)(-E_2+E_{10})(-E_2+E_{12})}\\
\frac{+f_2^-f_5^-f_4^++f_2^-f_3^-f_5^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_5+E_7)(-E_2+E_{10})(-E_2+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^-f_{10}^-f_4^++f_1^-f_3^-f_{10}^-}{(-E_1+E_5)(-E_1+E_7)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_{10}+E_{12})}\\
\frac{+f_1^-f_3^-f_{12}^-+f_1^-f_{12}^-f_4^+}{(-E_1+E_5)(-E_1+E_7)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_{12}+E_{10})}\\
\frac{+f_3^-f_5^-f_{10}^-+f_5^-f_{10}^-f_4^+}{(-E_5+E_1)(-E_5+E_7)(-E_{10}+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_{12})}\\
\frac{+f_5^-f_{12}^-f_4^++f_3^-f_5^-f_{12}^-}{(-E_5+E_1)(-E_5+E_7)(-E_{12}+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_{10})}\\
\frac{+f_2^-f_7^-f_4^++f_2^-f_3^-f_7^-}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_7+E_5)(-E_2+E_{10})(-E_2+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-}{(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_3-E_4+E_7+E_{12})}\\
\frac{+f_3^-f_7^-f_{10}^-+f_7^-f_{10}^-f_4^+}{(-E_7+E_1)(-E_7+E_5)(-E_{10}+E_2)(-E_7-E_{10}+E_3+E_4)(-E_{10}+E_{12})}\\
\frac{+f_3^-f_7^-f_{12}^-+f_7^-f_{12}^-f_4^+}{(-E_7+E_1)(-E_7+E_5)(-E_{12}+E_2)(-E_7-E_{12}+E_3+E_4)(-E_{12}+E_{10})}\\
\frac{+f_3^-f_4^-f_{10}^+}{(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_3^-f_4^-f_{12}^+}{(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{12}+E_{10})}
\end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,6\}\{7,8|V|1,8\}\{9,10|V|11,2\}\{11,12|V|9,12\}f_6^-f_8^-f_{12}^-\begin{pmatrix}
\frac{+f_1^-f_2^-f_9^-f_4^+-f_1^-f_2^-f_3^-f_{11}^--f_1^-f_2^-f_{11}^-f_4^++f_1^-f_2^-f_3^-f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_1+E_7)(-E_2+E_{10})(-E_9+E_{11})}\\
\frac{+f_1^-f_3^-f_4^-f_9^--f_1^-f_3^-f_4^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_1+E_7)(-E_3-E_4+E_1+E_{10})(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_{11}^-f_2^+-f_3^-f_4^-f_9^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_2+E_7)(-E_2+E_{10})(-E_{11}+E_9)}\\
\frac{+f_2^-f_3^-f_5^-f_9^-+f_2^-f_5^-f_9^-f_4^+-f_2^-f_5^-f_{11}^-f_4^+-f_2^-f_3^-f_5^-f_{11}^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_5+E_7)(-E_2+E_{10})(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_5^-f_9^--f_3^-f_4^-f_5^-f_{11}^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_9+E_{11})}\\
\frac{+f_1^-f_9^-f_{10}^-f_4^+-f_1^-f_3^-f_{10}^-f_{11}^-+f_1^-f_3^-f_9^-f_{10}^--f_1^-f_{10}^-f_{11}^-f_4^+}{(-E_1+E_5)(-E_1+E_7)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_9+E_{11})}\\
\frac{+f_3^-f_5^-f_{10}^-f_{11}^-+f_5^-f_{10}^-f_{11}^-f_4^+-f_5^-f_9^-f_{10}^-f_4^+-f_3^-f_5^-f_9^-f_{10}^-}{(-E_5+E_1)(-E_5+E_7)(-E_{10}+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{11}+E_9)}\\
\frac{+f_2^-f_7^-f_{11}^-f_4^+-f_2^-f_3^-f_7^-f_9^-+f_2^-f_3^-f_7^-f_{11}^--f_2^-f_7^-f_9^-f_4^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_7+E_5)(-E_2+E_{10})(-E_{11}+E_9)}\\
\frac{+f_3^-f_4^-f_7^-f_{11}^--f_3^-f_4^-f_7^-f_9^-}{(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_{11}+E_9)}\\
\frac{+f_3^-f_7^-f_9^-f_{10}^-+f_7^-f_9^-f_{10}^-f_4^+-f_7^-f_{10}^-f_{11}^-f_4^+-f_3^-f_7^-f_{10}^-f_{11}^-}{(-E_7+E_1)(-E_7+E_5)(-E_{10}+E_2)(-E_7-E_{10}+E_3+E_4)(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_9^-f_{10}^+-f_3^-f_4^-f_{11}^-f_{10}^+}{(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_9+E_{11})}
\end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,6\}\{7,8|V|9,8\}\{9,10|V|11,2\}\{11,12|V|1,10\}f_6^- f_8^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_{10}^- - f_1^- f_2^- f_5^- f_{11}^- f_4^+ + f_1^- f_2^- f_5^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_5+E_9)(-E_5-E_{10}+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^- f_2^+ - f_2^- f_3^- f_4^- f_5^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_5+E_9)(-E_5-E_{10}+E_2+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{10}^- - f_3^- f_4^- f_5^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_5+E_9)(-E_1-E_5-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_{11}^- f_4^+ - f_1^- f_2^- f_7^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_{11}^- - f_1^- f_2^- f_3^- f_7^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_7+E_9)(-E_2-E_{11}+E_7+E_{10})(-E_1-E_2+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_2^+ - f_2^- f_3^- f_4^- f_7^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_1^+ - f_1^- f_3^- f_4^- f_7^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_7+E_9)(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_9^- f_{11}^- - f_1^- f_2^- f_9^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_9+E_5)(-E_9+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{11}^- - f_3^- f_4^- f_9^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_5)(-E_9+E_7)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- - f_3^- f_4^- f_9^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_5)(-E_9+E_7)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_{11}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_{11}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_{11}+E_5+E_{10})(-E_2-E_{11}+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_{11}+E_5+E_{10})(-E_2-E_{11}+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_1+E_5+E_{10})(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_3^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_{11}^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_1-E_2+E_7+E_{12})(-E_1-E_2+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_{11}^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_3-E_4+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_2^+ f_{12}^+ - f_2^- f_3^- f_4^- f_{11}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_3-E_4+E_9+E_{12})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^- f_{11}^-}{(-E_5+E_7)(-E_5+E_9)(-E_5-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_5^- f_{10}^- f_4^+ f_{11}^+ + f_1^- f_3^- f_5^- f_{10}^- f_{11}^+}{(-E_5+E_7)(-E_5+E_9)(-E_5-E_{10}+E_2+E_{11})(-E_1-E_5-E_{10}+E_3+E_4+E_{11})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_{11}^- f_{12}^- + f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_5^- f_{10}^- f_{12}^- f_2^+ - f_5^- f_{10}^- f_{12}^- f_2^+ f_4^+}{(-E_5+E_7)(-E_5+E_9)(-E_2-E_{11}+E_5+E_{10})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- + f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+}{(-E_5+E_7)(-E_5+E_9)(-E_5-E_{10}+E_2+E_{11})(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_{10}^- f_{12}^- - f_5^- f_{11}^- f_{12}^- f_1^+ f_4^+ - f_3^- f_5^- f_{11}^- f_{12}^- f_1^+ + f_1^- f_5^- f_{10}^- f_{12}^- f_4^+}{(-E_5+E_7)(-E_5+E_9)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^-}{(-E_7+E_5)(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_{10}^- f_{11}^+ + f_1^- f_7^- f_{10}^- f_4^+ f_{11}^+}{(-E_7+E_5)(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_7^- f_{10}^- f_{12}^- f_2^+ f_4^+ + f_3^- f_7^- f_{10}^- f_{12}^- f_2^+ - f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ - f_2^- f_3^- f_7^- f_{11}^- f_{12}^-}{(-E_7+E_5)(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)} \\
\frac{+f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ + f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^-}{(-E_7+E_5)(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_7-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_7^- f_{11}^- f_{12}^- f_1^+ f_4^+ + f_3^- f_7^- f_{11}^- f_{12}^- f_1^+ - f_1^- f_7^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_3^- f_7^- f_{10}^- f_{12}^-}{(-E_7+E_5)(-E_7+E_9)(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{11}^-}{(-E_9+E_5)(-E_9+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_1^- f_9^- f_{10}^- f_4^+ f_{11}^+ + f_1^- f_3^- f_9^- f_{10}^- f_{11}^+}{(-E_9+E_5)(-E_9+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ + f_2^- f_3^- f_9^- f_{11}^- f_{12}^- - f_9^- f_{10}^- f_{12}^- f_2^+ f_4^+ - f_3^- f_9^- f_{10}^- f_{12}^- f_2^+}{(-E_9+E_5)(-E_9+E_7)(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_1+E_2)(-E_9-E_{12}+E_3+E_4)} \\
\frac{+f_3^- f_9^- f_{10}^- f_{11}^- f_{12}^- + f_9^- f_{10}^- f_{11}^- f_{12}^- f_4^+}{(-E_9+E_5)(-E_9+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_9^- f_{11}^- f_{12}^- f_1^+ f_4^+ - f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_3^- f_9^- f_{10}^- f_{12}^- + f_3^- f_9^- f_{11}^- f_{12}^- f_1^+}{(-E_9+E_5)(-E_9+E_7)(-E_9-E_{12}+E_1+E_2)(-E_9-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_2^- f_3^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_{11}^- f_{12}^- f_4^+ f_{10}^+}{(-E_2-E_{11}+E_5+E_{10})(-E_2-E_{11}+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_1+E_{10})(-E_2-E_{11}-E_{12}+E_3+E_4+E_{10})} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^+}{(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_3-E_4+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})}
\end{array} \right)$$

$$-\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,6\}\{7,8|V|9,2\}\{9,10|V|1,8\}\{11,12|V|11,10\}f_6^- f_{11}^- \begin{pmatrix}
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- +f_1^- f_2^- f_5^- f_8^- f_4^+ -f_1^- f_2^- f_9^- f_4^+ f_5^+ -f_1^- f_2^- f_3^- f_9^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_8^- -f_2^- f_3^- f_4^- f_9^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_1^+ -f_3^- f_4^- f_9^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_1-E_5-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_7^+ +f_1^- f_2^- f_9^- f_4^+ f_7^+ -f_1^- f_2^- f_7^- f_8^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_7+E_{10})(-E_1-E_2+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- -f_2^- f_3^- f_4^- f_9^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_7+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_1^+ -f_3^- f_4^- f_9^- f_1^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_7+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- +f_1^- f_2^- f_8^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_1-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_3-E_4-E_8+E_2+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_1-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- -f_1^- f_2^- f_3^- f_8^- f_{10}^+ -f_1^- f_2^- f_8^- f_4^+ f_{10}^+ +f_1^- f_2^- f_9^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_1^+ -f_3^- f_4^- f_8^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- -f_2^- f_3^- f_4^- f_8^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_2-E_9-E_{10}+E_3+E_4+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_8^- f_{12}^+ -f_1^- f_2^- f_3^- f_9^- f_{12}^- -f_1^- f_2^- f_9^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_1-E_2+E_7+E_{12})(-E_1-E_8+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_1^+ -f_3^- f_4^- f_8^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_9-E_{12}+E_1+E_8)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{12}^- -f_2^- f_3^- f_4^- f_8^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_2-E_9-E_{12}+E_3+E_4+E_8)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_8^- f_9^+ +f_1^- f_5^- f_8^- f_4^+ f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_1-E_5-E_8+E_3+E_4+E_9)(-E_1-E_8+E_9+E_{10})(-E_1-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_4^+ -f_2^- f_5^- f_8^- f_{10}^- f_4^+ +f_2^- f_3^- f_5^- f_9^- f_{10}^- -f_2^- f_3^- f_5^- f_8^- f_{10}^-}{(-E_5+E_7)(-E_2-E_9+E_5+E_8)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_8^- f_{10}^- f_9^+ +f_5^- f_8^- f_{10}^- f_4^+ f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{12}^- f_4^+ -f_2^- f_5^- f_8^- f_{12}^- f_4^+ -f_2^- f_3^- f_5^- f_8^- f_{12}^- +f_2^- f_3^- f_5^- f_9^- f_{12}^-}{(-E_5+E_7)(-E_2-E_9+E_5+E_8)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_{10})} \\
\frac{+f_5^- f_8^- f_{12}^- f_4^+ f_9^+ +f_3^- f_5^- f_8^- f_{12}^- f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_{12}+E_3+E_4)(-E_9-E_{12}+E_1+E_8)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_1^- f_7^- f_8^- f_4^+ f_9^+ +f_1^- f_3^- f_7^- f_8^- f_9^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_8+E_9+E_{10})(-E_1-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_4^+ +f_2^- f_3^- f_7^- f_9^- f_{10}^- -f_2^- f_3^- f_7^- f_8^- f_{10}^- -f_2^- f_7^- f_8^- f_{10}^- f_4^+}{(-E_7+E_5)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_{10}+E_{12})} \\
\frac{+f_7^- f_8^- f_{10}^- f_4^+ f_9^+ +f_3^- f_7^- f_8^- f_{10}^- f_9^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{12}^- +f_2^- f_7^- f_8^- f_{12}^- f_4^+ -f_2^- f_7^- f_9^- f_{12}^- f_4^+ -f_2^- f_3^- f_7^- f_9^- f_{12}^-}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)(-E_{12}+E_{10})} \\
\frac{+f_7^- f_8^- f_{12}^- f_4^+ f_9^+ +f_3^- f_7^- f_8^- f_{12}^- f_9^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_{12}+E_3+E_4)(-E_9-E_{12}+E_1+E_8)(-E_{12}+E_{10})} \\
\frac{+f_5^- f_9^- f_{10}^- f_1^+ f_4^+ -f_5^- f_8^- f_{10}^- f_1^+ f_4^+ -f_3^- f_5^- f_8^- f_{10}^- f_1^+ +f_3^- f_5^- f_9^- f_{10}^- f_1^+}{(-E_5+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_{10}+E_{12})} \\
\frac{+f_7^- f_8^- f_{10}^- f_1^+ f_4^+ -f_3^- f_7^- f_9^- f_{10}^- f_1^+ -f_7^- f_9^- f_{10}^- f_1^+ f_4^+ +f_3^- f_7^- f_8^- f_{10}^- f_1^+}{(-E_7+E_5)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_1-E_8+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_9^- f_{12}^- f_1^+ -f_3^- f_5^- f_8^- f_{12}^- f_1^+ -f_5^- f_8^- f_{12}^- f_1^+ f_4^+ +f_5^- f_9^- f_{12}^- f_1^+ f_4^+}{(-E_5+E_7)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_9-E_{12}+E_1+E_8)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_7^- f_9^- f_{12}^- f_1^+ -f_3^- f_7^- f_8^- f_{12}^- f_1^+ -f_7^- f_8^- f_{12}^- f_1^+ f_4^+ +f_7^- f_9^- f_{12}^- f_1^+ f_4^+}{(-E_7+E_5)(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)(-E_9-E_{12}+E_1+E_8)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_8^+ +f_2^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_1+E_8)(-E_2-E_9-E_{10}+E_3+E_4+E_8)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_9^- f_{12}^- f_4^+ f_8^+ +f_2^- f_3^- f_9^- f_{12}^- f_8^+}{(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{12}+E_1+E_8)(-E_2-E_9-E_{12}+E_3+E_4+E_8)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_8^- f_9^+ f_{10}^+}{(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^+ f_{12}^+}{(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_9-E_{12}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{12})(-E_{12}+E_{10})}
\end{pmatrix}$$

$$
-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,6\}\{7,8|V|9,2\}\{9,10|V|11,10\}\{11,12|V|1,8\}f_6^-f_{10}^-
\left(\begin{array}{r}
\frac{+f_1^-f_2^-f_3^-f_5^-f_8^-+f_1^-f_2^-f_5^-f_8^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_8+E_2+E_{11})(-E_1-E_2+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_8^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_8+E_2+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^-f_2^-f_5^-f_9^-f_4^++f_1^-f_2^-f_3^-f_5^-f_9^-}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_2-E_9+E_5+E_8)(-E_9+E_{11})(-E_1-E_2+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_5^-f_9^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_2-E_9+E_5+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_5^-f_8^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_1-E_5-E_8+E_3+E_4+E_9)(-E_1-E_5-E_8+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_9^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^-f_2^-f_7^-f_8^-f_4^++f_1^-f_2^-f_3^-f_7^-f_8^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_1-E_2+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_3-E_4+E_7+E_{12})}\\
\frac{+f_1^-f_2^-f_7^-f_9^-f_4^++f_1^-f_2^-f_3^-f_7^-f_9^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_1-E_2+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_9^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_7+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_7^-f_8^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_7-E_8+E_3+E_4+E_{11})(-E_3-E_4+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_9^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_7+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_5^-f_{11}^-+f_1^-f_2^-f_5^-f_{11}^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_2-E_{11}+E_5+E_8)(-E_{11}+E_9)(-E_1-E_2+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_5^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_2-E_{11}+E_5+E_8)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_{11}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4-E_{11}+E_1+E_5+E_8)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_{11}^-+f_1^-f_2^-f_7^-f_{11}^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_1-E_2+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{11}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_7+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_9^-f_8^++f_1^-f_2^-f_9^-f_4^+f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_1-E_8+E_9+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_9^-f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4-E_8+E_2+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_9^-f_1^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_1-E_8+E_9+E_{12})}\\
\frac{+f_1^-f_2^-f_{11}^-f_4^+f_8^++f_1^-f_2^-f_3^-f_{11}^-f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_{11}+E_5+E_8)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_1-E_8+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_{11}^-f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_{11}+E_5+E_8)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_{11}^-f_1^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_1+E_5+E_8)(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_1-E_8+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_9^-f_{12}^++f_1^-f_2^-f_9^-f_4^+f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_9+E_{11})(-E_1-E_2+E_5+E_{12})(-E_1-E_2+E_7+E_{12})(-E_9-E_{12}+E_1+E_8)}\\
\frac{+f_1^-f_2^-f_3^-f_{11}^-f_{12}^++f_1^-f_2^-f_{11}^-f_4^+f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_{11}+E_9)(-E_1-E_2+E_5+E_{12})(-E_1-E_2+E_7+E_{12})(-E_{11}-E_{12}+E_1+E_8)}\\
\frac{+f_3^-f_4^-f_9^-f_1^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_9-E_{12}+E_1+E_8)}\\
\frac{+f_2^-f_3^-f_4^-f_9^-f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_2-E_9-E_{12}+E_3+E_4+E_8)}\\
\frac{+f_3^-f_4^-f_{11}^-f_1^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{11}-E_{12}+E_1+E_8)}\\
\frac{+f_2^-f_3^-f_4^-f_{11}^-f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_2-E_{11}-E_{12}+E_3+E_4+E_8)}\\
\frac{+f_1^-f_2^-f_8^-f_4^+f_{12}^++f_1^-f_2^-f_3^-f_8^-f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_1-E_2+E_7+E_{12})(-E_1-E_8+E_9+E_{12})(-E_1-E_8+E_{11}+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_8^-f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_1-E_8+E_9+E_{12})(-E_1-E_8+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_8^-f_2^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_3-E_4-E_8+E_2+E_9+E_{12})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_8^-f_9^-}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^-f_3^-f_5^-f_8^-f_9^++f_1^-f_5^-f_8^-f_4^+f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_1-E_5-E_8+E_3+E_4+E_9)(-E_9+E_{11})(-E_1-E_8+E_9+E_{12})}\\
\frac{+f_5^-f_8^-f_{12}^-f_2^+f_4^++f_3^-f_5^-f_8^-f_{12}^-f_2^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_8+E_2+E_{11})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)}\\
\frac{+f_2^-f_3^-f_5^-f_9^-f_{12}^-+f_2^-f_5^-f_9^-f_{12}^-f_4^+}{(-E_5+E_7)(-E_2-E_9+E_5+E_8)(-E_9+E_{11})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)}\\
\frac{+f_5^-f_8^-f_9^-f_{12}^-f_4^++f_3^-f_5^-f_8^-f_9^-f_{12}^-}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_9+E_{11})(-E_5-E_{12}+E_3+E_4)(-E_9-E_{12}+E_1+E_8)}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_9^-}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_7+E_{12})}\\
\frac{+f_1^-f_3^-f_7^-f_8^-f_9^++f_1^-f_7^-f_8^-f_4^+f_9^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_9+E_{11})(-E_1-E_8+E_9+E_{12})}\\
\frac{+f_7^-f_8^-f_{12}^-f_2^+f_4^++f_3^-f_7^-f_8^-f_{12}^-f_2^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)}\\
\frac{+f_2^-f_7^-f_9^-f_{12}^-f_4^++f_2^-f_3^-f_7^-f_9^-f_{12}^-}{(-E_7+E_5)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)}\\
\frac{+f_7^-f_8^-f_9^-f_{12}^-f_4^++f_3^-f_7^-f_8^-f_9^-f_{12}^-}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_9+E_{11})(-E_7-E_{12}+E_3+E_4)(-E_9-E_{12}+E_1+E_8)}\\
\frac{+f_3^-f_4^-f_5^-f_8^-f_{11}^-}{(-E_5+E_7)(-E_5-E_8+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_5+E_8)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^-f_3^-f_5^-f_8^-f_{11}^++f_1^-f_5^-f_8^-f_4^+f_{11}^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_{11})(-E_1-E_5-E_8+E_3+E_4+E_{11})(-E_{11}+E_9)(-E_1-E_8+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_{11}^-f_{12}^-f_4^++f_2^-f_3^-f_5^-f_{11}^-f_{12}^-}{(-E_5+E_7)(-E_2-E_{11}+E_5+E_8)(-E_{11}+E_9)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)}\\
\frac{+f_5^-f_8^-f_{11}^-f_{12}^-f_4^++f_3^-f_5^-f_8^-f_{11}^-f_{12}^-}{(-E_5+E_7)(-E_5-E_8+E_2+E_{11})(-E_{11}+E_9)(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_1+E_8)}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{11}^-}{(-E_7+E_5)(-E_7-E_8+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_7+E_{12})}
\end{array}\right.
$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,6\}\{7,8|V|1,10\}\{9,10|V|11,2\}\{11,12|V|9,8\}f_6^- \left(\begin{array}{c}
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- + f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- - f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_5-E_8+E_1+E_{10})(-E_5-E_8-E_9+E_1+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- - f_1^- f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_5-E_8+E_1+E_{10})(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- - f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_1-E_{10}+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- - f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_1-E_{10}+E_5+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_2-E_5-E_8+E_3+E_4+E_{10})(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ - f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4-E_{10}+E_2+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- - f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- + f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_7-E_8+E_1+E_{10})(-E_7-E_8-E_9+E_1+E_2+E_{11})(-E_1-E_2+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- - f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_7-E_8+E_1+E_{10})(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- - f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_1-E_{10}+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- - f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_1-E_{10}+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_2^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_{11}^- f_9^+ + f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_1-E_2-E_{11}+E_5+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{11}^- f_9^+ + f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_1-E_2-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_8^+ + f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_8^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_5+E_8)(-E_1-E_{10}+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_8^+ - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_5+E_8)(-E_1-E_{10}+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_8^+ - f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_5+E_8)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_{11}^- f_4^+ f_8^+ f_9^+ + f_1^- f_2^- f_3^- f_{11}^- f_8^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_{11}+E_5+E_8+E_9)(-E_1-E_2-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_2^+ f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{11}^- f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_5+E_{12})(-E_1-E_2+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_1^- f_2^- f_3^- f_{11}^- f_9^+ f_{12}^+ + f_1^- f_2^- f_{11}^- f_4^+ f_9^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})(-E_1-E_2+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_3^- f_4^- f_{11}^- f_2^+ f_9^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_1-E_{10}-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_1^- f_3^- f_4^- f_{11}^- f_9^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_{11}^- f_{12}^+ + f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_8^- f_9^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_8^- f_9^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_1-E_2+E_7+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_2^+ f_{12}^+ - f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_{12}^+ - f_1^- f_3^- f_4^- f_8^- f_{11}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_5+E_8)(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_9^- f_4^+ f_{10}^+ - f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{10}^+ - f_2^- f_5^- f_8^- f_{11}^- f_4^+ f_{10}^+ + f_2^- f_3^- f_5^- f_8^- f_9^- f_{10}^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_{10})(-E_2-E_5-E_8+E_3+E_4+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_8^- f_9^- f_{11}^+ + f_1^- f_5^- f_8^- f_9^- f_4^+ f_{11}^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_{10})(-E_5-E_8-E_9+E_1+E_2+E_{11})(-E_5-E_8-E_9+E_3+E_4+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_8^- f_9^- f_4^+ f_{10}^+ f_{11}^+ + f_3^- f_5^- f_8^- f_9^- f_{10}^+ f_{11}^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_{10})(-E_5-E_8-E_9+E_3+E_4+E_{11})(-E_9-E_{10}+E_2+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_{11}^+ + f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_5+E_7)(-E_1-E_{10}+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_1-E_9-E_{10}+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_8^- f_9^- f_{12}^- f_4^+ - f_1^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^- + f_1^- f_3^- f_5^- f_8^- f_9^- f_{12}^-}{(-E_5+E_7)(-E_5-E_8+E_1+E_{10})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- - f_1^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_5+E_7)(-E_1-E_{10}+E_5+E_8)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_5-E_{11}-E_{12}+E_1+E_9+E_{10})} \\
\frac{+f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ + f_3^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_5^- f_8^- f_9^- f_{12}^- f_{10}^+ - f_5^- f_8^- f_9^- f_{12}^- f_4^+ f_{10}^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{10}-E_{12}+E_2+E_8)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ - f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^+ - f_2^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+ + f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{10}^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_{10})(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_1^- f_7^- f_8^- f_9^- f_4^+ f_{11}^+ + f_1^- f_3^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_{10})(-E_7-E_8-E_9+E_1+E_2+E_{11})(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_7^- f_8^- f_9^- f_4^+ f_{10}^+ f_{11}^+ + f_3^- f_7^- f_8^- f_9^- f_{10}^+ f_{11}^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_{10})(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_9-E_{10}+E_2+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ + f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_7+E_5)(-E_1-E_{10}+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_1-E_9-E_{10}+E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- + f_1^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_7^- f_8^- f_9^- f_{12}^- - f_1^- f_7^- f_8^- f_9^- f_{12}^- f_4^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_{10})(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- - f_1^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^-}{(-E_7+E_5)(-E_1-E_{10}+E_7+E_8)(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)(-E_7-E_{11}-E_{12}+E_1+E_9+E_{10})}
\end{array} \right.$$

$$
-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,6\}\{7,8|V|9,2\}\{9,10|V|1,12\}\{11,12|V|11,8\}f_6^- f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_8^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_9^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_2-E_9+E_5+E_8)(-E_1-E_2+E_5+E_{10})(-E_2-E_9+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_2-E_9+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_2-E_9+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_1-E_5-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_1+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_7+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_4^+ f_7^+ + f_1^- f_2^- f_3^- f_9^- f_7^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_7+E_{10})(-E_2-E_9+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_7+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_2-E_9+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_7+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_9+E_1+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_1-E_2+E_5+E_{10})(-E_{12}+E_8)(-E_5-E_{12}+E_2+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_8)(-E_5-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_8)(-E_1-E_5-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_1^- f_2^- f_7^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_1-E_2+E_7+E_{10})(-E_{12}+E_8)(-E_7-E_{12}+E_2+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_{12}+E_8)(-E_7-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_{12}+E_8)(-E_1-E_7-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- + f_1^- f_2^- f_8^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_{10}^+ + f_1^- f_2^- f_8^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_7+E_{10})(-E_1-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- + f_1^- f_2^- f_9^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_9-E_{10}+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_{12}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_{12}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_7+E_{10})(-E_{12}+E_8)(-E_1-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_1-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_9-E_{10}+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_2-E_9-E_{10}+E_3+E_4+E_8)(-E_2-E_9-E_{10}+E_3+E_4+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_{12}+E_8)(-E_1-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_{12}^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_{12}+E_8)(-E_3-E_4-E_{12}+E_2+E_9+E_{10})} \\
\frac{+f_1^- f_2^- f_9^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_9^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_{12}+E_8)(-E_2-E_9+E_5+E_{12})(-E_2-E_9+E_7+E_{12})(-E_1-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_{12}+E_8)(-E_2-E_9+E_5+E_{12})(-E_2-E_9+E_7+E_{12})(-E_3-E_4-E_{12}+E_2+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_{12}+E_8)(-E_3-E_4-E_9+E_1+E_5+E_{12})(-E_3-E_4-E_9+E_1+E_7+E_{12})(-E_1-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_5^- f_8^- f_4^+ f_9^+ + f_1^- f_3^- f_5^- f_8^- f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_1-E_5-E_8+E_3+E_4+E_9)(-E_1-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_5^- f_8^- f_{10}^- f_2^+ + f_5^- f_8^- f_{10}^- f_2^+ f_4^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_8+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_4^+ + f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_5+E_7)(-E_2-E_9+E_5+E_8)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_2-E_9+E_5+E_{12})} \\
\frac{+f_3^- f_5^- f_8^- f_9^- f_{10}^- + f_5^- f_8^- f_9^- f_{10}^- f_4^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^-}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_9^+ + f_1^- f_7^- f_8^- f_4^+ f_9^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_7^- f_8^- f_{10}^- f_2^+ f_4^+ + f_3^- f_7^- f_8^- f_{10}^- f_2^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_8+E_{12})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_4^+ + f_2^- f_3^- f_7^- f_9^- f_{10}^-}{(-E_7+E_5)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_2-E_9+E_7+E_{12})} \\
\frac{+f_7^- f_8^- f_9^- f_{10}^- f_4^+ + f_3^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_8+E_{12})} \\
\frac{+f_1^- f_5^- f_8^- f_{10}^- f_4^+ + f_1^- f_3^- f_5^- f_8^- f_{10}^-}{(-E_5+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_1-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_5^- f_9^- f_{10}^- f_1^+ + f_5^- f_9^- f_{10}^- f_1^+ f_4^+}{(-E_5+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_9-E_{10}+E_1+E_{12})} \\
\frac{+f_3^- f_5^- f_{10}^- f_{12}^- f_2^+ + f_5^- f_{10}^- f_{12}^- f_2^+ f_4^+}{(-E_5+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_8)(-E_5-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_5^- f_{10}^- f_{12}^- f_4^+ + f_1^- f_3^- f_5^- f_{10}^- f_{12}^-}{(-E_5+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_8)(-E_1-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{12}^-}{(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_8)(-E_5-E_{12}+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_{12})}
\end{array} \right)
$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,6\}\{7,8|V|9,2\}\{9,10|V|11,8\}\{11,12|V|1,12\}f_6^- f_{12}^- \begin{pmatrix}
\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- + f_1^- f_2^- f_5^- f_9^- f_4^+ - f_1^- f_2^- f_5^- f_8^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_2-E_9+E_5+E_8)(-E_1-E_2+E_5+E_{10})(-E_1+E_{11})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- - f_2^- f_3^- f_4^- f_5^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_2-E_9+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_2+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_1^+ - f_3^- f_4^- f_5^- f_8^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_1+E_{11})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- + f_1^- f_2^- f_7^- f_8^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_9^- - f_1^- f_2^- f_7^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_7+E_{10})(-E_1+E_{11})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- - f_2^- f_3^- f_4^- f_7^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_7+E_{10})(-E_3-E_4+E_2+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_1^+ - f_3^- f_4^- f_7^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_7+E_{10})(-E_1+E_{11})} \\
\frac{+f_1^- f_2^- f_9^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_9^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_1+E_{11})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_3-E_4+E_2+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_1+E_{11})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^+ + f_1^- f_2^- f_9^- f_4^+ f_{10}^+ - f_1^- f_2^- f_3^- f_8^- f_{10}^+ - f_1^- f_2^- f_8^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_1+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_{10}^+ - f_3^- f_4^- f_8^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_1+E_{11})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^+ - f_2^- f_3^- f_4^- f_8^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_2-E_9-E_{10}+E_3+E_4+E_8)(-E_3-E_4+E_2+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_8+E_{11})} \\
\frac{+f_1^- f_5^- f_8^- f_4^+ f_9^+ + f_1^- f_3^- f_5^- f_8^- f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_1-E_5-E_8+E_3+E_4+E_9)(-E_1-E_8+E_9+E_{10})(-E_1+E_{11})} \\
\frac{+f_2^- f_3^- f_5^- f_8^- f_{10}^- + f_2^- f_5^- f_8^- f_{10}^- f_4^+ - f_2^- f_5^- f_9^- f_{10}^- f_4^+ - f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{10}+E_2+E_{11})} \\
\frac{+f_5^- f_8^- f_{10}^- f_4^+ f_9^+ + f_3^- f_5^- f_8^- f_{10}^- f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_2^- f_3^- f_5^- f_8^- f_{11}^- + f_2^- f_5^- f_8^- f_{11}^- f_4^+ - f_2^- f_3^- f_5^- f_9^- f_{11}^- - f_2^- f_5^- f_9^- f_{11}^- f_4^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_{11}+E_1)(-E_2-E_{11}+E_3+E_4)(-E_2-E_{11}+E_5+E_{10})} \\
\frac{+f_5^- f_8^- f_{11}^- f_4^+ f_9^+ + f_3^- f_5^- f_8^- f_{11}^- f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_{11}+E_1)(-E_5-E_8-E_{11}+E_3+E_4+E_9)(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_9+E_7+E_8+E_{11})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_9^+ + f_1^- f_7^- f_8^- f_4^+ f_9^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_8+E_9+E_{10})(-E_1+E_{11})} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- - f_2^- f_3^- f_7^- f_8^- f_{10}^- + f_2^- f_7^- f_9^- f_{10}^- f_4^+ - f_2^- f_7^- f_8^- f_{10}^- f_4^+}{(-E_7+E_5)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_7-E_{10}+E_2+E_{11})} \\
\frac{+f_7^- f_8^- f_{10}^- f_4^+ f_9^+ + f_3^- f_7^- f_8^- f_{10}^- f_9^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{11}^- - f_2^- f_7^- f_8^- f_{11}^- f_4^+ + f_2^- f_7^- f_9^- f_{11}^- f_4^+ - f_2^- f_3^- f_7^- f_8^- f_{11}^-}{(-E_7+E_5)(-E_2-E_9+E_7+E_8)(-E_{11}+E_1)(-E_2-E_{11}+E_3+E_4)(-E_2-E_{11}+E_7+E_{10})} \\
\frac{+f_7^- f_8^- f_{11}^- f_4^+ f_9^+ + f_3^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_{11}+E_1)(-E_7-E_8-E_{11}+E_3+E_4+E_9)(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_5^- f_9^- f_{10}^- f_1^+ f_4^+ + f_3^- f_5^- f_9^- f_{10}^- f_1^+ - f_3^- f_5^- f_8^- f_{10}^- f_1^+ - f_5^- f_8^- f_{10}^- f_1^+ f_4^+}{(-E_5+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_1+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^+ - f_3^- f_4^- f_5^- f_9^- f_{11}^+}{(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})(-E_5-E_8-E_{11}+E_3+E_4+E_9)} \\
\frac{+f_3^- f_5^- f_9^- f_{10}^- f_{11}^+ - f_5^- f_8^- f_{10}^- f_4^+ f_{11}^+ - f_3^- f_5^- f_8^- f_{10}^- f_{11}^+ + f_5^- f_9^- f_{10}^- f_4^+ f_{11}^+}{(-E_5+E_7)(-E_5-E_{10}+E_3+E_4)(-E_{11}+E_1)(-E_5-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_3^- f_7^- f_9^- f_{10}^- f_1^+ + f_7^- f_9^- f_{10}^- f_1^+ f_4^+ - f_3^- f_7^- f_8^- f_{10}^- f_1^+ - f_7^- f_8^- f_{10}^- f_1^+ f_4^+}{(-E_7+E_5)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_1+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{11}^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^+}{(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})(-E_3-E_4-E_9+E_7+E_8+E_{11})} \\
\frac{+f_3^- f_7^- f_8^- f_{10}^- f_{11}^+ + f_7^- f_8^- f_{10}^- f_4^+ f_{11}^+ - f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ - f_3^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_7+E_5)(-E_7-E_{10}+E_3+E_4)(-E_{11}+E_1)(-E_7-E_{10}+E_2+E_{11})(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_8^+ + f_2^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_1+E_8)(-E_2-E_9-E_{10}+E_3+E_4+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_2^- f_9^- f_{11}^- f_4^+ f_8^+ + f_2^- f_3^- f_9^- f_{11}^- f_8^+}{(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_{11}+E_1)(-E_2-E_{11}+E_3+E_4)(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_8^- f_9^+ f_{10}^+}{(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^+ f_{11}^+ - f_3^- f_4^- f_8^- f_{10}^+ f_{11}^+}{(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_8^+ f_{11}^+}{(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_3-E_4-E_9+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_2^- f_8^- f_{11}^- f_4^+ f_{10}^+ - f_2^- f_9^- f_{11}^- f_4^+ f_{10}^+ - f_2^- f_3^- f_9^- f_{11}^- f_{10}^+ + f_2^- f_3^- f_8^- f_{11}^- f_{10}^+}{(-E_{11}+E_1)(-E_2-E_{11}+E_3+E_4)(-E_2-E_{11}+E_5+E_{10})(-E_2-E_{11}+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})}
\end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,6\}\{7,8|V|9,12\}\{9,10|V|1,8\}\{11,12|V|11,2\}f_6^- f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- +f_1^- f_2^- f_5^- f_8^- f_4^+ -f_1^- f_2^- f_5^- f_9^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_2^+ -f_3^- f_4^- f_5^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- -f_1^- f_3^- f_4^- f_5^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_1-E_5-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- +f_1^- f_2^- f_7^- f_8^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_9^- -f_1^- f_2^- f_7^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_2^+ -f_3^- f_4^- f_7^- f_8^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- -f_1^- f_3^- f_4^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_8^+ +f_1^- f_2^- f_9^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_2^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_4^+ f_{10}^+ +f_1^- f_2^- f_3^- f_8^- f_{10}^+ -f_1^- f_2^- f_3^- f_9^- f_{10}^+ -f_1^- f_2^- f_9^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_7+E_{10})(-E_1-E_8+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^+ -f_1^- f_3^- f_4^- f_8^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_2^+ f_{10}^+ -f_3^- f_4^- f_8^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_2-E_9-E_{10}+E_3+E_4+E_8)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_5^+ f_8^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_5^- f_8^- f_4^+ f_9^+ +f_1^- f_3^- f_5^- f_8^- f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_1-E_5-E_8+E_3+E_4+E_9)(-E_1-E_8+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_5^- f_8^- f_{10}^- f_2^+ +f_5^- f_8^- f_{10}^- f_2^+ f_4^+ -f_5^- f_9^- f_{10}^- f_2^+ f_4^+ -f_3^- f_5^- f_9^- f_{10}^- f_2^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_2+E_{12})} \\
\frac{+f_3^- f_5^- f_9^- f_{10}^- f_8^+ +f_5^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_7^+ f_8^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_9^+ +f_1^- f_7^- f_8^- f_4^+ f_9^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_{10}^- f_2^+ +f_7^- f_8^- f_{10}^- f_2^+ f_4^+ -f_7^- f_9^- f_{10}^- f_2^+ f_4^+ -f_3^- f_7^- f_9^- f_{10}^- f_2^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_2+E_{12})} \\
\frac{+f_3^- f_7^- f_9^- f_{10}^- f_8^+ +f_7^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_5^- f_9^- f_{10}^- f_4^+ +f_1^- f_3^- f_5^- f_9^- f_{10}^- -f_1^- f_5^- f_8^- f_{10}^- f_4^+ -f_1^- f_3^- f_5^- f_8^- f_{10}^-}{(-E_5+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_5-E_{10}+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{12}^+ -f_3^- f_4^- f_5^- f_8^- f_{12}^+}{(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_9-E_{12}+E_5+E_8)} \\
\frac{+f_5^- f_8^- f_{10}^- f_4^+ f_{12}^+ -f_5^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_3^- f_5^- f_8^- f_{10}^- f_{12}^+ -f_3^- f_5^- f_9^- f_{10}^- f_{12}^+}{(-E_5+E_7)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_2)(-E_5-E_8+E_9+E_{12})(-E_5-E_{10}+E_1+E_{12})} \\
\frac{+f_1^- f_7^- f_8^- f_{10}^- f_4^+ -f_1^- f_7^- f_9^- f_{10}^- f_4^+ +f_1^- f_3^- f_7^- f_8^- f_{10}^- -f_1^- f_3^- f_7^- f_9^- f_{10}^-}{(-E_7+E_5)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_1-E_8+E_9+E_{10})(-E_7-E_{10}+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{12}^+ -f_3^- f_4^- f_7^- f_8^- f_{12}^+}{(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_7^- f_9^- f_{10}^- f_{12}^+ +f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ -f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ -f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+}{(-E_7+E_5)(-E_7-E_{10}+E_3+E_4)(-E_{12}+E_2)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_1+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_9^- f_{12}^- -f_1^- f_5^- f_8^- f_{12}^- f_4^+ -f_1^- f_3^- f_5^- f_8^- f_{12}^- +f_1^- f_5^- f_9^- f_{12}^- f_4^+}{(-E_5+E_7)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_8)(-E_1-E_{12}+E_5+E_{10})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{12}^- +f_1^- f_7^- f_8^- f_{12}^- f_4^+ -f_1^- f_3^- f_7^- f_9^- f_{12}^- -f_1^- f_7^- f_9^- f_{12}^- f_4^+}{(-E_7+E_5)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_1-E_{12}+E_7+E_{10})} \\
\frac{+f_2^- f_9^- f_{10}^- f_4^+ f_8^+ +f_2^- f_3^- f_9^- f_{10}^- f_8^+}{(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_1+E_8)(-E_2-E_9-E_{10}+E_3+E_4+E_8)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_8^+}{(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_3-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_{10}^+ f_{12}^+ -f_3^- f_4^- f_9^- f_{10}^+ f_{12}^+}{(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_9^- f_{12}^- f_8^+ +f_1^- f_9^- f_{12}^- f_4^+ f_8^+}{(-E_1-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^- f_8^- f_{12}^- f_4^+ f_{10}^+ +f_1^- f_3^- f_8^- f_{12}^- f_{10}^+ -f_1^- f_3^- f_9^- f_{12}^- f_{10}^+ -f_1^- f_9^- f_{12}^- f_4^+ f_{10}^+}{(-E_1-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_{10})(-E_1-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_9^- f_{10}^- f_{12}^- f_8^+ +f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+}{(-E_9-E_{10}+E_1+E_8)(-E_{12}+E_2)(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_3^- f_4^- f_9^- f_8^+ f_{12}^+}{(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_3-E_4-E_8+E_9+E_{10}+E_{12})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,6\}\{7,8|V|9,12\}\{9,10|V|11,2\}\{11,12|V|1,8\}f_6^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- +f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ -f_1^- f_2^- f_9^- f_{12}^- f_4^+ f_5^+ -f_1^- f_2^- f_3^- f_9^- f_{12}^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_1-E_2+E_5+E_{10})(-E_1-E_9+E_5+E_{11})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- -f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_1-E_2+E_5+E_{10})(-E_5-E_{11}+E_1+E_9)(-E_{11}-E_{12}+E_1+E_8)} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- f_{12}^+ +f_1^- f_2^- f_5^- f_8^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_1-E_2+E_5+E_{10})(-E_5-E_8+E_9+E_{12})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_1^+ -f_3^- f_4^- f_9^- f_{12}^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_1-E_9+E_5+E_{11})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_1^+ -f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_5-E_{11}+E_1+E_9)(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_8^- f_9^- -f_2^- f_3^- f_4^- f_9^- f_{12}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^- -f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_2-E_5-E_{11}+E_3+E_4+E_9)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_5-E_8+E_9+E_{12})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_8^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_5-E_8+E_9+E_{12})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- -f_1^- f_2^- f_3^- f_9^- f_{12}^- f_7^+ -f_1^- f_2^- f_9^- f_{12}^- f_4^+ f_7^+ +f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_1-E_2+E_7+E_{10})(-E_1-E_9+E_7+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- -f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_1-E_2+E_7+E_{10})(-E_7-E_{11}+E_1+E_9)(-E_{11}-E_{12}+E_1+E_8)} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_1-E_2+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_1^+ f_7^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_1-E_9+E_7+E_{11})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_1^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_7-E_{11}+E_1+E_9)(-E_{11}-E_{12}+E_1+E_8)} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- -f_2^- f_3^- f_4^- f_9^- f_{12}^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_9+E_2+E_7+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- -f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_2-E_7-E_{11}+E_3+E_4+E_9)(-E_2-E_{11}-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^+ +f_1^- f_2^- f_8^- f_9^- f_4^+ f_{10}^+ -f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- -f_1^- f_2^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_7+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_{11}^- f_{10}^+ +f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_{10}^+ -f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ -f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_4^+ f_{10}^+ f_{12}^+ +f_1^- f_2^- f_3^- f_8^- f_{10}^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_7+E_{10})(-E_1-E_2-E_8+E_9+E_{10}+E_{12})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_8^- f_9^- f_{10}^+ -f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_8^- f_{11}^- f_{10}^+ -f_2^- f_3^- f_4^- f_{11}^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_1^+ f_{10}^+ -f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_1^+ f_{10}^+ -f_3^- f_4^- f_{11}^- f_{12}^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_1^+ f_{10}^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_8+E_9+E_{10}+E_{12})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_8^- f_{10}^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_8+E_9+E_{10}+E_{12})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- -f_1^- f_2^- f_3^- f_8^- f_9^- f_{11}^+ -f_1^- f_2^- f_8^- f_9^- f_4^+ f_{11}^+ +f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_9+E_5+E_{11})(-E_1-E_9+E_7+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_1+E_8)} \\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_1^+ -f_3^- f_4^- f_8^- f_9^- f_1^+ f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_9+E_5+E_{11})(-E_1-E_9+E_7+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_{11}-E_{12}+E_1+E_8)} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- -f_2^- f_3^- f_4^- f_8^- f_9^- f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_3-E_4-E_9+E_2+E_7+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_{11}-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_1^- f_2^- f_8^- f_9^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_8^- f_9^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_1-E_2-E_8+E_9+E_{10}+E_{12})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_3-E_4-E_8+E_9+E_{10}+E_{12})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_8^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_3-E_4-E_8+E_9+E_{10}+E_{12})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_1^+ f_4^+ +f_3^- f_5^- f_8^- f_9^- f_{10}^- f_1^+ -f_5^- f_9^- f_{10}^- f_{12}^- f_1^+ f_4^+ -f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_1^+}{(-E_5+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_1-E_9+E_5+E_{11})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_1^+ -f_3^- f_5^- f_8^- f_{10}^- f_{11}^- f_1^+ +f_5^- f_{10}^- f_{11}^- f_{12}^- f_1^+ f_4^+ -f_5^- f_8^- f_{10}^- f_{11}^- f_1^+ f_4^+}{(-E_5+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{11}+E_1+E_9)(-E_{11}-E_{12}+E_1+E_8)} \\
\frac{+f_2^- f_3^- f_5^- f_8^- f_9^- f_{10}^- -f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- +f_2^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ -f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_5+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ -f_2^- f_5^- f_8^- f_{10}^- f_{11}^- f_4^+ +f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- -f_2^- f_3^- f_5^- f_8^- f_{10}^- f_{11}^-}{(-E_5+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_{11}-E_{12}+E_5+E_8+E_{10})} \\
\frac{+f_5^- f_8^- f_{10}^- f_1^+ f_4^+ f_{12}^+ +f_3^- f_5^- f_8^- f_{10}^- f_1^+ f_{12}^+}{(-E_5+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_5-E_8+E_9+E_{12})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_8^- f_{10}^- f_{12}^+ +f_2^- f_5^- f_8^- f_{10}^- f_4^+ f_{12}^+}{(-E_5+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_5-E_8+E_9+E_{12})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_5^+ f_{11}^+ -f_3^- f_4^- f_9^- f_{12}^- f_5^+ f_{11}^+}{(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_5-E_{11}+E_1+E_9)(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_{11}^+ -f_3^- f_5^- f_8^- f_9^- f_{10}^- f_{11}^+ -f_5^- f_8^- f_9^- f_{10}^- f_4^+ f_{11}^+ +f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+}{(-E_5+E_7)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{11}+E_1+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_5+E_8)} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^+ f_{12}^+}{(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_5-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_8^- f_{10}^- f_{11}^+ f_{12}^+ +f_5^- f_8^- f_{10}^- f_4^+ f_{11}^+ f_{12}^+}{(-E_5+E_7)(-E_5-E_{10}+E_3+E_4)(-E_5-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_8)(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_7^- f_9^- f_{10}^- f_{12}^- f_1^+ f_4^+ -f_7^- f_8^- f_9^- f_{10}^- f_1^+ f_4^+ +f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_1^+ -f_3^- f_7^- f_8^- f_9^- f_{10}^- f_1^+}{(-E_7+E_5)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_1-E_9+E_7+E_{11})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_7^- f_8^- f_{10}^- f_{11}^- f_1^+ f_4^+ -f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_1^+ +f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_1^+ -f_7^- f_{10}^- f_{11}^- f_{12}^- f_1^+ f_4^+}{(-E_7+E_5)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_7-E_{11}+E_1+E_9)(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ +f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- -f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- -f_2^- f_7^- f_8^- f_9^- f_{10}^- f_4^+}{(-E_7+E_5)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- +f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ -f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- -f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+}{(-E_7+E_5)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_7^- f_8^- f_{10}^- f_1^+ f_4^+ f_{12}^+ +f_3^- f_7^- f_8^- f_{10}^- f_1^+ f_{12}^+}{(-E_7+E_5)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_1-E_8+E_{11}+E_{12})}
\end{array}\right.$$

$$-\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|1,8\}\{7,8|V|7,6\}\{9,10|V|11,2\}\{11,12|V|9,12\}f_7^- f_{12}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_6^- f_{11}^- - f_1^- f_2^- f_6^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_8^- f_9^- - f_1^- f_2^- f_3^- f_6^- f_9^- + f_1^- f_2^- f_8^- f_9^- f_4^+ - f_1^- f_2^- f_8^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_8^- f_{11}^- + f_1^- f_2^- f_6^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_6+E_8)(-E_2+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- - f_1^- f_3^- f_4^- f_8^- f_9^- + f_1^- f_3^- f_4^- f_8^- f_{11}^- - f_1^- f_3^- f_4^- f_6^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_6+E_8)(-E_3-E_4+E_1+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_2^+ - f_3^- f_4^- f_6^- f_{11}^- f_2^+ - f_3^- f_4^- f_8^- f_9^- f_2^+ + f_3^- f_4^- f_8^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_6+E_8)(-E_2+E_{10})(-E_9+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_4^+ - f_2^- f_3^- f_5^- f_6^- f_{11}^- + f_2^- f_3^- f_5^- f_8^- f_{11}^- - f_2^- f_5^- f_6^- f_{11}^- f_4^+ + f_2^- f_5^- f_8^- f_{11}^- f_4^+ + f_2^- f_3^- f_5^- f_6^- f_9^- - f_2^- f_5^- f_8^- f_9^- f_4^+ - f_2^- f_3^- f_5^- f_8^- f_9^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_6+E_8)(-E_2+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- - f_3^- f_4^- f_5^- f_6^- f_{11}^- - f_3^- f_4^- f_5^- f_8^- f_9^- + f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_8+E_6)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_6^- f_9^- f_{10}^- f_4^+ + f_1^- f_8^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_3^- f_6^- f_{10}^- f_{11}^- - f_1^- f_8^- f_9^- f_{10}^- f_4^+ - f_1^- f_3^- f_8^- f_9^- f_{10}^- - f_1^- f_6^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_3^- f_6^- f_9^- f_{10}^- + f_1^- f_3^- f_8^- f_{10}^- f_{11}^-}{(-E_1+E_5)(-E_6+E_8)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_9+E_{11})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_4^+ + f_3^- f_5^- f_6^- f_9^- f_{10}^- - f_3^- f_5^- f_8^- f_9^- f_{10}^- + f_5^- f_8^- f_{10}^- f_{11}^- f_4^+ - f_3^- f_5^- f_6^- f_{10}^- f_{11}^- - f_5^- f_8^- f_9^- f_{10}^- f_4^+ - f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ + f_3^- f_5^- f_8^- f_{10}^- f_{11}^-}{(-E_5+E_1)(-E_6+E_8)(-E_{10}+E_2)(-E_5-E_{10}+E_3+E_4)(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^+ + f_3^- f_4^- f_6^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^+ - f_3^- f_4^- f_8^- f_{11}^- f_{10}^+}{(-E_8+E_6)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_5+E_{10})(-E_9+E_{11})}
\end{array} \right)$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,2\}\{7,8|V|1,6\}\{9,10|V|11,8\}\{11,12|V|9,12\}f_{12}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- - f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- + f_1^- f_2^- f_5^- f_7^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- + f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ - f_1^- f_2^- f_5^- f_7^- f_9^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_5+E_8)(-E_1-E_2+E_5+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+ - f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- + f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- - f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_2^- f_7^- f_9^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_6^+ - f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_6^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_7+E_{10})(-E_9+E_{11})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+ - f_2^- f_3^- f_4^- f_7^- f_{11}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_9+E_{11})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- - f_3^- f_4^- f_5^- f_7^- f_{11}^- f_1^+ - f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- + f_3^- f_4^- f_5^- f_7^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_1^+ f_6^+ - f_3^- f_4^- f_7^- f_9^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_7+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_8^+ + f_1^- f_2^- f_3^- f_6^- f_{11}^- f_8^+ - f_1^- f_2^- f_6^- f_9^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_8^+ + f_1^- f_2^- f_7^- f_9^- f_4^+ f_8^+ - f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_6^- f_9^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_8+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{11}^- f_8^+ + f_3^- f_4^- f_7^- f_9^- f_1^+ f_8^+ - f_1^- f_3^- f_4^- f_6^- f_9^- f_8^+ - f_3^- f_4^- f_7^- f_{11}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_8+E_{10})(-E_{11}+E_9)} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{11}^- f_8^+ + f_3^- f_4^- f_6^- f_9^- f_2^+ f_8^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_8^+ - f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_8+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^+ - f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_6^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_{10}^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_7^- f_9^- f_4^+ f_{10}^+ - f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^+ - f_1^- f_2^- f_6^- f_9^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_{10}+E_8)(-E_9+E_{11})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_7^- f_{11}^- f_1^+ f_{10}^+ + f_3^- f_4^- f_7^- f_9^- f_1^+ f_{10}^+ - f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_{10}+E_8)(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_2^+ f_{10}^+ - f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_{10}^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^+ + f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_{10}+E_8)(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- - f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^-}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_9+E_{11})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_4^+ f_7^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_7^+ - f_1^- f_5^- f_6^- f_{11}^- f_4^+ f_7^+ - f_1^- f_3^- f_5^- f_6^- f_{11}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_7+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_9^- f_2^+ + f_5^- f_6^- f_8^- f_9^- f_2^+ f_4^+ - f_3^- f_5^- f_6^- f_8^- f_{11}^- f_2^+ + f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ - f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_4^+ + f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- - f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- - f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_8+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- + f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+ - f_5^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ - f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_1+E_6)(-E_8+E_{10})(-E_9+E_{11})} \\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ + f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ - f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+ - f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_8+E_{10})(-E_{11}+E_9)} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- - f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- - f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^- f_2^+ - f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_4^+ + f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_2^+ + f_5^- f_6^- f_{10}^- f_{11}^- f_2^+ f_4^+ + f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+}{(-E_2-E_7+E_5+E_6)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_8)(-E_9+E_{11})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- - f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- - f_5^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ + f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_1+E_6)(-E_{10}+E_8)(-E_{11}+E_9)} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ - f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+ - f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_6^+ + f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7-E_{10}+E_1+E_6)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_{10}+E_8)(-E_9+E_{11})} \\
\frac{+f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ + f_3^- f_5^- f_7^- f_8^- f_9^- f_1^+ - f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- - f_5^- f_7^- f_8^- f_{11}^- f_1^+ f_4^+ - f_3^- f_5^- f_7^- f_8^- f_{11}^- f_1^+ + f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- + f_5^- f_7^- f_8^- f_9^- f_1^+ f_4^+}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_8+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_8^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_8^+}{(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_8+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- + f_3^- f_5^- f_7^- f_9^- f_{10}^- f_1^+ - f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ - f_5^- f_7^- f_{10}^- f_{11}^- f_1^+ f_4^+ - f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- - f_3^- f_5^- f_7^- f_{10}^- f_{11}^- f_1^+ + f_5^- f_7^- f_9^- f_{10}^- f_1^+ f_4^+}{(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_1-E_6+E_7+E_{10})(-E_{10}+E_8)(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^+}{(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_{10}+E_8)(-E_{11}+E_9)}
\end{array} \right)$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,2\}\{7,8|V|9,8\}\{9,10|V|11,10\}\{11,12|V|1,6\}f_8^- f_{10}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- +f_1^- f_2^- f_5^- f_6^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_5-E_6+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_5-E_6+E_2+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_5^+ +f_1^- f_2^- f_7^- f_4^+ f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- +f_1^- f_2^- f_6^- f_7^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7+E_{11})(-E_1-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7+E_{11})(-E_3-E_4-E_6+E_2+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_1-E_5-E_6+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_7+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_7+E_{11})(-E_1-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_4^+ f_5^+ +f_1^- f_2^- f_3^- f_9^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_9+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_9^- f_4^+ +f_1^- f_2^- f_3^- f_6^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_9+E_{11})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_9+E_{11})(-E_3-E_4-E_6+E_2+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_9+E_{11})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{12}^- +f_1^- f_2^- f_7^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_9)(-E_7+E_{11})(-E_1-E_2+E_5+E_{12})(-E_7-E_{12}+E_1+E_6)} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_7+E_{11})(-E_3-E_4+E_5+E_{12})(-E_7-E_{12}+E_1+E_6)} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_7+E_{11})(-E_3-E_4+E_5+E_{12})(-E_2-E_7-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^- f_2^- f_9^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_9^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_9+E_7)(-E_9+E_{11})(-E_1-E_2+E_5+E_{12})(-E_9-E_{12}+E_1+E_6)} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})(-E_9-E_{12}+E_1+E_6)} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})(-E_2-E_9-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^- f_2^- f_3^- f_{11}^- f_5^+ +f_1^- f_2^- f_{11}^- f_4^+ f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_{11}+E_5+E_6)(-E_{11}+E_7)(-E_{11}+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_{11}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_{11}+E_5+E_6)(-E_{11}+E_7)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_{11}^- +f_1^- f_2^- f_6^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_{11}+E_5+E_6)(-E_{11}+E_7)(-E_{11}+E_9)(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_{11}+E_5+E_6)(-E_{11}+E_7)(-E_{11}+E_9)(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_1+E_5+E_6)(-E_{11}+E_7)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_1+E_5+E_6)(-E_{11}+E_7)(-E_{11}+E_9)(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_{11}^- f_{12}^- +f_1^- f_2^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_{11}+E_7)(-E_{11}+E_9)(-E_1-E_2+E_5+E_{12})(-E_{11}-E_{12}+E_1+E_6)} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_{11}+E_7)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_1+E_6)} \\
\frac{+f_2^- f_3^- f_4^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_{11}+E_7)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^- f_2^- f_6^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_6^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_1-E_6+E_7+E_{12})(-E_1-E_6+E_9+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_1-E_6+E_7+E_{12})(-E_1-E_6+E_9+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_2+E_7+E_{12})(-E_3-E_4-E_6+E_2+E_9+E_{12})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_7+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^+ +f_1^- f_5^- f_6^- f_4^+ f_7^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_7+E_9)(-E_7+E_{11})(-E_1-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_{12}^- f_2^+ +f_5^- f_6^- f_{12}^- f_2^+ f_4^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_5-E_6+E_2+E_{11})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_{12}^- +f_2^- f_5^- f_7^- f_{12}^- f_4^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7+E_{11})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_5^- f_6^- f_7^- f_{12}^- f_4^+ +f_3^- f_5^- f_6^- f_7^- f_{12}^-}{(-E_5-E_6+E_2+E_7)(-E_7+E_9)(-E_7+E_{11})(-E_5-E_{12}+E_3+E_4)(-E_7-E_{12}+E_1+E_6)} \\
\frac{+f_2^- f_3^- f_7^- f_{12}^- f_6^+ +f_2^- f_7^- f_{12}^- f_4^+ f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7+E_{11})(-E_7-E_{12}+E_1+E_6)(-E_2-E_7-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_5-E_6+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^+ +f_1^- f_5^- f_6^- f_4^+ f_9^+}{(-E_5-E_6+E_2+E_9)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_9+E_7)(-E_9+E_{11})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{12}^- f_4^+ +f_2^- f_3^- f_5^- f_9^- f_{12}^-}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_9+E_{11})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_5^- f_6^- f_9^- f_{12}^- f_4^+ +f_3^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_5-E_6+E_2+E_9)(-E_9+E_7)(-E_9+E_{11})(-E_5-E_{12}+E_3+E_4)(-E_9-E_{12}+E_1+E_6)} \\
\frac{+f_2^- f_9^- f_{12}^- f_4^+ f_6^+ +f_2^- f_3^- f_9^- f_{12}^- f_6^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_9+E_{11})(-E_9-E_{12}+E_1+E_6)(-E_2-E_9-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_5^- f_7^- f_{12}^- f_1^+ f_4^+ +f_3^- f_5^- f_7^- f_{12}^- f_1^+}{(-E_7+E_9)(-E_7+E_{11})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_7-E_{12}+E_1+E_6)} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{12}^+}{(-E_7+E_9)(-E_7+E_{11})(-E_3-E_4+E_5+E_{12})(-E_7-E_{12}+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_{12})} \\
\frac{+f_3^- f_5^- f_9^- f_{12}^- f_1^+ +f_5^- f_9^- f_{12}^- f_1^+ f_4^+}{(-E_9+E_7)(-E_9+E_{11})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_9-E_{12}+E_1+E_6)} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{12}^+}{(-E_9+E_7)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})(-E_9-E_{12}+E_1+E_6)(-E_3-E_4-E_6+E_2+E_9+E_{12})}
\end{array} \right.$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,2\}\{7,8|V|9,12\}\{9,10|V|1,6\}\{11,12|V|11,8\}f_{11}^{-}\left(\begin{array}{c}
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- - f_1^- f_2^- f_5^- f_6^- f_8^- f_4^+ + f_1^- f_2^- f_5^- f_6^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_{12}+E_8)} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_8^- - f_2^- f_3^- f_4^- f_5^- f_6^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_5^+ - f_1^- f_2^- f_7^- f_{12}^- f_4^+ f_5^+ - f_1^- f_2^- f_3^- f_7^- f_{12}^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_1-E_2+E_5+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_5^+ - f_2^- f_3^- f_4^- f_7^- f_{12}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_8^- f_4^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- - f_1^- f_2^- f_3^- f_6^- f_7^- f_{12}^- - f_1^- f_2^- f_6^- f_7^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_{12}^- - f_2^- f_3^- f_4^- f_6^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_{12}+E_8)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_1^+ - f_3^- f_4^- f_5^- f_6^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_1^+ f_5^+ - f_3^- f_4^- f_7^- f_{12}^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{12}^- f_1^+ - f_3^- f_4^- f_6^- f_7^- f_8^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_{12}+E_8)} \\
\frac{+f_1^- f_2^- f_9^- f_{12}^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_9^- f_{12}^- f_5^+ - f_1^- f_2^- f_8^- f_9^- f_4^+ f_5^+ - f_1^- f_2^- f_3^- f_8^- f_9^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_1-E_2+E_5+E_{10})(-E_{12}+E_8)} \\
\frac{+f_2^- f_3^- f_4^- f_8^- f_9^- f_5^+ - f_2^- f_3^- f_4^- f_9^- f_{12}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_8^- f_9^- - f_1^- f_2^- f_6^- f_9^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_6^- f_9^- f_{12}^- + f_1^- f_2^- f_6^- f_8^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_8^- f_9^- - f_2^- f_3^- f_4^- f_6^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_1^+ f_5^+ - f_3^- f_4^- f_8^- f_9^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_8)} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{12}^- f_1^+ - f_3^- f_4^- f_6^- f_8^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_{12}+E_8)} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- + f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ - f_1^- f_2^- f_7^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_9)(-E_1-E_2+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^- + f_1^- f_2^- f_8^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- - f_1^- f_2^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_9+E_7)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_1^+ - f_3^- f_4^- f_7^- f_{10}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- - f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^- f_1^+ - f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_8^- f_9^- f_{10}^- - f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_8^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_6^- f_8^- f_{10}^+ - f_1^- f_2^- f_6^- f_{12}^- f_4^+ f_{10}^+ - f_1^- f_2^- f_3^- f_6^- f_{12}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_1^+ f_{10}^+ - f_3^- f_4^- f_6^- f_{12}^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_8^- f_{10}^+ - f_2^- f_3^- f_4^- f_6^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{12}^- f_7^+ - f_3^- f_4^- f_5^- f_6^- f_8^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_8)} \\
\frac{+f_1^- f_5^- f_6^- f_{12}^- f_4^+ f_7^+ + f_1^- f_3^- f_5^- f_6^- f_{12}^- f_7^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_7^+ - f_1^- f_5^- f_6^- f_8^- f_4^+ f_7^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_{12}+E_8)} \\
\frac{+f_2^- f_5^- f_6^- f_{10}^- f_{12}^- f_4^+ + f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{12}^- - f_2^- f_3^- f_5^- f_6^- f_8^- f_{10}^- - f_2^- f_5^- f_6^- f_8^- f_{10}^- f_4^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_8)} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{12}^- + f_2^- f_5^- f_7^- f_{10}^- f_{12}^- f_4^+ - f_2^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ - f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_8)} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_{10}^- f_7^+ - f_3^- f_5^- f_6^- f_{10}^- f_{12}^- f_7^+ - f_5^- f_6^- f_{10}^- f_{12}^- f_4^+ f_7^+ + f_5^- f_6^- f_8^- f_{10}^- f_4^+ f_7^+}{(-E_5-E_6+E_2+E_7)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_1+E_6)(-E_8+E_{12})} \\
\frac{+f_2^- f_7^- f_{10}^- f_{12}^- f_4^+ f_6^+ + f_2^- f_3^- f_7^- f_{10}^- f_{12}^- f_6^+ - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ - f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_1+E_6)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_{12}+E_8)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_9^+ - f_3^- f_4^- f_5^- f_6^- f_{12}^- f_9^+}{(-E_5-E_6+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_9^+ - f_1^- f_3^- f_5^- f_6^- f_{12}^- f_9^+ + f_1^- f_5^- f_6^- f_8^- f_4^+ f_9^+ - f_1^- f_5^- f_6^- f_{12}^- f_4^+ f_9^+}{(-E_5-E_6+E_2+E_9)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_8^- f_9^- f_{10}^- + f_2^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ - f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- - f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_8+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_{10}^- f_4^+ f_9^+ + f_3^- f_5^- f_6^- f_8^- f_{10}^- f_9^+ - f_3^- f_5^- f_6^- f_{10}^- f_{12}^- f_9^+ - f_5^- f_6^- f_{10}^- f_{12}^- f_4^+ f_9^+}{(-E_5-E_6+E_2+E_9)(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_6)(-E_8+E_{12})} \\
\frac{+f_2^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+ - f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_2^- f_3^- f_8^- f_9^- f_{10}^- f_6^+ - f_2^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_9-E_{10}+E_1+E_6)(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_8+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_{10}^- f_{12}^- f_1^+ + f_5^- f_7^- f_{10}^- f_{12}^- f_1^+ f_4^+ - f_3^- f_5^- f_7^- f_8^- f_{10}^- f_1^+ - f_5^- f_7^- f_8^- f_{10}^- f_1^+ f_4^+}{(-E_7+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_1+E_6)(-E_{12}+E_8)} \\
\frac{+f_3^- f_5^- f_8^- f_9^- f_{10}^- f_1^+ - f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_1^+ - f_5^- f_9^- f_{10}^- f_{12}^- f_1^+ f_4^+ + f_5^- f_8^- f_9^- f_{10}^- f_1^+ f_4^+}{(-E_9+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_6)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{12}^- f_7^+ f_{10}^+ - f_3^- f_4^- f_6^- f_8^- f_7^+ f_{10}^+}{(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_{12}+E_8)} \\
\frac{+f_3^- f_4^- f_6^- f_{12}^- f_9^+ f_{10}^+ - f_3^- f_4^- f_6^- f_8^- f_9^+ f_{10}^+}{(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_{12}+E_8)} \\
\frac{+f_3^- f_5^- f_6^- f_{10}^- f_{12}^- f_1^+ + f_5^- f_6^- f_{10}^- f_{12}^- f_1^+ f_4^+ - f_5^- f_6^- f_8^- f_{10}^- f_1^+ f_4^+ - f_3^- f_5^- f_6^- f_8^- f_{10}^- f_1^+}{(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_9+E_{10})(-E_{12}+E_8)}
\end{array}\right)$$

$$\left(\begin{array}{c}
\frac{+f_1^- f_2^- f_5^- f_6^- f_8^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_8+E_{11})(-E_5-E_6-E_8+E_2+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_{11}^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- - f_1^- f_2^- f_5^- f_6^- f_8^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_8+E_{11})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_9^- f_4^+ f_{11}^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{11}^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- - f_1^- f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_8+E_{11})(-E_1-E_2-E_7+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_{12}^+ - f_1^- f_2^- f_5^- f_6^- f_8^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_5+E_{10})(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{12}^+ + f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{12}^- - f_1^- f_2^- f_5^- f_7^- f_9^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_5+E_{10})(-E_7-E_8+E_9+E_{12})(-E_1-E_2-E_7+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_5-E_6-E_8+E_2+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+ f_{11}^+ - f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^+ - f_2^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_3-E_4-E_7+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_2^+ f_{12}^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_3-E_4+E_5+E_{10})(-E_5-E_6-E_8+E_2+E_9+E_{12})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{12}^+ - f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_4-E_7+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_6+E_7+E_{10})(-E_1-E_6-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_6^+ f_{11}^+ + f_1^- f_2^- f_7^- f_9^- f_4^+ f_6^+ f_{11}^+ - f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_6+E_7+E_{10})(-E_1-E_6-E_9+E_7+E_8+E_{11})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{12}^- f_6^+ + f_1^- f_2^- f_7^- f_9^- f_{12}^- f_4^+ f_6^+ - f_1^- f_2^- f_7^- f_8^- f_4^+ f_6^+ f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_6^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_6+E_7+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_4-E_6-E_9+E_2+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+ f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_2-E_7-E_8-E_{11}+E_3+E_4+E_6+E_9)(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_6^+ f_{12}^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_1-E_5-E_6-E_8+E_3+E_4+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^+ - f_1^- f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_9^- f_1^+ f_{11}^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_3-E_4-E_7+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^- - f_1^- f_3^- f_4^- f_5^- f_6^- f_8^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9-E_{12}+E_1+E_5+E_6+E_8)(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_1^+ f_{12}^+ - f_3^- f_4^- f_5^- f_7^- f_9^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_4-E_7+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_6+E_7+E_{10})(-E_1-E_6-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_1^+ f_6^+ f_{11}^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_6+E_7+E_{10})(-E_1-E_6-E_9+E_7+E_8+E_{11})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_1^+ f_6^+ f_{12}^+ - f_3^- f_4^- f_7^- f_9^- f_{12}^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_6+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^+ + f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_8^- f_9^- f_{10}^+ + f_1^- f_2^- f_6^- f_8^- f_9^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_1-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_9^- f_4^+ f_{10}^+ f_{11}^+ + f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^+ f_{11}^+ - f_1^- f_2^- f_6^- f_8^- f_{11}^- f_4^+ f_{10}^+ - f_1^- f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{10}^+ - f_1^- f_2^- f_7^- f_9^- f_4^+ f_{10}^+ f_{11}^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^+ f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^+ f_{12}^+ + f_1^- f_2^- f_7^- f_8^- f_4^+ f_{10}^+ f_{12}^+ - f_1^- f_2^- f_7^- f_9^- f_{12}^- f_4^+ f_{10}^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_{12}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_8^- f_4^+ f_{10}^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_8^- f_{10}^+ f_{12}^+ - f_1^- f_2^- f_6^- f_9^- f_{12}^- f_4^+ f_{10}^+ - f_1^- f_2^- f_3^- f_6^- f_9^- f_{12}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_1-E_6-E_8+E_9+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{12}^- f_8^+ + f_1^- f_2^- f_5^- f_9^- f_{12}^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_8+E_{11})(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^- f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- f_{12}^- - f_1^- f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_5-E_8-E_{11}+E_1+E_2+E_9)(-E_{11}-E_{12}+E_1+E_6)(-E_5-E_{11}-E_{12}+E_1+E_2+E_7)} \\
\frac{+f_1^- f_2^- f_9^- f_{12}^- f_4^+ f_8^+ f_{10}^+ + f_1^- f_2^- f_3^- f_9^- f_{12}^- f_8^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_1+E_6+E_8)} \\
\frac{+f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ - f_1^- f_2^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_{10}^+ - f_1^- f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_1+E_6)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_1-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^+ f_{11}^+ - f_1^- f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_1^+ f_{10}^+ - f_3^- f_4^- f_7^- f_9^- f_1^+ f_{10}^+ f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_1^+ f_{10}^+ f_{12}^+ - f_3^- f_4^- f_7^- f_9^- f_{12}^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_8^- f_{10}^+ f_{12}^+ - f_1^- f_3^- f_4^- f_6^- f_9^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_1-E_6-E_8+E_9+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4-E_6-E_8+E_2+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_2^+ f_{10}^+ f_{11}^+ - f_3^- f_4^- f_6^- f_8^- f_{11}^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{10}^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^+ f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^+ f_{12}^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})}
\end{array}\right.$$

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\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_7^-}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_7+E_1+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_9+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_5-E_6-E_7+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_6^+ + f_1^- f_2^- f_7^- f_8^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_8^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_6^+ + f_1^- f_2^- f_8^- f_9^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_7-E_8+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_7-E_8+E_3+E_4+E_{11})(-E_3-E_4-E_6+E_1+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_3-E_4-E_6+E_1+E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_{11}+E_5+E_6+E_7)(-E_{11}+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_3-E_4-E_{11}+E_5+E_6+E_7)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- + f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_8^- f_{11}^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_{11}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4-E_6+E_1+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_5-E_6-E_7+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_3-E_4-E_{11}+E_5+E_6+E_7)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_7^+ + f_1^- f_2^- f_5^- f_9^- f_4^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_4^+ f_6^+ f_7^+ + f_1^- f_2^- f_3^- f_9^- f_6^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_6-E_7+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_2^+ f_6^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_6-E_7+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_6^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_6-E_7+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_1-E_2+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{12}^+ + f_1^- f_2^- f_8^- f_9^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_1-E_2+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_7^+ f_{12}^+ + f_1^- f_2^- f_9^- f_4^+ f_7^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_1-E_2+E_5+E_{12})(-E_9-E_{12}+E_6+E_7)} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)} \\
\frac{+f_3^- f_4^- f_9^- f_2^+ f_7^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})(-E_9-E_{12}+E_6+E_7)} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_7-E_8+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})(-E_1-E_8-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})(-E_1-E_8-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_7^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})(-E_9-E_{12}+E_6+E_7)} \\
\frac{+f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_7^+ + f_1^- f_2^- f_3^- f_5^- f_{11}^- f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_{11}+E_5+E_6+E_7)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_{11}^- f_6^+ f_7^+ + f_1^- f_2^- f_{11}^- f_4^+ f_6^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_{11}+E_5+E_6+E_7)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_7)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_2^+ f_6^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_7)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{11}^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_7)(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{11}^- f_6^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_7)(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_6-E_7+E_{11}+E_{12})}
\end{array}\right)
$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_8^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_1-E_7-E_8+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^+ + f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+ f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_1-E_7-E_8+E_5+E_6+E_{11})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_6+E_{11})(-E_5-E_6-E_8+E_2+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_9^- f_4^+ f_8^+ f_{11}^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_8^+ f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_6+E_{11})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_7^- f_9^- f_4^+ f_{11}^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_6+E_{11})(-E_1-E_2-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_6^- f_7^- f_8^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_1-E_2-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^+ f_{11}^+ + f_1^- f_2^- f_7^- f_8^- f_4^+ f_{10}^+ f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_1-E_2-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_8^+ f_{10}^+ + f_1^- f_2^- f_6^- f_9^- f_4^+ f_8^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_1-E_6-E_8+E_9+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_9^- f_8^+ f_{10}^+ f_{11}^+ + f_1^- f_2^- f_9^- f_4^+ f_8^+ f_{10}^+ f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^+ f_{11}^+ + f_1^- f_2^- f_7^- f_9^- f_4^+ f_{10}^+ f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_1-E_2-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{12}^- + f_1^- f_2^- f_5^- f_7^- f_8^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{12}^- + f_1^- f_2^- f_5^- f_7^- f_9^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_1-E_2-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{12}^- f_8^+ + f_1^- f_2^- f_5^- f_9^- f_{12}^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_7^- f_8^- f_{12}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{12}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_7-E_{10}-E_{12}+E_1+E_2+E_6)(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_7^- f_9^- f_{12}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_{12}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_7-E_{10}-E_{12}+E_1+E_2+E_6)(-E_1-E_2-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_9^- f_{12}^- f_4^+ f_8^+ f_{10}^+ + f_1^- f_2^- f_3^- f_9^- f_{12}^- f_8^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}-E_{12}+E_1+E_6+E_8)(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_7-E_8+E_2+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_7-E_8+E_2+E_5+E_6+E_{11})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_6+E_{11})(-E_5-E_6-E_8+E_2+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_8^+ f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_6+E_{11})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_6+E_{11})(-E_3-E_4-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^+ f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_6^- f_9^- f_8^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6-E_8+E_2+E_9+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_9^- f_8^+ f_{10}^+ f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^+ f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_9^- f_{12}^- f_8^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_2-E_9-E_{10}-E_{12}+E_3+E_4+E_6+E_8)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_6^+ f_{11}^+ + f_1^- f_2^- f_7^- f_8^- f_4^+ f_6^+ f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_5+E_6+E_{11})(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_6^+ f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_7-E_8+E_2+E_5+E_6+E_{11})(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_9^- f_4^+ f_6^+ f_8^+ f_{11}^+ + f_1^- f_2^- f_3^- f_9^- f_6^+ f_8^+ f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2-E_9+E_5+E_6+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_6^+ f_{11}^+ + f_1^- f_2^- f_7^- f_9^- f_4^+ f_6^+ f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2-E_9+E_5+E_6+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_1-E_2-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_9^- f_6^+ f_8^+ f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4-E_9+E_5+E_6+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+ f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4-E_9+E_5+E_6+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{12}^- f_6^+ + f_1^- f_2^- f_7^- f_8^- f_{12}^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_{12}+E_5+E_6)(-E_1-E_2-E_6+E_7+E_{10}+E_{12})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{12}^- f_6^+ + f_1^- f_2^- f_7^- f_9^- f_{12}^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_7-E_{12}+E_5+E_6)(-E_1-E_2-E_6+E_7+E_{10}+E_{12})(-E_1-E_2-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{12}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_4-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_9^- f_{12}^- f_6^+ f_8^+ + f_1^- f_2^- f_9^- f_{12}^- f_4^+ f_6^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_1-E_6-E_8+E_9+E_{10}+E_{12})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_9^- f_{12}^- f_6^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_3-E_4-E_6-E_8+E_2+E_9+E_{10}+E_{12})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|1,8\}\{7,8|V|9,12\}\{9,10|V|7,6\}\{11,12|V|11,2\}f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- +f_1^- f_2^- f_5^- f_6^- f_7^- f_4^+ -f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- -f_1^- f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- +f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+ -f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_8^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_9^- f_4^+ f_6^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_6^+ -f_1^- f_2^- f_7^- f_8^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_8^- f_9^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_2-E_6+E_8+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- -f_1^- f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_6^+ -f_1^- f_3^- f_4^- f_7^- f_8^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_2^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_2^+ -f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_2^+ f_6^+ -f_3^- f_4^- f_7^- f_8^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_2-E_6+E_8+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_4^+ f_7^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_6^+ f_7^+ +f_1^- f_2^- f_9^- f_4^+ f_6^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_2^+ f_6^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_6^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ f_{10}^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^+ -f_1^- f_2^- f_8^- f_9^- f_4^+ f_{10}^+ -f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_7^+ f_{10}^+ +f_1^- f_2^- f_9^- f_4^+ f_7^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_2^+ f_{10}^+ -f_3^- f_4^- f_7^- f_8^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_2^+ f_7^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^+ -f_1^- f_3^- f_4^- f_8^- f_9^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_7^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_{10}^+ +f_1^- f_2^- f_6^- f_7^- f_4^+ f_{10}^+ -f_1^- f_2^- f_6^- f_9^- f_4^+ f_{10}^+ -f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_6-E_7+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_2^+ f_{10}^+ -f_3^- f_4^- f_6^- f_9^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_6-E_7+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_{10}^+ -f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_6-E_7+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ -f_3^- f_4^- f_5^- f_6^- f_7^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_8+E_5+E_6+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ -f_2^- f_5^- f_6^- f_7^- f_4^+ f_8^+ +f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ -f_2^- f_3^- f_5^- f_6^- f_7^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_2-E_9+E_7+E_8)(-E_2-E_6+E_8+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_9^+ +f_1^- f_5^- f_6^- f_7^- f_4^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_6-E_7+E_9+E_{10})(-E_5-E_6-E_7+E_1+E_9+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_4^+ f_8^+ f_9^+ +f_3^- f_5^- f_6^- f_7^- f_8^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_7-E_8+E_2+E_9)(-E_6-E_7+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_6^+ f_9^+ +f_1^- f_7^- f_8^- f_4^+ f_6^+ f_9^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_6-E_7+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_5^- f_7^- f_8^- f_4^+ f_9^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_9^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_7-E_8+E_5+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- +f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ -f_1^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_{10}^-}{(-E_5-E_6+E_1+E_8)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_6+E_7)(-E_5-E_{10}+E_1+E_{12})} \\
\frac{+f_1^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ +f_1^- f_3^- f_5^- f_8^- f_9^- f_{10}^- -f_1^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ -f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_1-E_8+E_5+E_6)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_5-E_9-E_{10}+E_1+E_7+E_8)(-E_5-E_{10}+E_1+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ -f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_8^+ -f_3^- f_5^- f_6^- f_7^- f_{10}^- f_8^+ +f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_{10}+E_3+E_4)(-E_8-E_{10}+E_2+E_6)(-E_9-E_{10}+E_6+E_7)(-E_8-E_{10}+E_6+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ +f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+ -f_1^- f_3^- f_8^- f_9^- f_{10}^- f_6^+ -f_1^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+}{(-E_1-E_8+E_5+E_6)(-E_8-E_{10}+E_2+E_6)(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_6-E_7+E_9+E_{10})(-E_8-E_{10}+E_6+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- -f_1^- f_5^- f_6^- f_7^- f_{12}^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_{12}^-}{(-E_5-E_6+E_1+E_8)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_9-E_{12}+E_5+E_6+E_7)(-E_1-E_{12}+E_5+E_{10})} \\
\frac{+f_1^- f_5^- f_8^- f_9^- f_{12}^- f_4^+ -f_1^- f_5^- f_7^- f_8^- f_{12}^- f_4^+ -f_1^- f_3^- f_5^- f_7^- f_8^- f_{12}^- +f_1^- f_3^- f_5^- f_8^- f_9^- f_{12}^-}{(-E_1-E_8+E_5+E_6)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_9-E_{12}+E_7+E_8)(-E_1-E_{12}+E_5+E_{10})} \\
\frac{+f_1^- f_7^- f_8^- f_{12}^- f_4^+ f_6^+ +f_1^- f_3^- f_7^- f_8^- f_{12}^- f_6^+ -f_1^- f_3^- f_8^- f_9^- f_{12}^- f_6^+ -f_1^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+}{(-E_1-E_8+E_5+E_6)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_6-E_{12}+E_8+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ +f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+ -f_5^- f_6^- f_7^- f_{12}^- f_4^+ f_8^+ -f_3^- f_5^- f_6^- f_7^- f_{12}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_{12}+E_2)(-E_5-E_6-E_{12}+E_3+E_4+E_8)(-E_9-E_{12}+E_7+E_8)(-E_6-E_{12}+E_8+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_2^+ f_9^+ +f_5^- f_6^- f_7^- f_2^+ f_4^+ f_9^+}{(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_2-E_9+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_7^+ f_8^+}{(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_6^+ f_7^+ f_8^+}{(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^+ -f_3^- f_4^- f_5^- f_6^- f_7^- f_{12}^+}{(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_5-E_6-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_7^+ f_{12}^+}{(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_4^- f_9^- f_6^+ f_7^+ f_{12}^+}{(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_6-E_7+E_9+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_9^+ f_{12}^+ +f_5^- f_6^- f_7^- f_4^+ f_9^+ f_{12}^+}{(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_6-E_7+E_9+E_{10})(-E_{12}+E_2)(-E_5-E_6-E_7+E_1+E_9+E_{12})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_4^- f_9^- f_7^+ f_8^+ f_{10}^+}{(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_9^+ f_{10}^+ +f_1^- f_7^- f_8^- f_4^+ f_9^+ f_{10}^+}{(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_9-E_{10}+E_6+E_7)(-E_1-E_7-E_8+E_5+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_{10}^- f_2^+ f_4^+ -f_5^- f_8^- f_9^- f_{10}^- f_2^+ f_4^+ -f_3^- f_5^- f_8^- f_9^- f_{10}^- f_2^+ +f_3^- f_5^- f_7^- f_8^- f_{10}^- f_2^+}{(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_8-E_{10}+E_2+E_6)(-E_2+E_{12})}
\end{array} \right)$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- +f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ -f_1^- f_2^- f_6^- f_9^- f_{12}^- f_4^+ f_5^+ -f_1^- f_2^- f_3^- f_6^- f_9^- f_{12}^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_2+E_5+E_{10})(-E_1-E_9+E_5+E_{11})(-E_5-E_6-E_7+E_1+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_5^+ -f_1^- f_2^- f_8^- f_9^- f_{12}^- f_4^+ f_5^+ -f_1^- f_2^- f_3^- f_8^- f_9^- f_{12}^- f_5^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_1-E_2+E_5+E_{10})(-E_1-E_9+E_5+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- -f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- -f_1^- f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_2+E_5+E_{10})(-E_5-E_{11}+E_1+E_9)(-E_{11}-E_{12}+E_6+E_7)}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^- +f_1^- f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_5^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_1-E_2+E_5+E_{10})(-E_5-E_{11}+E_1+E_9)(-E_5-E_{11}-E_{12}+E_1+E_7+E_8)}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_2+E_5+E_{10})(-E_5-E_6-E_7+E_1+E_9+E_{12})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ f_5^+ f_{12}^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_5^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_1-E_2+E_5+E_{10})(-E_7-E_8+E_9+E_{12})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- -f_1^- f_3^- f_4^- f_6^- f_9^- f_{12}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_3-E_4+E_5+E_{10})(-E_1-E_9+E_5+E_{11})(-E_5-E_6-E_7+E_1+E_9+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_5^+ -f_1^- f_3^- f_4^- f_8^- f_9^- f_{12}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_1-E_9+E_5+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{12}^- -f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_3-E_4+E_5+E_{10})(-E_5-E_{11}+E_1+E_9)(-E_{11}-E_{12}+E_6+E_7)}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- -f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_5-E_{11}+E_1+E_9)(-E_5-E_{11}-E_{12}+E_1+E_7+E_8)}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_3-E_4+E_5+E_{10})(-E_5-E_6-E_7+E_1+E_9+E_{12})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_5^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_7-E_8+E_9+E_{12})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_{12}^- f_8^+ +f_1^- f_2^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+ -f_1^- f_2^- f_6^- f_7^- f_8^- f_9^- f_4^+ -f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_6-E_9+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^- -f_1^- f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ -f_1^- f_2^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_8-E_{11}+E_6+E_9)(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_6^- f_7^- f_8^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_7-E_8+E_9+E_{12})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_{12}^- f_8^+ -f_1^- f_3^- f_4^- f_6^- f_7^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_6-E_9+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- -f_1^- f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_8-E_{11}+E_6+E_9)(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_7-E_8+E_9+E_{12})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- f_2^+ -f_3^- f_4^- f_6^- f_9^- f_{12}^- f_2^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_2-E_5-E_6-E_7+E_3+E_4+E_9+E_{12})}$$

$$\frac{+f_3^- f_4^- f_8^- f_9^- f_{12}^- f_2^+ f_5^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_2^+ -f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_3-E_4+E_5+E_{10})(-E_2-E_5-E_{11}+E_3+E_4+E_9)(-E_{11}-E_{12}+E_6+E_7)}$$

$$\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_2^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_2-E_5-E_{11}+E_3+E_4+E_9)(-E_2-E_5-E_{11}-E_{12}+E_3+E_4+E_7+E_8)}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_3-E_4+E_5+E_{10})(-E_2-E_5-E_6-E_7+E_3+E_4+E_9+E_{12})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_2^+ f_5^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_4-E_7-E_8+E_2+E_5+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_9^- f_{12}^- f_2^+ f_8^+ -f_3^- f_4^- f_6^- f_7^- f_8^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_6-E_9+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_2^+ -f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_8-E_{11}+E_6+E_9)(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_7-E_8+E_9+E_{12})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ -f_1^- f_2^- f_8^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^- f_{12}^- +f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^- -f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+ f_{10}^+ -f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^+ +f_1^- f_2^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}-E_{12}+E_2+E_6+E_7)}$$

$$\frac{+f_1^- f_2^- f_6^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_1^- f_2^- f_3^- f_6^- f_{11}^- f_{12}^- f_{10}^+ -f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{10}^+ -f_1^- f_2^- f_6^- f_7^- f_{11}^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_6+E_7)}$$

$$\frac{+f_1^- f_2^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_1^- f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_{10}^+ -f_1^- f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_6^- f_7^- f_4^+ f_{10}^+ f_{12}^+ +f_1^- f_2^- f_3^- f_6^- f_7^- f_{10}^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_2-E_6-E_7+E_9+E_{10}+E_{12})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_9^- f_{12}^- f_5^+ f_7^+ +f_1^- f_2^- f_9^- f_{12}^- f_4^+ f_5^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_9+E_5+E_{11})(-E_1-E_9-E_{12}+E_5+E_6+E_7)(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_7^+ +f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_5-E_{11}+E_1+E_9)(-E_{11}-E_{12}+E_6+E_7)(-E_5-E_{11}-E_{12}+E_1+E_7+E_8)}$$

$$\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_7^+ +f_1^- f_2^- f_9^- f_{10}^- f_{12}^- f_4^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_2+E_6+E_7)}$$

$$\frac{+f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_7^+ f_{10}^+ +f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_7^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_6+E_7)(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{12}^- f_2^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^- f_2^+ -f_3^- f_4^- f_6^- f_7^- f_9^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}-E_{12}+E_2+E_6+E_7)}$$

$$\frac{+f_3^- f_4^- f_6^- f_{11}^- f_{12}^- f_2^+ f_{10}^+ -f_3^- f_4^- f_6^- f_7^- f_{11}^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_6+E_7)}$$

$$\frac{+f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_2^+ f_{10}^+ -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_7^- f_2^+ f_{10}^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_2-E_6-E_7+E_9+E_{10}+E_{12})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- -f_1^- f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^+ -f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_6-E_7+E_1+E_9+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_6^- f_{11}^- f_{12}^- f_{10}^+ -f_1^- f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_{11}-E_{12}+E_6+E_7)}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- -f_1^- f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_7-E_8-E_{10}+E_3+E_4+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_7-E_8+E_9+E_{12})(-E_1-E_7-E_8-E_{10}+E_3+E_4+E_{11}+E_{12})}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|1,8\}\{9,10|V|11,2\}\{11,12|V|9,6\}f_8^- \left(\begin{array}{c}
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_7)(-E_5-E_6+E_1+E_{10})(-E_1-E_2-E_{11}+E_5+E_6+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- - f_1^- f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_7)(-E_5-E_6+E_1+E_{10})(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- + f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_7)(-E_1-E_{10}+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_7)(-E_1-E_{10}+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- - f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_7)(-E_1-E_{10}+E_5+E_6)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_7)(-E_1-E_{10}+E_5+E_6)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4-E_6+E_1+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_{11}^- f_9^+ + f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_7)(-E_1-E_2-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_{11}^- f_4^+ f_6^+ f_9^+ + f_1^- f_2^- f_3^- f_{11}^- f_6^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_7)(-E_1-E_2-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_7)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{11}^- f_6^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_7)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_7)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})(-E_{10}-E_{12}+E_2+E_6)} \\
\frac{+f_1^- f_2^- f_3^- f_{11}^- f_9^+ f_{12}^+ + f_1^- f_2^- f_{11}^- f_4^+ f_9^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_7)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^+ - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_7)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_1-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^- f_3^- f_4^- f_{11}^- f_9^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_7)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_1^- f_2^- f_6^- f_9^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_9^- f_{12}^+ - f_1^- f_2^- f_3^- f_6^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_7)(-E_1-E_2+E_5+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{11}^- f_{12}^+ - f_1^- f_3^- f_4^- f_6^- f_9^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_7)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_1+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+ - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_7)(-E_2-E_5-E_6+E_3+E_4+E_{10})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_7)(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_6^+ - f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_7)(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_7)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_2^+ f_6^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_7)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_7)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{10}-E_{12}+E_2+E_6)} \\
\frac{+f_3^- f_4^- f_{11}^- f_2^+ f_9^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_7)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_6^- f_9^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_5+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- - f_3^- f_4^- f_5^- f_6^- f_7^- f_9^-}{(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_5-E_6+E_7+E_{10})(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ + f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- - f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- - f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_2-E_7+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ + f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- - f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- - f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_7+E_5+E_{12})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ - f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_6^+ + f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ - f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- - f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_{11}+E_7+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_{11}+E_7+E_9+E_{10})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{11}^- f_9^+}{(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_7+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_6^+ f_9^+}{(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_7+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_{11}^- f_9^+ + f_2^- f_5^- f_7^- f_{11}^- f_4^+ f_9^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_7+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_{11}^- f_6^+ f_9^+ + f_2^- f_7^- f_{11}^- f_4^+ f_6^+ f_9^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^+ + f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_{12}^+ - f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+ - f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_7+E_5+E_{12})(-E_{10}-E_{12}+E_2+E_6)} \\
\frac{+f_2^- f_3^- f_7^- f_{11}^- f_9^+ f_{12}^+ + f_2^- f_7^- f_{11}^- f_4^+ f_9^+ f_{12}^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_7+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+}{(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_3-E_4-E_{11}+E_7+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_9^+ f_{12}^+}{(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_3-E_4-E_{11}+E_7+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^+}{(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^+ + f_2^- f_6^- f_7^- f_{11}^- f_4^+ f_{12}^+ - f_2^- f_6^- f_7^- f_9^- f_4^+ f_{12}^+ - f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7+E_5+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_4^+ f_{11}^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_{11}^+}{(-E_1+E_7)(-E_5-E_6+E_1+E_{10})(-E_5-E_6-E_9+E_1+E_2+E_{11})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_9^- f_{10}^- f_6^+ f_{11}^+ + f_1^- f_9^- f_{10}^- f_4^+ f_6^+ f_{11}^+}{(-E_1+E_7)(-E_1-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_{11}^+ + f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_1+E_7)(-E_1-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_1-E_9-E_{10}+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- - f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- + f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+}{(-E_1+E_7)(-E_5-E_6+E_1+E_{10})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_1^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+}{(-E_1+E_7)(-E_1-E_{10}+E_5+E_6)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_1-E_9-E_{10}+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ + f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_3^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_1+E_7)(-E_1-E_{10}+E_5+E_6)(-E_{10}-E_{12}+E_2+E_6)(-E_1-E_{10}-E_{12}+E_3+E_4+E_6)(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_9^- f_4^+ f_{11}^+ + f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^+}{(-E_7+E_1)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_7^- f_9^- f_{10}^- f_4^+ f_6^+ f_{11}^+ + f_3^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_7+E_1)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_7-E_9-E_{10}+E_3+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})}
\end{array}\right.$$

$$-\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,2\}\{7,8|V|9,8\}\{9,10|V|1,12\}\{11,12|V|11,6\}f_8^- f_{11}^- \Bigg(
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- +f_1^- f_2^- f_5^- f_6^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_6+E_{12})}
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_6+E_{12})}
\frac{+f_1^- f_2^- f_7^- f_4^+ f_5^+ +f_1^- f_2^- f_3^- f_7^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_1-E_2+E_5+E_{10})(-E_2-E_7+E_5+E_{12})}
\frac{+f_2^- f_3^- f_4^- f_7^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_2-E_7+E_5+E_{12})}
\frac{+f_1^- f_2^- f_6^- f_7^- f_4^+ +f_1^- f_2^- f_3^- f_6^- f_7^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_6+E_{12})}
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_6+E_{12})}
\frac{+f_3^- f_4^- f_5^- f_6^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_6+E_{12})}
\frac{+f_3^- f_4^- f_7^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_7+E_1+E_5+E_{12})}
\frac{+f_3^- f_4^- f_6^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_6+E_{12})}
\frac{+f_1^- f_2^- f_3^- f_9^- f_5^+ +f_1^- f_2^- f_9^- f_4^+ f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_1-E_2+E_5+E_{10})(-E_2-E_9+E_5+E_{12})}
\frac{+f_2^- f_3^- f_4^- f_9^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_2-E_9+E_5+E_{12})}
\frac{+f_1^- f_2^- f_6^- f_9^- f_4^+ +f_1^- f_2^- f_3^- f_6^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_6+E_{12})}
\frac{+f_2^- f_3^- f_4^- f_6^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_6+E_{12})}
\frac{+f_3^- f_4^- f_9^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_1+E_5+E_{12})}
\frac{+f_3^- f_4^- f_6^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_6+E_{12})}
\frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- +f_1^- f_2^- f_7^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_9)(-E_1-E_2+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_7-E_{10}+E_1+E_{12})}
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- +f_1^- f_2^- f_9^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_9+E_7)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_9-E_{10}+E_1+E_{12})}
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_7-E_{10}+E_1+E_{12})}
\frac{+f_2^- f_3^- f_4^- f_7^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_2-E_7-E_{10}+E_3+E_4+E_{12})}
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_9-E_{10}+E_1+E_{12})}
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_2-E_9-E_{10}+E_3+E_4+E_{12})}
\frac{+f_1^- f_2^- f_7^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_9)(-E_{12}+E_6)(-E_2-E_7+E_5+E_{12})(-E_1-E_{12}+E_7+E_{10})}
\frac{+f_2^- f_3^- f_4^- f_7^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_{12}+E_6)(-E_2-E_7+E_5+E_{12})(-E_3-E_4-E_{12}+E_2+E_7+E_{10})}
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_{12}+E_6)(-E_3-E_4-E_7+E_1+E_5+E_{12})(-E_1-E_{12}+E_7+E_{10})}
\frac{+f_1^- f_2^- f_3^- f_9^- f_{12}^- +f_1^- f_2^- f_9^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_9+E_7)(-E_{12}+E_6)(-E_2-E_9+E_5+E_{12})(-E_1-E_{12}+E_9+E_{10})}
\frac{+f_2^- f_3^- f_4^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_{12}+E_6)(-E_2-E_9+E_5+E_{12})(-E_3-E_4-E_{12}+E_2+E_9+E_{10})}
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_{12}+E_6)(-E_3-E_4-E_9+E_1+E_5+E_{12})(-E_1-E_{12}+E_9+E_{10})}
\frac{+f_1^- f_2^- f_6^- f_4^+ f_{10}^+ +f_1^- f_2^- f_3^- f_6^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_9+E_{10})(-E_6+E_{12})}
\frac{+f_1^- f_2^- f_3^- f_5^- f_{12}^- +f_1^- f_2^- f_5^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_{12}+E_6)(-E_5-E_{12}+E_2+E_7)(-E_5-E_{12}+E_2+E_9)}
\frac{+f_1^- f_2^- f_3^- f_{12}^- f_{10}^+ +f_1^- f_2^- f_{12}^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_{12}+E_6)(-E_1-E_{12}+E_7+E_{10})(-E_1-E_{12}+E_9+E_{10})}
\frac{+f_3^- f_4^- f_6^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_9+E_{10})(-E_6+E_{12})}
\frac{+f_2^- f_3^- f_4^- f_6^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_6+E_{12})}
\frac{+f_2^- f_3^- f_4^- f_5^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_6)(-E_5-E_{12}+E_2+E_7)(-E_5-E_{12}+E_2+E_9)}
\frac{+f_3^- f_4^- f_5^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_6)(-E_1-E_5-E_{12}+E_3+E_4+E_7)(-E_1-E_5-E_{12}+E_3+E_4+E_9)}
\frac{+f_3^- f_4^- f_{12}^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_6)(-E_1-E_{12}+E_7+E_{10})(-E_1-E_{12}+E_9+E_{10})}
\frac{+f_2^- f_3^- f_4^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_6)(-E_3-E_4-E_{12}+E_2+E_7+E_{10})(-E_3-E_4-E_{12}+E_2+E_9+E_{10})}
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_6+E_{12})}
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^+ +f_1^- f_5^- f_6^- f_4^+ f_7^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_6+E_{12})}
\frac{+f_2^- f_3^- f_5^- f_6^- f_{10}^- +f_2^- f_5^- f_6^- f_{10}^- f_4^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_6+E_{12})}
\frac{+f_2^- f_3^- f_5^- f_7^- f_{10}^- +f_2^- f_5^- f_7^- f_{10}^- f_4^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_2-E_7+E_5+E_{12})}
\frac{+f_5^- f_6^- f_{10}^- f_4^+ f_7^+ +f_3^- f_5^- f_6^- f_{10}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_1+E_6)(-E_6+E_{12})}
\frac{+f_2^- f_7^- f_{10}^- f_4^+ f_6^+ +f_2^- f_3^- f_7^- f_{10}^- f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_1+E_6)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_6+E_{12})}
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^+}{(-E_5-E_6+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_6+E_{12})}
\frac{+f_1^- f_5^- f_6^- f_4^+ f_9^+ +f_1^- f_3^- f_5^- f_6^- f_9^+}{(-E_5-E_6+E_2+E_9)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_6+E_{12})}
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_4^+ +f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_2-E_9+E_5+E_{12})}
\frac{+f_3^- f_5^- f_6^- f_{10}^- f_9^+ +f_5^- f_6^- f_{10}^- f_4^+ f_9^+}{(-E_5-E_6+E_2+E_9)(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_6)(-E_6+E_{12})}
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_6^+ +f_2^- f_9^- f_{10}^- f_4^+ f_6^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_9-E_{10}+E_1+E_6)(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_6+E_{12})}
\frac{+f_5^- f_7^- f_{10}^- f_1^+ f_4^+ +f_3^- f_5^- f_7^- f_{10}^- f_1^+}{(-E_7+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_1+E_6)(-E_7-E_{10}+E_1+E_{12})}$$

$$
-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,2\}\{7,8|V|9,8\}\{9,10|V|11,6\}\{11,12|V|1,12\}f_8^- f_{12}^-
\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_6^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^-}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_1+E_{11})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f_1^- f_2^- f_3^- f_7^- f_5^+ + f_1^- f_2^- f_7^- f_4^+ f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_1-E_2+E_5+E_{10})(-E_1+E_{11})}\\
\frac{+f_2^- f_3^- f_4^- f_7^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f_1^- f_2^- f_6^- f_7^- f_4^+ + f_1^- f_2^- f_3^- f_6^- f_7^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_1+E_{11})}\\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_1+E_{11})}\\
\frac{+f_3^- f_4^- f_7^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_1+E_{11})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_1+E_{11})}\\
\frac{+f_1^- f_2^- f_3^- f_9^- f_5^+ + f_1^- f_2^- f_9^- f_4^+ f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_1-E_2+E_5+E_{10})(-E_1+E_{11})}\\
\frac{+f_2^- f_3^- f_4^- f_9^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- + f_1^- f_2^- f_6^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f_2^- f_3^- f_4^- f_6^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_1+E_{11})}\\
\frac{+f_3^- f_4^- f_6^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- + f_1^- f_2^- f_7^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_9)(-E_1-E_2+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_1+E_{11})}\\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- + f_1^- f_2^- f_9^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_9+E_7)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_1+E_{11})}\\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_1+E_{11})}\\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_3-E_4+E_2+E_{11})}\\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_1+E_{11})}\\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_3-E_4+E_2+E_{11})}\\
\frac{+f_1^- f_2^- f_6^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_6^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f_3^- f_4^- f_6^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_7+E_5+E_6+E_{11})}\\
\frac{+f_1^- f_5^- f_6^- f_4^+ f_7^+ + f_1^- f_3^- f_5^- f_6^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_1+E_{11})}\\
\frac{+f_3^- f_5^- f_6^- f_{10}^- f_2^+ + f_5^- f_6^- f_{10}^- f_2^+ f_4^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{10}+E_2+E_{11})}\\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{11}^- + f_2^- f_5^- f_6^- f_{11}^- f_4^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_{11}+E_1)(-E_2-E_{11}+E_3+E_4)(-E_2-E_{11}+E_5+E_{10})}\\
\frac{+f_2^- f_5^- f_7^- f_{10}^- f_4^+ + f_2^- f_3^- f_5^- f_7^- f_{10}^-}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{10}+E_2+E_{11})}\\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{10}^- + f_5^- f_6^- f_7^- f_{10}^- f_4^+}{(-E_5-E_6+E_2+E_7)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_1+E_6)(-E_7-E_{10}+E_6+E_{11})}\\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_6^+ + f_2^- f_7^- f_{10}^- f_4^+ f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_1+E_6)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_7-E_{10}+E_6+E_{11})}\\
\frac{+f_2^- f_3^- f_7^- f_{11}^- f_5^+ + f_2^- f_7^- f_{11}^- f_4^+ f_5^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_{11}+E_1)(-E_2-E_{11}+E_3+E_4)(-E_2-E_{11}+E_5+E_{10})}\\
\frac{+f_2^- f_6^- f_7^- f_{11}^- f_4^+ + f_2^- f_3^- f_6^- f_7^- f_{11}^-}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_{11}+E_1)(-E_2-E_{11}+E_3+E_4)(-E_6-E_{11}+E_7+E_{10})}\\
\frac{+f_3^- f_5^- f_6^- f_{11}^- f_7^+ + f_5^- f_6^- f_{11}^- f_4^+ f_7^+}{(-E_5-E_6+E_2+E_7)(-E_7+E_9)(-E_{11}+E_1)(-E_5-E_6-E_{11}+E_3+E_4+E_7)(-E_6-E_{11}+E_7+E_{10})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_5-E_6+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_6+E_{11})}\\
\frac{+f_1^- f_5^- f_6^- f_4^+ f_9^+ + f_1^- f_3^- f_5^- f_6^- f_9^+}{(-E_5-E_6+E_2+E_9)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_4^+ + f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{10}+E_2+E_{11})}\\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- + f_5^- f_6^- f_9^- f_{10}^- f_4^+}{(-E_5-E_6+E_2+E_9)(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_6)(-E_9-E_{10}+E_6+E_{11})}\\
\frac{+f_2^- f_9^- f_{10}^- f_4^+ f_6^+ + f_2^- f_3^- f_9^- f_{10}^- f_6^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_9-E_{10}+E_1+E_6)(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_9-E_{10}+E_6+E_{11})}\\
\frac{+f_2^- f_3^- f_9^- f_{11}^- f_5^+ + f_2^- f_9^- f_{11}^- f_4^+ f_5^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_{11}+E_1)(-E_2-E_{11}+E_3+E_4)(-E_2-E_{11}+E_5+E_{10})}\\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{11}^- + f_2^- f_6^- f_9^- f_{11}^- f_4^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_{11}+E_1)(-E_2-E_{11}+E_3+E_4)(-E_6-E_{11}+E_9+E_{10})}\\
\frac{+f_3^- f_5^- f_6^- f_{11}^- f_9^+ + f_5^- f_6^- f_{11}^- f_4^+ f_9^+}{(-E_5-E_6+E_2+E_9)(-E_9+E_7)(-E_{11}+E_1)(-E_5-E_6-E_{11}+E_3+E_4+E_9)(-E_6-E_{11}+E_9+E_{10})}\\
\frac{+f_3^- f_5^- f_7^- f_{10}^- f_1^+ + f_5^- f_7^- f_{10}^- f_1^+ f_4^+}{(-E_7+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_1+E_6)(-E_1+E_{11})}\\
\frac{+f_3^- f_5^- f_9^- f_{10}^- f_1^+ + f_5^- f_9^- f_{10}^- f_1^+ f_4^+}{(-E_9+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_6)(-E_1+E_{11})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^+}{(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_7-E_{10}+E_6+E_{11})}\\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^+}{(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_9-E_{10}+E_6+E_{11})}\\
\frac{+f_3^- f_4^- f_7^- f_5^+ f_{11}^+}{(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})(-E_3-E_4-E_7+E_5+E_6+E_{11})}\\
\frac{+f_3^- f_4^- f_9^- f_5^+ f_{11}^+}{(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})(-E_3-E_4-E_9+E_5+E_6+E_{11})}
\end{array}\right)
$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_4^+ + f_2^- f_3^- f_5^- f_6^- f_7^- f_1^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- + f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_6+E_{11})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_6+E_{11})}$$

$$\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_1^- f_2^- f_8^- f_9^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_8^- f_9^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_2-E_9+E_8+E_{11})}$$

$$\frac{+f_1^- f_2^- f_6^- f_7^- f_8^- f_4^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_2-E_6+E_8+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_8^- f_9^- + f_1^- f_2^- f_6^- f_8^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_2-E_6+E_8+E_{10})(-E_2-E_9+E_8+E_{11})}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_3^- f_4^- f_8^- f_9^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_1+E_8+E_{11})}$$

$$\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_3-E_4-E_9+E_1+E_8+E_{11})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_{11}^- f_1^+ + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_2+E_5+E_{10})(-E_{11}+E_7)(-E_5-E_6-E_{11}+E_1+E_2+E_9)}$$

$$\frac{+f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_8^- f_{11}^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_1-E_2+E_5+E_{10})(-E_{11}+E_7)(-E_8-E_{11}+E_2+E_9)}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_7)(-E_5-E_6-E_{11}+E_3+E_4+E_9)}$$

$$\frac{+f_1^- f_3^- f_4^- f_8^- f_{11}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_7)(-E_1-E_8-E_{11}+E_3+E_4+E_9)}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_8^- f_{11}^- + f_1^- f_2^- f_6^- f_8^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_{11}+E_7)(-E_8-E_{11}+E_2+E_9)}$$

$$\frac{+f_1^- f_3^- f_4^- f_6^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_{11}+E_7)(-E_1-E_8-E_{11}+E_3+E_4+E_9)}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_6+E_{11})}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_2^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_2^- f_3^- f_4^- f_8^- f_9^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_2-E_9+E_8+E_{11})}$$

$$\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_2-E_6+E_8+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_2^- f_3^- f_4^- f_6^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_2-E_6+E_8+E_{10})(-E_2-E_9+E_8+E_{11})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_{11}^- f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_7)(-E_5-E_6-E_{11}+E_3+E_4+E_9)}$$

$$\frac{+f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_7)(-E_8-E_{11}+E_2+E_9)}$$

$$\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_{11}+E_7)(-E_8-E_{11}+E_2+E_9)}$$

$$\frac{+f_1^- f_2^- f_3^- f_9^- f_5^+ f_7^+ + f_1^- f_2^- f_9^- f_4^+ f_5^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_7^+ + f_1^- f_2^- f_6^- f_9^- f_4^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_2^- f_3^- f_4^- f_9^- f_5^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_2^- f_3^- f_4^- f_6^- f_9^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_3^- f_4^- f_9^- f_1^+ f_5^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_3^- f_4^- f_6^- f_9^- f_1^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- + f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_7+E_{11})}$$

$$\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^- + f_1^- f_2^- f_8^- f_9^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_2-E_9+E_8+E_{11})}$$

$$\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_7^+ + f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_7+E_{11})}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_7+E_{11})}$$

$$\frac{+f_2^- f_3^- f_4^- f_8^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_2-E_9+E_8+E_{11})}$$

$$\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_7+E_{11})}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_7+E_{11})}$$

$$\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_3-E_4-E_9+E_1+E_8+E_{11})}$$

$$\frac{+f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_7+E_{11})}$$

$$\frac{+f_1^- f_2^- f_6^- f_7^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_6-E_7+E_9+E_{10})(-E_7+E_{11})}$$

$$\frac{+f_1^- f_2^- f_6^- f_9^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_6+E_{11})}$$

$$\frac{+f_1^- f_2^- f_8^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_8^- f_{10}^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_{11}+E_7)(-E_8-E_{11}+E_2+E_9)}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_{11}+E_7)(-E_6-E_{11}+E_9+E_{10})}$$

$$\frac{+f_1^- f_2^- f_9^- f_4^+ f_5^+ f_{11}^+ + f_1^- f_2^- f_3^- f_9^- f_5^+ f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_{11}+E_7)(-E_1-E_2-E_9+E_5+E_6+E_{11})(-E_2-E_9+E_8+E_{11})}$$

$$\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^+ + f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_{11}+E_7)(-E_2-E_9+E_8+E_{11})(-E_9-E_{10}+E_6+E_{11})}$$

$$
-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,12\}\{7,8|V|9,8\}\{9,10|V|1,6\}\{11,12|V|11,2\}f_8^- f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_6^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^-}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_7^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_1-E_2+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- + f_1^- f_2^- f_6^- f_7^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_9^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_1-E_2+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_6^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_9)(-E_1-E_2+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_9+E_7)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_{10}^+ + f_1^- f_2^- f_6^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^+ + f_1^- f_5^- f_6^- f_4^+ f_7^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_5^- f_6^- f_{10}^- f_2^+ f_4^+ + f_3^- f_5^- f_6^- f_{10}^- f_2^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_{10}^- + f_2^- f_5^- f_7^- f_{10}^- f_4^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_2+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_{10}^- f_4^+ + f_3^- f_5^- f_6^- f_7^- f_{10}^-}{(-E_5-E_6+E_2+E_7)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_1+E_6)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_7^- f_{10}^- f_4^+ f_6^+ + f_2^- f_3^- f_7^- f_{10}^- f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_1+E_6)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_5-E_6+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_5-E_6+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^+ + f_1^- f_5^- f_6^- f_4^+ f_9^+}{(-E_5-E_6+E_2+E_9)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_5-E_6+E_9+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_4^+ + f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_2+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- + f_5^- f_6^- f_9^- f_{10}^- f_4^+}{(-E_5-E_6+E_2+E_9)(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_6)(-E_5-E_6+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_6^+ + f_2^- f_9^- f_{10}^- f_4^+ f_6^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_9-E_{10}+E_1+E_6)(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_2+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_{10}^- f_1^+ + f_5^- f_7^- f_{10}^- f_1^+ f_4^+}{(-E_7+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_1+E_6)(-E_5-E_{10}+E_1+E_{12})} \\
\frac{+f_5^- f_9^- f_{10}^- f_1^+ f_4^+ + f_3^- f_5^- f_9^- f_{10}^- f_1^+}{(-E_9+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_6)(-E_5-E_{10}+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^+}{(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^+}{(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4-E_6+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_5^+}{(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_5^+}{(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_9-E_{12}+E_5+E_6)} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{12}^-}{(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^-}{(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_9-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_5^- f_7^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_5^- f_7^- f_{10}^- f_{12}^-}{(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_2)(-E_7-E_{12}+E_5+E_6)(-E_5-E_{10}+E_1+E_{12})} \\
\frac{+f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_5^- f_9^- f_{10}^- f_{12}^-}{(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_2)(-E_9-E_{12}+E_5+E_6)(-E_5-E_{10}+E_1+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_{12}^- + f_1^- f_6^- f_7^- f_{12}^- f_4^+}{(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_1^- f_3^- f_7^- f_{10}^- f_{12}^- + f_1^- f_7^- f_{10}^- f_{12}^- f_4^+}{(-E_7+E_9)(-E_7-E_{10}+E_1+E_6)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_{10})} \\
\frac{+f_7^- f_{10}^- f_{12}^- f_4^+ f_6^+ + f_3^- f_7^- f_{10}^- f_{12}^- f_6^+}{(-E_7+E_9)(-E_7-E_{10}+E_1+E_6)(-E_{12}+E_2)(-E_7-E_{12}+E_5+E_6)(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)}
\end{array} \right)
$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,12\}\{7,8|V|9,8\}\{9,10|V|11,2\}\{11,12|V|1,6\}f_8^-\left(\begin{array}{c}
\frac{+f_1^-f_2^-f_5^-f_7^-f_{12}^-f_4^++f_1^-f_2^-f_3^-f_5^-f_7^-f_{12}^--f_1^-f_2^-f_3^-f_5^-f_6^-f_7^--f_1^-f_2^-f_5^-f_6^-f_7^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_9)(-E_1-E_2+E_5+E_{10})(-E_1-E_7+E_5+E_{11})(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_1^-f_2^-f_5^-f_9^-f_{12}^-f_4^++f_1^-f_2^-f_3^-f_5^-f_9^-f_{12}^--f_1^-f_2^-f_3^-f_5^-f_6^-f_9^--f_1^-f_2^-f_5^-f_6^-f_9^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_9+E_7)(-E_1-E_2+E_5+E_{10})(-E_1-E_9+E_5+E_{11})(-E_9-E_{12}+E_5+E_6)} \\
\frac{+f_1^-f_2^-f_3^-f_7^-f_{12}^-f_{10}^++f_1^-f_2^-f_7^-f_{12}^-f_4^+f_{10}^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_{10}^+-f_1^-f_2^-f_6^-f_7^-f_4^+f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_9)(-E_1-E_2+E_5+E_{10})(-E_7-E_{10}+E_2+E_{11})(-E_7-E_{10}-E_{12}+E_1+E_2+E_6)} \\
\frac{+f_1^-f_2^-f_3^-f_6^-f_9^-f_{10}^++f_1^-f_2^-f_6^-f_9^-f_4^+f_{10}^+-f_1^-f_2^-f_9^-f_{12}^-f_4^+f_{10}^+-f_1^-f_2^-f_3^-f_9^-f_{12}^-f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_9+E_7)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2-E_6+E_9+E_{10}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_7^-f_{12}^--f_1^-f_3^-f_4^-f_5^-f_6^-f_7^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_1-E_7+E_5+E_{11})(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_3^-f_4^-f_5^-f_7^-f_{12}^-f_2^+-f_3^-f_4^-f_5^-f_6^-f_7^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_7+E_2+E_5+E_{11})(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_9^-f_{12}^--f_1^-f_3^-f_4^-f_5^-f_6^-f_9^-}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_1-E_9+E_5+E_{11})(-E_9-E_{12}+E_5+E_6)} \\
\frac{+f_3^-f_4^-f_5^-f_9^-f_{12}^-f_2^+-f_3^-f_4^-f_5^-f_6^-f_9^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_9-E_{12}+E_5+E_6)} \\
\frac{+f_3^-f_4^-f_7^-f_{12}^-f_2^+f_{10}^+-f_3^-f_4^-f_6^-f_7^-f_2^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_2+E_{11})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_{12}^-f_{10}^+-f_1^-f_3^-f_4^-f_6^-f_7^-f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_3^-f_4^-f_6^-f_9^-f_2^+f_{10}^+-f_3^-f_4^-f_9^-f_{12}^-f_2^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_6+E_9+E_{10}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_9^-f_{12}^-f_{10}^+-f_1^-f_3^-f_4^-f_6^-f_9^-f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_9-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^-f_2^-f_7^-f_{12}^-f_4^+f_{11}^++f_1^-f_2^-f_3^-f_7^-f_{12}^-f_{11}^+-f_1^-f_2^-f_6^-f_7^-f_4^+f_{11}^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_9)(-E_1-E_7+E_5+E_{11})(-E_2-E_{11}+E_7+E_{10})(-E_{11}-E_{12}+E_1+E_6)} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_{12}^-f_{11}^+-f_1^-f_3^-f_4^-f_6^-f_7^-f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_1-E_7+E_5+E_{11})(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_{11}-E_{12}+E_1+E_6)} \\
\frac{+f_3^-f_4^-f_7^-f_{12}^-f_2^+f_{11}^+-f_3^-f_4^-f_6^-f_7^-f_2^+f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4-E_7+E_2+E_5+E_{11})(-E_2-E_{11}+E_7+E_{10})(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^-f_2^-f_3^-f_6^-f_9^-f_{11}^+-f_1^-f_2^-f_9^-f_{12}^-f_4^+f_{11}^+-f_1^-f_2^-f_3^-f_9^-f_{12}^-f_{11}^++f_1^-f_2^-f_6^-f_9^-f_4^+f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_9+E_7)(-E_1-E_9+E_5+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_9^-f_{12}^-f_{11}^+-f_1^-f_3^-f_4^-f_6^-f_9^-f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_1-E_9+E_5+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_{11}-E_{12}+E_1+E_6)} \\
\frac{+f_3^-f_4^-f_9^-f_{12}^-f_2^+f_{11}^+-f_3^-f_4^-f_6^-f_9^-f_2^+f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^-f_2^-f_3^-f_7^-f_{12}^-f_6^++f_1^-f_2^-f_7^-f_{12}^-f_4^+f_6^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_9)(-E_7-E_{12}+E_5+E_6)(-E_1-E_2-E_6+E_7+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_{12}^-f_6^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_7^-f_{12}^-f_2^+f_6^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_9^-f_{12}^-f_4^+f_6^++f_1^-f_2^-f_3^-f_9^-f_{12}^-f_6^+}{(-E_1-E_2+E_3+E_4)(-E_9+E_7)(-E_9-E_{12}+E_5+E_6)(-E_1-E_2-E_6+E_9+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_9^-f_{12}^-f_6^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_9-E_{12}+E_5+E_6)(-E_3-E_4-E_6+E_9+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_9^-f_{12}^-f_2^+f_6^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_9-E_{12}+E_5+E_6)(-E_3-E_4-E_6+E_9+E_{10}+E_{12})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_{11}^-+f_1^-f_2^-f_5^-f_6^-f_{11}^-f_4^+-f_1^-f_2^-f_5^-f_{11}^-f_{12}^-f_4^+-f_1^-f_2^-f_3^-f_5^-f_{11}^-f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_5-E_{11}+E_1+E_7)(-E_5-E_{11}+E_1+E_9)(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_6^-f_{11}^-f_4^+f_{10}^++f_1^-f_2^-f_3^-f_6^-f_{11}^-f_{10}^+-f_1^-f_2^-f_3^-f_{11}^-f_{12}^-f_{10}^+-f_1^-f_2^-f_{11}^-f_{12}^-f_4^+f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_2-E_{11}+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_{12}^++f_1^-f_2^-f_5^-f_6^-f_4^+f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_5-E_6+E_7+E_{12})(-E_5-E_6+E_9+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_6^-f_4^+f_{10}^+f_{12}^++f_1^-f_2^-f_3^-f_6^-f_{10}^+f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_6+E_7+E_{10}+E_{12})(-E_1-E_2-E_6+E_9+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_6^-f_{11}^-f_1^+-f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_5-E_{11}+E_1+E_7)(-E_5-E_{11}+E_1+E_9)(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_5^-f_6^-f_{11}^--f_2^-f_3^-f_4^-f_5^-f_{11}^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_5-E_{11}+E_3+E_4+E_7)(-E_2-E_5-E_{11}+E_3+E_4+E_9)(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_6^-f_{11}^-f_{10}^+-f_2^-f_3^-f_4^-f_{11}^-f_{12}^-f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_{11}+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_6^-f_{11}^-f_1^+f_{10}^+-f_3^-f_4^-f_{11}^-f_{12}^-f_1^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_6^-f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_5-E_6+E_7+E_{12})(-E_5-E_6+E_9+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_6^-f_2^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_5-E_6+E_7+E_{12})(-E_5-E_6+E_9+E_{12})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_6^-f_{10}^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_4-E_6+E_9+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_6^-f_2^+f_{10}^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_4-E_6+E_9+E_{10}+E_{12})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_1^-f_5^-f_7^-f_{10}^-f_{12}^-f_4^++f_1^-f_3^-f_5^-f_7^-f_{10}^-f_{12}^--f_1^-f_3^-f_5^-f_6^-f_7^-f_{10}^--f_1^-f_5^-f_6^-f_7^-f_{10}^-f_4^+}{(-E_7+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_1-E_7+E_5+E_{11})(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_1^-f_3^-f_5^-f_6^-f_9^-f_{10}^--f_1^-f_3^-f_5^-f_9^-f_{10}^-f_{12}^--f_1^-f_5^-f_9^-f_{10}^-f_{12}^-f_4^++f_1^-f_5^-f_6^-f_9^-f_{10}^-f_4^+}{(-E_9+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_1-E_9+E_5+E_{11})(-E_5-E_6+E_9+E_{12})} \\
\frac{+f_5^-f_6^-f_7^-f_{10}^-f_2^+f_4^+-f_3^-f_5^-f_7^-f_{10}^-f_{12}^-f_2^+-f_5^-f_7^-f_{10}^-f_{12}^-f_2^+f_4^++f_3^-f_5^-f_6^-f_7^-f_{10}^-f_2^+}{(-E_7+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_2+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_5^-f_9^-f_{10}^-f_{12}^-f_2^+f_4^++f_3^-f_5^-f_9^-f_{10}^-f_{12}^-f_2^+-f_5^-f_6^-f_9^-f_{10}^-f_2^+f_4^+-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_2^+}{(-E_9+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_5+E_6)} \\
\frac{+f_3^-f_4^-f_5^-f_6^-f_7^-f_{11}^--f_3^-f_4^-f_5^-f_7^-f_{11}^-f_{12}^-}{(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_5-E_{11}+E_1+E_7)(-E_3-E_4-E_7+E_2+E_5+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_5^-f_6^-f_7^-f_{10}^-f_{11}^-f_4^+-f_5^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_4^+-f_3^-f_5^-f_7^-f_{10}^-f_{11}^-f_{12}^-+f_3^-f_5^-f_6^-f_7^-f_{10}^-f_{11}^-}{(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{11}+E_1+E_7)(-E_7-E_{10}+E_2+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_9^-f_{11}^-f_{12}^--f_3^-f_4^-f_5^-f_6^-f_9^-f_{11}^-}{(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_5-E_{11}+E_1+E_9)(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_9-E_{12}+E_5+E_6)} \\
\frac{+f_3^-f_5^-f_6^-f_9^-f_{10}^-f_{11}^--f_3^-f_5^-f_9^-f_{10}^-f_{11}^-f_{12}^-+f_5^-f_6^-f_9^-f_{10}^-f_{11}^-f_4^+-f_5^-f_9^-f_{10}^-f_{11}^-f_{12}^-f_4^+}{(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{11}+E_1+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6+E_9+E_{12})} \\
\frac{+f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_{10}^+-f_3^-f_4^-f_6^-f_7^-f_{11}^-f_{10}^+}{(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_3^-f_4^-f_6^-f_9^-f_{11}^-f_{10}^+-f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_{10}^+}{(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4-E_6+E_9+E_{10}+E_{12})} \\
\frac{+f_2^-f_5^-f_{11}^-f_{12}^-f_4^+f_7^+-f_2^-f_5^-f_6^-f_{11}^-f_4^+f_7^++f_2^-f_3^-f_5^-f_{11}^-f_{12}^-f_7^+-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_7^+}{(-E_7+E_9)(-E_5-E_{11}+E_1+E_7)(-E_2-E_5-E_{11}+E_3+E_4+E_7)(-E_2-E_{11}+E_7+E_{10})(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_1^-f_7^-f_{10}^-f_{12}^-f_4^+f_{11}^+-f_1^-f_6^-f_7^-f_{10}^-f_4^+f_{11}^+-f_1^-f_3^-f_6^-f_7^-f_{10}^-f_{11}^++f_1^-f_3^-f_7^-f_{10}^-f_{12}^-f_{11}^+}{(-E_7+E_9)(-E_1-E_7+E_5+E_{11})(-E_7-E_{10}+E_2+E_{11})(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_{11}-E_{12}+E_1+E_6)}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|1,6\}\{9,10|V|11,8\}\{11,12|V|9,2\}\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_7^+ -f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_7^+ +f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_7^+ -f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_1-E_2+E_5+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- f_7^+ -f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ -f_1^- f_2^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- +f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_7-E_9-E_{10}+E_1+E_6+E_{11})(-E_1-E_2-E_6+E_7+E_{10}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- -f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_1-E_6-E_{11}+E_7+E_9+E_{10})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- -f_1^- f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- +f_1^- f_2^- f_5^- f_6^- f_8^- f_9^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_9^- +f_1^- f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ -f_1^- f_2^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_1+E_6)(-E_5-E_8+E_1+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_1-E_2+E_5+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- +f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_1^+ -f_1^- f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- -f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_5-E_8+E_1+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_8^+ +f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_8^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- -f_1^- f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ +f_1^- f_2^- f_6^- f_{10}^- f_{11}^- f_4^+ f_8^+ -f_1^- f_2^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_8^+ -f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_1-E_{10}+E_5+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- -f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_8^+ -f_1^- f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_8^+ +f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_1+E_6)(-E_1-E_{10}+E_5+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_7^+ f_9^+ +f_1^- f_2^- f_3^- f_6^- f_{11}^- f_7^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_1-E_{11}+E_5+E_9)(-E_1-E_6-E_{11}+E_7+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{11}^- f_7^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_1-E_{11}+E_5+E_9)(-E_1-E_6-E_{11}+E_7+E_9+E_{10})(-E_3-E_4-E_9+E_1+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+ -f_1^- f_2^- f_6^- f_8^- f_{11}^- f_4^+ f_9^+ -f_1^- f_2^- f_3^- f_6^- f_8^- f_{11}^- f_9^+ +f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_1+E_6)(-E_1-E_{11}+E_5+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_6^- f_8^- f_{11}^- f_9^+ -f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_1-E_{11}+E_5+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4-E_9+E_1+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_7^+ f_{12}^+ +f_1^- f_2^- f_3^- f_6^- f_{11}^- f_7^+ f_{12}^+ -f_1^- f_2^- f_6^- f_9^- f_4^+ f_7^+ f_{12}^+ -f_1^- f_2^- f_3^- f_6^- f_9^- f_7^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_1-E_2+E_5+E_{12})(-E_1-E_2-E_6+E_7+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)}\\
\frac{+f_1^- f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{12}^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{12}^+ +f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_6^- f_8^- f_9^- f_{12}^+ -f_1^- f_2^- f_6^- f_8^- f_9^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^+ -f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_{12}^+ +f_1^- f_2^- f_6^- f_8^- f_{11}^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_1-E_2+E_5+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)}\\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{11}^- f_7^+ f_{12}^+ -f_1^- f_3^- f_4^- f_6^- f_9^- f_7^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_1^+ f_{12}^+ +f_1^- f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{12}^+ -f_1^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{12}^+ -f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_1+E_6)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})(-E_3-E_4-E_9+E_1+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+ f_7^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- f_2^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_6-E_{11}+E_2+E_7+E_9+E_{10})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})}\\
\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- +f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- f_2^+ -f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- f_2^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_2-E_5-E_8+E_3+E_4+E_{10})(-E_2-E_5-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_2^+ f_8^+ +f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_8^+ -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_2^+ -f_3^- f_4^- f_6^- f_9^- f_{10}^- f_2^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_{10}+E_2+E_5+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_7^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_3-E_4-E_6-E_{11}+E_2+E_7+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_2^+ f_9^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_7^+ f_{12}^+ -f_3^- f_4^- f_6^- f_9^- f_2^+ f_7^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)}\\
\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_2^+ f_{12}^+ +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_{12}^+ -f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^+ -f_3^- f_4^- f_6^- f_8^- f_{11}^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_5^+ +f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_5^+ -f_1^- f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- -f_1^- f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ +f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- -f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_1-E_{10}+E_5+E_8)(-E_1-E_{11}+E_5+E_9)(-E_1-E_2+E_5+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_5^+ -f_1^- f_3^- f_4^- f_5^- f_6^- f_{10}^- f_{11}^- -f_1^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- +f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_{10}+E_5+E_6)(-E_1-E_{10}+E_5+E_8)(-E_1-E_{11}+E_5+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_2^+ f_5^+ -f_3^- f_4^- f_5^- f_6^- f_{10}^- f_{11}^- f_2^+ -f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_2^+ +f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_{10}+E_2+E_5+E_8)(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_9^+ +f_1^- f_2^- f_6^- f_{10}^- f_{11}^- f_4^+ f_9^+ -f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^- -f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{11}+E_5+E_9)(-E_1-E_6-E_{11}+E_7+E_9+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_9^+ -f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_{11}+E_5+E_9)(-E_1-E_6-E_{11}+E_7+E_9+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4-E_9+E_1+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^- f_2^+ -f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_2-E_7-E_9-E_{10}+E_3+E_4+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_2^- f_6^- f_{10}^- f_{11}^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- -f_1^- f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_{12}^+ -f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+ -f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^+ +f_1^- f_2^- f_6^- f_9^- f_{10}^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_1+E_2+E_6)(-E_{10}-E_{12}+E_2+E_8)(-E_{11}-E_{12}+E_2+E_9)}\\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ -f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_2^+ f_{12}^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_{12}^+ +f_3^- f_4^- f_6^- f_9^- f_{10}^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_{10}-E_{12}+E_2+E_8)(-E_{11}-E_{12}+E_2+E_9)}\\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_{12}^+ -f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- +f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ -f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_1-E_{10}-E_{12}+E_3+E_4+E_8)(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)}\\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_6^+ -f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- f_9^-}{(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_6^+ +f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ -f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ f_6^+ -f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- f_6^+}{(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_5-E_6+E_7+E_{10})(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_2-E_7-E_8+E_5+E_6+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})}\\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ +f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ f_6^+ -f_2^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+ -f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_7-E_{10}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})}\\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+ +f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ f_9^+}{(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4-E_6-E_9+E_7+E_8+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_9^- f_{12}^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_{12}^+}{(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_4-E_6-E_9+E_7+E_8+E_{11}+E_{12})}\\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ f_{12}^+ -f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+ f_{12}^+ -f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+ +f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ f_{12}^+}{(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_2-E_7-E_8+E_5+E_6+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- f_7^+ +f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_7^+ -f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_7^+ -f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_7^+}{(-E_1-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_9+E_1+E_{11})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)}\\
\frac{+f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ +f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ -f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- f_{12}^- -f_5^- f_6^- f_7^- f_8^- f_9^- f_{12}^- f_4^+}{(-E_7-E_8+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_5-E_{12}+E_3+E_4)(-E_5-E_6-E_{12}+E_2+E_7+E_8)}\\
\frac{+f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ -f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ -f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_1-E_6+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_7-E_9-E_{10}+E_1+E_6+E_{11})(-E_7-E_{10}-E_{12}+E_1+E_2+E_6)(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)}\\
\frac{+f_3^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^- f_6^+ -f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_6^+ +f_7^- f_8^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ -f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_7-E_8+E_1+E_6)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_{10}-E_{12}+E_2+E_8)}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^- -f_5^- f_7^- f_8^- f_9^- f_{12}^- f_1^+ f_4^+ -f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- +f_1^- f_5^- f_6^- f_8^- f_9^- f_{12}^- f_4^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- -f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^- f_1^+ -f_1^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_6+E_7+E_8)(-E_5-E_8+E_1+E_{10})(-E_5-E_9+E_1+E_{11})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)}\\
\frac{+f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+ +f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_8^+ +f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ +f_1^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ -f_1^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ -f_1^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+ -f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_8^+ -f_1^- f_3^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_8^+}{(-E_7-E_8+E_1+E_6)(-E_1-E_{10}+E_5+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_{10}-E_{12}+E_2+E_8)(-E_1-E_{10}-E_{12}+E_3+E_4+E_8)}\\
\frac{+f_1^- f_3^- f_6^- f_{11}^- f_{12}^- f_7^+ f_9^+ +f_1^- f_6^- f_{11}^- f_{12}^- f_4^+ f_7^+ f_9^+}{(-E_1-E_6+E_7+E_8)(-E_1-E_{11}+E_5+E_9)(-E_1-E_6-E_{11}+E_7+E_9+E_{10})(-E_{11}-E_{12}+E_2+E_9)(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)}
\end{array}\right.$$

$$\begin{pmatrix}
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_8^- +f_1^- f_2^- f_5^- f_6^- f_7^- f_8^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_7^+ -f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- -f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_2+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ +f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_5^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_5^+ -f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_5^+ -f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_2+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{10}^- -f_1^- f_2^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ -f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^- +f_1^- f_2^- f_6^- f_7^- f_8^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_2+E_{11})(-E_1-E_2-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{10}^- -f_2^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_2+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_9^- +f_1^- f_2^- f_5^- f_6^- f_8^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_5-E_6+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_5-E_6+E_2+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_5^+ f_8^+ +f_1^- f_2^- f_3^- f_9^- f_{10}^- f_5^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- f_5^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_1-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4-E_6-E_8+E_2+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{11}^- f_5^+ f_7^+ +f_1^- f_2^- f_9^- f_{11}^- f_4^+ f_5^+ f_7^+ -f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_5^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_5+E_6)(-E_2-E_{11}+E_7+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{11}^- f_5^+ f_7^+ -f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_5+E_6)(-E_2-E_{11}+E_7+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ -f_1^- f_2^- f_6^- f_9^- f_{11}^- f_4^+ f_7^+ -f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^- f_7^+ +f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_2-E_{11}+E_5+E_6)(-E_2-E_{11}+E_7+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_9^- f_{11}^- f_7^+ -f_2^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_5+E_6)(-E_2-E_{11}+E_7+E_{10})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{11}^- f_5^+ +f_1^- f_2^- f_8^- f_9^- f_{11}^- f_4^+ f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_8^- f_9^- f_{11}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_8^- f_9^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_6^- f_8^- f_9^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- +f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^- -f_1^- f_2^- f_7^- f_8^- f_{10}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_2+E_{11})(-E_1-E_2+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_1+E_2+E_6)} \\
\frac{+f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ f_7^+ +f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_7^+ -f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_7+E_{10})(-E_1-E_2+E_5+E_{12})(-E_{11}-E_{12}+E_1+E_6)} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- -f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_2+E_{11})(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_7^+ -f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_7+E_{10})(-E_3-E_4+E_5+E_{12})(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_8^+ +f_1^- f_2^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_1-E_2+E_5+E_{12})(-E_9-E_{10}-E_{12}+E_1+E_6+E_8)} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{11}^- f_{12}^- +f_1^- f_2^- f_8^- f_9^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})(-E_{11}-E_{12}+E_1+E_6)} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_5+E_{12})(-E_2-E_9-E_{10}-E_{12}+E_3+E_4+E_6+E_8)} \\
\frac{+f_2^- f_3^- f_4^- f_8^- f_9^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{12}^+ +f_1^- f_2^- f_6^- f_7^- f_8^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_6^- f_9^- f_7^+ f_{12}^+ -f_1^- f_2^- f_6^- f_9^- f_4^+ f_7^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{12})(-E_1-E_2-E_6+E_7+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_8^- f_9^- f_{12}^+ +f_1^- f_2^- f_6^- f_8^- f_9^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{12})(-E_1-E_6-E_8+E_9+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{12}^+ -f_2^- f_3^- f_4^- f_6^- f_9^- f_7^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6-E_8+E_2+E_9+E_{10}+E_{12})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- f_1^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_1^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_5-E_6+E_7+E_{10})(-E_1-E_5-E_6+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ f_5^+ -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{10}^- f_1^+ -f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_7-E_{10}+E_5+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_5-E_6-E_8+E_3+E_4+E_9+E_{10})(-E_1-E_5-E_6+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_5^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_9-E_{10}+E_1+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_9-E_{10}+E_1+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_1-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_1^+ f_5^+ f_7^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_5+E_6)(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{11}^- f_1^+ f_7^+ -f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_5+E_6)(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{11}^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_1^+ -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_1^+ f_7^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_1+E_6)} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_5+E_{12})(-E_9-E_{10}-E_{12}+E_1+E_6+E_8)} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{11}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_1+E_6)} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_1^+ f_{12}^+ -f_3^- f_4^- f_6^- f_9^- f_1^+ f_7^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_1-E_6-E_8+E_9+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})}
\end{pmatrix}$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|1,8\}\{7,8|V|7,10\}\{9,10|V|11,2\}\{11,12|V|9,6\}f_7^- \left(\begin{array}{c}
\frac{+f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- - f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6+E_1+E_{10})(-E_1-E_2-E_{11}+E_5+E_6+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- - f_1^- f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_5-E_6+E_1+E_{10})(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_8^- f_{11}^- f_5^+ - f_1^- f_2^- f_8^- f_9^- f_4^+ f_5^+ - f_1^- f_2^- f_3^- f_8^- f_9^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_2-E_{11}+E_8+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_8^- f_{11}^- - f_1^- f_2^- f_6^- f_8^- f_9^- f_4^+ - f_1^- f_2^- f_3^- f_6^- f_8^- f_9^- + f_1^- f_2^- f_6^- f_8^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_2-E_{11}+E_8+E_9)(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_5^+ - f_1^- f_3^- f_4^- f_8^- f_{11}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_1-E_8-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_8^- f_9^- - f_1^- f_3^- f_4^- f_6^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_1-E_8-E_9+E_3+E_4+E_{11})(-E_3-E_4-E_6+E_1+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_2-E_5-E_6+E_3+E_4+E_{10})(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_5^+ - f_3^- f_4^- f_8^- f_9^- f_2^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_8+E_{10})(-E_2-E_{11}+E_8+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_2^+ - f_3^- f_4^- f_6^- f_8^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_8+E_{10})(-E_8-E_9+E_2+E_{11})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_5^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_5^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_5^+ + f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- + f_1^- f_2^- f_6^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_6^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_6^- f_{10}^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_5^+ - f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^- - f_1^- f_3^- f_4^- f_6^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_6+E_1+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_5^+ - f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_{10}+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^- f_2^+ - f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_{10}+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{12}^- + f_1^- f_2^- f_8^- f_9^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_8^- f_{11}^- f_{12}^- - f_1^- f_2^- f_8^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_8+E_{10})(-E_8-E_9+E_2+E_{11})(-E_1-E_2+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_2^+ - f_3^- f_4^- f_8^- f_9^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_8+E_{10})(-E_2-E_{11}+E_8+E_9)(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_{12}^- - f_1^- f_3^- f_4^- f_8^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_8+E_{10})(-E_1-E_8-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})(-E_1-E_8-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_2^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- - f_1^- f_2^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_{10}+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})(-E_{10}-E_{12}+E_2+E_6)} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_2^+ - f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_{10}+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{10}-E_{12}+E_2+E_6)} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_{10}+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_1-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^- f_2^- f_3^- f_{11}^- f_5^+ f_9^+ + f_1^- f_2^- f_{11}^- f_4^+ f_5^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_{11}^- f_9^+ + f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_2^+ f_5^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{11}^- f_5^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_1+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_1+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_9^+ + f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_9^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_{11}+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_{11}+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_{11}^- f_{12}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_1+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_6^- f_9^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_6^- f_9^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_2-E_6+E_8+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_6^- f_9^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_2-E_6+E_8+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_{12}^+ - f_1^- f_3^- f_4^- f_6^- f_{11}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_1+E_8+E_{12})(-E_3-E_4-E_6+E_1+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_8+E_{10})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ + f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ - f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+ - f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+}{(-E_5-E_6+E_1+E_8)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_8+E_{10})(-E_8-E_9+E_2+E_{11})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_4^+ f_{11}^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6+E_1+E_{10})(-E_5-E_6-E_9+E_1+E_2+E_{11})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- - f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_5-E_6+E_1+E_8)(-E_5-E_6+E_1+E_{10})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_5^- f_6^- f_9^- f_4^+ f_8^+ f_{11}^+ + f_3^- f_5^- f_6^- f_9^- f_8^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_8+E_{10})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_8-E_9+E_2+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_8^- f_9^- f_{11}^+ + f_1^- f_6^- f_8^- f_9^- f_4^+ f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_8-E_9+E_2+E_{11})(-E_1-E_8-E_9+E_3+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_8^- f_9^- f_5^+ f_{11}^+ + f_1^- f_8^- f_9^- f_4^+ f_5^+ f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_8-E_9+E_2+E_{11})(-E_1-E_8-E_9+E_3+E_4+E_{11})(-E_1-E_8-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_8^- f_9^- f_{12}^- f_4^+ + f_1^- f_3^- f_5^- f_8^- f_9^- f_{12}^- - f_1^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^- - f_1^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_1-E_8-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+ - f_3^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ - f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+ + f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_8+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_8-E_{12}+E_2+E_6)(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_1^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ + f_1^- f_3^- f_8^- f_9^- f_{12}^- f_6^+ - f_1^- f_3^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_8-E_{12}+E_2+E_6)(-E_1-E_8-E_{12}+E_3+E_4+E_6)(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^+}{(-E_5-E_6+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_{10}+E_8)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_{10}^+ - f_2^- f_5^- f_6^- f_9^- f_4^+ f_{10}^+ + f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{10}^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^+}{(-E_5-E_6+E_1+E_{10})(-E_2-E_5-E_6+E_3+E_4+E_{10})(-E_{10}+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_4^+ f_{10}^+ f_{11}^+ + f_3^- f_5^- f_6^- f_9^- f_{10}^+ f_{11}^+}{(-E_5-E_6+E_1+E_{10})(-E_{10}+E_8)(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_9-E_{10}+E_2+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{11}^+ + f_1^- f_6^- f_9^- f_{10}^- f_4^+ f_{11}^+}{(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_9^- f_{10}^- f_5^+ f_{11}^+ + f_1^- f_9^- f_{10}^- f_4^+ f_5^+ f_{11}^+}{(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_1-E_9-E_{10}+E_5+E_{11}+E_{12})}
\end{array} \right.$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,2\}\{7,8|V|1,10\}\{9,10|V|11,8\}\{11,12|V|9,6\}\begin{pmatrix}
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_8^-f_9^-+f_1^-f_2^-f_5^-f_6^-f_8^-f_9^-f_4^++f_1^-f_2^-f_5^-f_6^-f_{10}^-f_{11}^-f_4^+-f_1^-f_2^-f_5^-f_6^-f_9^-f_{10}^-f_4^+-f_1^-f_2^-f_3^-f_5^-f_6^-f_9^-f_{10}^--f_1^-f_2^-f_5^-f_6^-f_8^-f_{11}^-f_4^++f_1^-f_2^-f_3^-f_5^-f_6^-f_{10}^-f_{11}^--f_1^-f_2^-f_3^-f_5^-f_6^-f_8^-f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6-E_8+E_1+E_2+E_{10})(-E_5-E_6-E_9+E_1+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_5^-f_6^-f_8^-f_9^-+f_2^-f_3^-f_4^-f_5^-f_6^-f_{10}^-f_{11}^--f_2^-f_3^-f_4^-f_5^-f_6^-f_9^-f_{10}^--f_2^-f_3^-f_4^-f_5^-f_6^-f_8^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_5-E_6-E_8+E_3+E_4+E_{10})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^-f_2^-f_7^-f_8^-f_9^-f_4^+f_5^++f_1^-f_2^-f_3^-f_7^-f_{10}^-f_{11}^-f_5^++f_1^-f_2^-f_7^-f_{10}^-f_{11}^-f_4^+f_5^++f_1^-f_2^-f_3^-f_7^-f_8^-f_9^-f_5^+-f_1^-f_2^-f_3^-f_7^-f_8^-f_{11}^-f_5^+-f_1^-f_2^-f_7^-f_9^-f_{10}^-f_4^+f_5^+-f_1^-f_2^-f_7^-f_8^-f_{11}^-f_4^+f_5^+-f_1^-f_2^-f_3^-f_7^-f_9^-f_{10}^-f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_7-E_9+E_1+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^-f_2^-f_6^-f_7^-f_8^-f_{11}^-f_4^+-f_1^-f_2^-f_6^-f_7^-f_8^-f_9^-f_4^++f_1^-f_2^-f_3^-f_6^-f_7^-f_8^-f_{11}^--f_1^-f_2^-f_3^-f_6^-f_7^-f_{10}^-f_{11}^--f_1^-f_2^-f_6^-f_7^-f_{10}^-f_{11}^-f_4^++f_1^-f_2^-f_6^-f_7^-f_9^-f_{10}^-f_4^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_8^-f_9^-+f_1^-f_2^-f_3^-f_6^-f_7^-f_9^-f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_1-E_{11}+E_7+E_9)(-E_1-E_6+E_7+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_5^++f_2^-f_3^-f_4^-f_7^-f_8^-f_9^-f_5^+-f_2^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_5^+-f_2^-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_3-E_4-E_{11}+E_2+E_7+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_6^-f_7^-f_{10}^-f_{11}^--f_2^-f_3^-f_4^-f_6^-f_7^-f_9^-f_{10}^-+f_2^-f_3^-f_4^-f_6^-f_7^-f_8^-f_9^--f_2^-f_3^-f_4^-f_6^-f_7^-f_8^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_3-E_4-E_{11}+E_2+E_7+E_9)(-E_3-E_4-E_6+E_2+E_7+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_6^-f_8^-f_9^-f_1^++f_3^-f_4^-f_5^-f_6^-f_{10}^-f_{11}^-f_1^+-f_3^-f_4^-f_5^-f_6^-f_9^-f_{10}^-f_1^+-f_3^-f_4^-f_5^-f_6^-f_8^-f_{11}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_5-E_6-E_8+E_3+E_4+E_{10})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_1^+f_5^++f_3^-f_4^-f_7^-f_8^-f_9^-f_1^+f_5^+-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_1^+f_5^+-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_1^+f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_1-E_{11}+E_7+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^-f_4^-f_6^-f_7^-f_{10}^-f_{11}^-f_1^+-f_3^-f_4^-f_6^-f_7^-f_9^-f_{10}^-f_1^++f_3^-f_4^-f_6^-f_7^-f_8^-f_9^-f_1^+-f_3^-f_4^-f_6^-f_7^-f_8^-f_{11}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_1-E_{11}+E_7+E_9)(-E_1-E_6+E_7+E_{12})} \\
\frac{+f_1^-f_2^-f_{10}^-f_{11}^-f_4^+f_5^+f_8^+-f_1^-f_2^-f_3^-f_9^-f_{10}^-f_5^+f_8^++f_1^-f_2^-f_3^-f_{10}^-f_{11}^-f_5^+f_8^+-f_1^-f_2^-f_9^-f_{10}^-f_4^+f_5^+f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_{10}+E_5+E_6+E_8)(-E_1-E_{10}+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^-f_2^-f_6^-f_9^-f_{10}^-f_4^+f_8^+-f_1^-f_2^-f_3^-f_6^-f_{10}^-f_{11}^-f_8^++f_1^-f_2^-f_3^-f_6^-f_9^-f_{10}^-f_8^+-f_1^-f_2^-f_6^-f_{10}^-f_{11}^-f_4^+f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_{10}+E_5+E_6+E_8)(-E_1-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_3^-f_4^-f_{10}^-f_{11}^-f_1^+f_5^+f_8^+-f_3^-f_4^-f_9^-f_{10}^-f_1^+f_5^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_5+E_6+E_8)(-E_1-E_{10}+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^-f_4^-f_6^-f_9^-f_{10}^-f_1^+f_8^+-f_3^-f_4^-f_6^-f_{10}^-f_{11}^-f_1^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_5+E_6+E_8)(-E_1-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_{10}^-f_{11}^-f_5^+f_8^+-f_2^-f_3^-f_4^-f_9^-f_{10}^-f_5^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_5+E_6+E_8)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_6^-f_{10}^-f_{11}^-f_8^+-f_2^-f_3^-f_4^-f_6^-f_9^-f_{10}^-f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_5+E_6+E_8)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_7^-f_{10}^-f_{11}^-f_{12}^-+f_1^-f_2^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_4^++f_1^-f_2^-f_3^-f_7^-f_8^-f_9^-f_{12}^-+f_1^-f_2^-f_7^-f_8^-f_9^-f_{12}^-f_4^+-f_1^-f_2^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^+-f_1^-f_2^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+-f_1^-f_2^-f_3^-f_7^-f_8^-f_{11}^-f_{12}^--f_1^-f_2^-f_3^-f_7^-f_9^-f_{10}^-f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_7+E_8)(-E_1-E_{11}+E_7+E_9)(-E_1-E_2+E_5+E_{12})(-E_7-E_{12}+E_1+E_6)} \\
\frac{+f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_1^++f_3^-f_4^-f_7^-f_8^-f_9^-f_{12}^-f_1^+-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-f_1^+-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_7+E_8)(-E_1-E_{11}+E_7+E_9)(-E_3-E_4+E_5+E_{12})(-E_7-E_{12}+E_1+E_6)} \\
\frac{+f_1^-f_2^-f_{10}^-f_{11}^-f_{12}^-f_4^+f_8^++f_1^-f_2^-f_3^-f_{10}^-f_{11}^-f_{12}^-f_8^+-f_1^-f_2^-f_9^-f_{10}^-f_{12}^-f_4^+f_8^+-f_1^-f_2^-f_3^-f_9^-f_{10}^-f_{12}^-f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_3^-f_4^-f_{10}^-f_{11}^-f_{12}^-f_1^+f_8^+-f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_1^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_{12}^-+f_2^-f_3^-f_4^-f_7^-f_8^-f_9^-f_{12}^--f_2^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^--f_2^-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_3-E_4-E_{11}+E_2+E_7+E_9)(-E_3-E_4+E_5+E_{12})(-E_2-E_7-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_2^-f_3^-f_4^-f_{10}^-f_{11}^-f_{12}^-f_8^+-f_2^-f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_1^-f_2^-f_8^-f_{11}^-f_4^+f_5^+f_9^++f_1^-f_2^-f_3^-f_8^-f_{11}^-f_5^+f_9^+-f_1^-f_2^-f_{10}^-f_{11}^-f_4^+f_5^+f_9^+-f_1^-f_2^-f_3^-f_{10}^-f_{11}^-f_5^+f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_{11}+E_5+E_6+E_9)(-E_1-E_{11}+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^-f_2^-f_6^-f_8^-f_{11}^-f_4^+f_9^+-f_1^-f_2^-f_3^-f_6^-f_{10}^-f_{11}^-f_9^++f_1^-f_2^-f_3^-f_6^-f_8^-f_{11}^-f_9^+-f_1^-f_2^-f_6^-f_{10}^-f_{11}^-f_4^+f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_{11}+E_5+E_6+E_9)(-E_1-E_{11}+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_8^-f_{11}^-f_1^+f_5^+f_9^+-f_3^-f_4^-f_{10}^-f_{11}^-f_1^+f_5^+f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_1-E_{11}+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^-f_4^-f_6^-f_8^-f_{11}^-f_1^+f_9^+-f_3^-f_4^-f_6^-f_{10}^-f_{11}^-f_1^+f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_1-E_{11}+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_8^-f_{11}^-f_5^+f_9^+-f_2^-f_3^-f_4^-f_{10}^-f_{11}^-f_5^+f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_2+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_6^-f_8^-f_{11}^-f_9^+-f_2^-f_3^-f_4^-f_6^-f_{10}^-f_{11}^-f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_2+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_8^-f_{11}^-f_{12}^-f_9^++f_1^-f_2^-f_8^-f_{11}^-f_{12}^-f_4^+f_9^+-f_1^-f_2^-f_3^-f_{10}^-f_{11}^-f_{12}^-f_9^+-f_1^-f_2^-f_{10}^-f_{11}^-f_{12}^-f_4^+f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{11}+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^-f_4^-f_8^-f_{11}^-f_{12}^-f_1^+f_9^+-f_3^-f_4^-f_{10}^-f_{11}^-f_{12}^-f_1^+f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{11}+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_2^-f_3^-f_4^-f_{10}^-f_{11}^-f_{12}^-f_9^+-f_2^-f_3^-f_4^-f_8^-f_{11}^-f_{12}^-f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_2+E_7+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_1^-f_2^-f_3^-f_6^-f_8^-f_9^-f_{12}^++f_1^-f_2^-f_6^-f_8^-f_9^-f_4^+f_{12}^++f_1^-f_2^-f_6^-f_{10}^-f_{11}^-f_4^+f_{12}^++f_1^-f_2^-f_3^-f_6^-f_{10}^-f_{11}^-f_{12}^+-f_1^-f_2^-f_6^-f_9^-f_{10}^-f_4^+f_{12}^+-f_1^-f_2^-f_3^-f_6^-f_9^-f_{10}^-f_{12}^+-f_1^-f_2^-f_3^-f_6^-f_8^-f_{11}^-f_{12}^+-f_1^-f_2^-f_6^-f_8^-f_{11}^-f_4^+f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_1-E_6+E_7+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_6^-f_8^-f_9^-f_1^+f_{12}^++f_3^-f_4^-f_6^-f_{10}^-f_{11}^-f_1^+f_{12}^+-f_3^-f_4^-f_6^-f_9^-f_{10}^-f_1^+f_{12}^+-f_3^-f_4^-f_6^-f_8^-f_{11}^-f_1^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_1-E_6+E_7+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_6^-f_{10}^-f_{11}^-f_{12}^++f_2^-f_3^-f_4^-f_6^-f_8^-f_9^-f_{12}^+-f_2^-f_3^-f_4^-f_6^-f_8^-f_{11}^-f_{12}^+-f_2^-f_3^-f_4^-f_6^-f_9^-f_{10}^-f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_2+E_7+E_{12})(-E_{10}-E_{12}+E_6+E_8)(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^-f_4^-f_5^-f_6^-f_8^-f_9^-f_7^+-f_3^-f_4^-f_5^-f_6^-f_9^-f_{10}^-f_7^+-f_3^-f_4^-f_5^-f_6^-f_8^-f_{11}^-f_7^++f_3^-f_4^-f_5^-f_6^-f_{10}^-f_{11}^-f_7^+}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_5-E_6-E_8+E_3+E_4+E_{10})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_7^+-f_1^-f_3^-f_5^-f_6^-f_8^-f_9^-f_7^++f_1^-f_5^-f_6^-f_8^-f_{11}^-f_4^+f_7^+-f_1^-f_5^-f_6^-f_8^-f_9^-f_4^+f_7^+-f_1^-f_5^-f_6^-f_{10}^-f_{11}^-f_4^+f_7^++f_1^-f_5^-f_6^-f_9^-f_{10}^-f_4^+f_7^+-f_1^-f_3^-f_5^-f_6^-f_{10}^-f_{11}^-f_7^++f_1^-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_7^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_1-E_{10}+E_7+E_8)(-E_7-E_9+E_1+E_{11})(-E_1-E_6+E_7+E_{12})} \\
\frac{+f_2^-f_3^-f_5^-f_6^-f_8^-f_9^-f_{10}^++f_2^-f_5^-f_6^-f_8^-f_9^-f_4^+f_{10}^+-f_2^-f_5^-f_6^-f_8^-f_{11}^-f_4^+f_{10}^+-f_2^-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_{10}^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6-E_8+E_1+E_2+E_{10})(-E_5-E_6-E_8+E_3+E_4+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_5^-f_6^-f_8^-f_9^-f_4^+f_7^+f_{10}^+-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_7^+f_{10}^++f_3^-f_5^-f_6^-f_8^-f_9^-f_7^+f_{10}^+-f_5^-f_6^-f_8^-f_{11}^-f_4^+f_7^+f_{10}^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6-E_8+E_3+E_4+E_{10})(-E_7-E_8+E_1+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_2^-f_6^-f_7^-f_8^-f_{11}^-f_4^+f_{10}^+-f_2^-f_3^-f_6^-f_7^-f_8^-f_9^-f_{10}^++f_2^-f_3^-f_6^-f_7^-f_8^-f_{11}^-f_{10}^+-f_2^-f_6^-f_7^-f_8^-f_9^-f_4^+f_{10}^+}{(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_2^-f_7^-f_8^-f_9^-f_4^+f_5^+f_{10}^++f_2^-f_3^-f_7^-f_8^-f_9^-f_5^+f_{10}^+-f_2^-f_3^-f_7^-f_8^-f_{11}^-f_5^+f_{10}^+-f_2^-f_7^-f_8^-f_{11}^-f_4^+f_5^+f_{10}^+}{(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_7-E_8+E_5+E_{10}+E_{12})} \\
\frac{+f_2^-f_5^-f_6^-f_9^-f_{10}^-f_4^+f_{11}^+-f_2^-f_5^-f_6^-f_8^-f_9^-f_4^+f_{11}^+-f_2^-f_3^-f_5^-f_6^-f_8^-f_9^-f_{11}^++f_2^-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_{11}^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6-E_9+E_1+E_2+E_{11})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_5^-f_6^-f_9^-f_{10}^-f_4^+f_7^+f_{11}^+-f_3^-f_5^-f_6^-f_8^-f_9^-f_7^+f_{11}^+-f_5^-f_6^-f_8^-f_9^-f_4^+f_7^+f_{11}^++f_3^-f_5^-f_6^-f_9^-f_{10}^-f_7^+f_{11}^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_7-E_9+E_1+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_6^-f_7^-f_8^-f_9^-f_{11}^+-f_2^-f_6^-f_7^-f_9^-f_{10}^-f_4^+f_{11}^++f_2^-f_6^-f_7^-f_8^-f_9^-f_4^+f_{11}^+-f_2^-f_3^-f_6^-f_7^-f_9^-f_{10}^-f_{11}^+}{(-E_2-E_7+E_5+E_6)(-E_7-E_9+E_1+E_{11})(-E_2-E_7-E_9+E_3+E_4+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_2^-f_7^-f_8^-f_9^-f_4^+f_5^+f_{11}^+-f_2^-f_7^-f_9^-f_{10}^-f_4^+f_5^+f_{11}^+-f_2^-f_3^-f_7^-f_9^-f_{10}^-f_5^+f_{11}^++f_2^-f_3^-f_7^-f_8^-f_9^-f_5^+f_{11}^+}{(-E_2-E_7+E_5+E_6)(-E_7-E_9+E_1+E_{11})(-E_2-E_7-E_9+E_3+E_4+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_2-E_7-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_2^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^-f_4^++f_2^-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_{12}^--f_2^-f_3^-f_5^-f_6^-f_{10}^-f_{11}^-f_{12}^-+f_2^-f_5^-f_6^-f_8^-f_{11}^-f_{12}^-f_4^+-f_2^-f_3^-f_5^-f_6^-f_8^-f_9^-f_{12}^-+f_2^-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^--f_2^-f_5^-f_6^-f_8^-f_9^-f_{12}^-f_4^+-f_2^-f_5^-f_6^-f_{10}^-f_{11}^-f_{12}^-f_4^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{10}-E_{12}+E_6+E_8)(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_5^-f_7^-f_8^-f_{11}^-f_{12}^-+f_2^-f_5^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^++f_2^-f_3^-f_5^-f_7^-f_9^-f_{10}^-f_{12}^-+f_2^-f_5^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+-f_2^-f_5^-f_7^-f_8^-f_9^-f_{12}^-f_4^+-f_2^-f_3^-f_5^-f_7^-f_8^-f_9^-f_{12}^--f_2^-f_5^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_4^+-f_2^-f_3^-f_5^-f_7^-f_{10}^-f_{11}^-f_{12}^-}{(-E_2-E_7+E_5+E_6)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_2-E_7-E_8+E_5+E_{10}+E_{12})(-E_5-E_{11}-E_{12}+E_2+E_7+E_9)} \\
\frac{+f_5^-f_6^-f_{10}^-f_{11}^-f_{12}^-f_4^+f_7^+-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_{12}^-f_7^++f_3^-f_5^-f_6^-f_{10}^-f_{11}^-f_{12}^-f_7^++f_5^-f_6^-f_8^-f_9^-f_{12}^-f_4^+f_7^+-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^-f_7^+-f_5^-f_6^-f_9^-f_{10}^-f_{12}^-f_4^+f_7^++f_3^-f_5^-f_6^-f_8^-f_9^-f_{12}^-f_7^+-f_5^-f_6^-f_8^-f_{11}^-f_{12}^-f_4^+f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_{12}+E_3+E_4)(-E_7-E_{12}+E_1+E_6)(-E_{10}-E_{12}+E_6+E_8)(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_2^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+f_6^++f_2^-f_3^-f_7^-f_8^-f_{11}^-f_{12}^-f_6^+-f_2^-f_7^-f_8^-f_9^-f_{12}^-f_4^+f_6^+-f_2^-f_3^-f_7^-f_8^-f_9^-f_{12}^-f_6^++f_2^-f_3^-f_7^-f_9^-f_{10}^-f_{12}^-f_6^++f_2^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^+f_6^+-f_2^-f_3^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_6^+-f_2^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_4^+f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7-E_{12}+E_1+E_6)(-E_2-E_7-E_{12}+E_3+E_4+E_6)(-E_{10}-E_{12}+E_6+E_8)(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^-f_5^-f_6^-f_8^-f_{11}^-f_1^+f_{10}^++f_5^-f_6^-f_8^-f_{11}^-f_1^+f_4^+f_{10}^+-f_5^-f_6^-f_8^-f_9^-f_1^+f_4^+f_{10}^+-f_3^-f_5^-f_6^-f_8^-f_9^-f_1^+f_{10}^+}{(-E_5-E_6-E_8+E_1+E_2+E_{10})(-E_5-E_6-E_8+E_3+E_4+E_{10})(-E_1-E_{10}+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_6-E_8+E_{10}+E_{12})}
\end{pmatrix}$$

$$
-\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,2\}\{7,8|V|9,6\}\{9,10|V|11,8\}\{11,12|V|1,10\}\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_5^+ +f_1^- f_2^- f_6^- f_9^- f_{11}^- f_4^+ f_5^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+ -f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- +f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^- f_5^+ -f_1^- f_2^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ +f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_5^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ -f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- -f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ -f_1^- f_2^- f_7^- f_9^- f_{11}^- f_4^+ f_5^+ -f_1^- f_2^- f_3^- f_7^- f_9^- f_{11}^- f_5^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- -f_1^- f_2^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_{10}^- +f_1^- f_2^- f_5^- f_6^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_2+E_9)(-E_2-E_{11}+E_5+E_{10})(-E_1-E_2+E_5+E_{12})}\\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+ +f_2^- f_3^- f_4^- f_6^- f_9^- f_{11}^- f_5^+ -f_2^- f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- -f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- +f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_5^+ -f_2^- f_3^- f_4^- f_7^- f_9^- f_{11}^- f_5^+ +f_3^- f_4^- f_5^- f_6^- f_8^- f_{10}^- f_2^+ -f_2^- f_3^- f_4^- f_5^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_2+E_9)(-E_2-E_{11}+E_5+E_{10})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+ -f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^- +f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^- f_7^+ -f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^- +f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ -f_1^- f_2^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ +f_1^- f_2^- f_6^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_6+E_{11})(-E_1-E_6+E_7+E_{12})}\\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- +f_2^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- -f_2^- f_3^- f_4^- f_6^- f_9^- f_{11}^- f_7^+ -f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_6-E_{11}+E_7+E_{10})(-E_3-E_4-E_6+E_2+}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_1^+ f_5^+ +f_3^- f_4^- f_6^- f_9^- f_{11}^- f_1^+ f_5^+ -f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- f_1^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- f_1^+ +f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ f_5^+ -f_3^- f_4^- f_7^- f_9^- f_{11}^- f_1^+ f_5^+ +f_1^- f_3^- f_4^- f_5^- f_6^- f_8^- f_{10}^- -f_3^- f_4^- f_5^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_5-E_8+E_3+E_4+E_9)(-E_3-E_4-E_{11}+E_1+E_5+E_{10})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_1^+ f_6^+ +f_3^- f_4^- f_6^- f_9^- f_{11}^- f_1^+ f_7^+ -f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_1^+ -f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_6+E_{11})(-E_1-E_6+}\\
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ -f_1^- f_2^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+ +f_1^- f_2^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ -f_1^- f_2^- f_3^- f_6^- f_8^- f_9^- f_{11}^- -f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- -f_1^- f_2^- f_6^- f_8^- f_9^- f_{11}^- f_4^+ +f_1^- f_2^- f_7^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_1-E_8+E_9+E_{12})}\\
\frac{+f_2^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{11}^- -f_2^- f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+ +f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- -f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4-E_8+E_2+}\\
\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_{11}^- f_1^+ -f_3^- f_4^- f_6^- f_9^- f_{10}^- f_1^+ f_8^+ +f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_1^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_1^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_8+}\\
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{11}^- -f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- +f_1^- f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_2^- f_6^- f_8^- f_{11}^- f_4^+ f_{10}^+ -f_1^- f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{10}^+ +f_1^- f_2^- f_6^- f_9^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_2^- f_7^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_{11}+E_5+E_{10})(-E_6-E_{11}+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^- f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{10}^+ -f_2^- f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{11}^- -f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- +f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_{11}+E_5+E_{10})(-E_6-E_{11}+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4-E_{10}+E_2+E}\\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ f_{11}^+ -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_1^+ +f_3^- f_4^- f_6^- f_8^- f_{11}^- f_1^+ f_{10}^+ -f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_1+E_5+E_{10})(-E_7-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_1-E_{10}+E}\\
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ +f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- -f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_2^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- +f_1^- f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{12}^+ -f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- -f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ +f_1^- f_2^- f_6^- f_8^- f_{11}^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_{11}^- f_{12}^- +f_1^- f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_2^- f_6^- f_9^- f_{10}^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_6^- f_8^- f_{10}^- f_{12}^+ -f_1^- f_2^- f_6^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_1-E_6+E_7+E_{12})(-E_9-E_{12}+E_1+E_8)(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_1^+ -f_3^- f_4^- f_6^- f_8^- f_{11}^- f_1^+ f_{12}^+ +f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_1^+ -f_3^- f_4^- f_6^- f_9^- f_{10}^- f_1^+ f_{12}^+ -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_1^+ f_{12}^+ -f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_1^+ +f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_1^+ +f_1^- f_3^- f_4^- f_6^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_7-E_{12}+E_1+E_6)(-E_1-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})}\\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- -f_2^- f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{12}^+ +f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- -f_2^- f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- -f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+ -f_2^- f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^+ +f_2^- f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- +f_3^- f_4^- f_6^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_2-E_7-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_8+E_2+E_9+E_{12})(-E_2-E_{11}-E_{12}+E_3+E_4+E_{10})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- f_{10}^- -f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- f_7^+ +f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^- f_7^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_6+E_{11})(-E_3-E_4+}\\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_7^+ -f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_7^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_7^+ -f_1^- f_5^- f_6^- f_8^- f_{10}^- f_4^+ f_7^+ -f_1^- f_5^- f_6^- f_9^- f_{11}^- f_4^+ f_7^+ +f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_7^+ +f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_7^+ -f_1^- f_3^- f_5^- f_6^-}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_6+E_{11})(-E_1-E_6+E_7+E_{12})}\\
\frac{+f_2^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ -f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- +f_2^- f_3^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- -f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ -f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ +f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ +f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- -f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- +f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- -f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^- f_2^+ +f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- +f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_4^+ -f_5^- f_6^- f_8^- f_{10}^- f_{12}^- f_2^+ f_4^+ +f_2^- f_3^- f_5^- f_7^-}{(-E_2-E_7+E_5+E_6)(-E_2-E_9+E_5+E_8)(-E_2-E_{11}+E_5+E_{10})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)}\\
\frac{+f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ f_7^+ -f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ f_7^+ +f_5^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^- f_4^+ -f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_7^+ -f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ f_7^+ +f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_7^+ -f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_7^+ +f_3^- f_5^- f_6^- f_7^-}{(-E_5-E_6+E_2+E_7)(-E_6-E_9+E_7+E_8)(-E_6-E_{11}+E_7+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_7-E_{12}+E_1+E_6)}\\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ -f_2^- f_7^- f_8^- f_{10}^- f_{12}^- f_4^+ f_6^+ +f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ -f_2^- f_3^- f_7^- f_9^- f_{11}^- f_{12}^- f_6^+ -f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ f_6^+ +f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ -f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+ +f_2^- f_3^- f_7^- f_8^-}{(-E_2-E_7+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_6+E_{11})(-E_7-E_{12}+E_1+E_6)(-E_2-E_7-E_{12}+E_3+E_4+E_6)}\\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^- f_9^+ -f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- f_9^+ +f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- f_{10}^-}{(-E_5-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+}\\
\frac{+f_1^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_9^+ +f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_9^+ +f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_9^+ -f_1^- f_5^- f_6^- f_8^- f_{10}^- f_4^+ f_9^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_9^+ -f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_9^+ -f_1^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ -f_1^- f_5^- f_7^- f_8^-}{(-E_5-E_8+E_2+E_9)(-E_1-E_5-E_8+E_3+E_4+E_9)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_1-E_8+E_9+E_{12})}\\
\frac{+f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ f_9^+ +f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_9^+ -f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^- f_{12}^- -f_5^- f_6^- f_8^- f_9^- f_{10}^- f_{12}^- f_4^+ +f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_4^+ f_9^+ -f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_9^+ +f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_9^+ -f_5^- f_7^- f_8^- f_{11}^-}{(-E_5-E_8+E_2+E_9)(-E_6-E_9+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_9-E_{12}+E_1+E_8)}\\
\frac{+f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ f_8^+ +f_2^- f_3^- f_7^- f_9^- f_{11}^- f_{12}^- f_8^+ -f_2^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ f_8^+ -f_2^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ +f_2^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ -f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ -f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_8^+ +f_2^- f_3^- f_6^- f_9^-}{(-E_2-E_9+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_1+E_8)(-E_2-E_9-E_{12}+E_3+E_4+E_8)}\\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_7^+ f_{12}^+ -f_3^- f_4^- f_6^- f_9^- f_{11}^- f_7^+ f_{12}^+ -f_3^- f_4^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^+ +f_3^- f_4^- f_6^- f_9^- f_{10}^- f_7^+ f_{12}^+}{(-E_7-E_8+E_6+E_9)(-E_6-E_{11}+E_7+E_{10})(-E_3-E_4+E_5+E_{12})(-E_7-E_{12}+E_1+E_6)(-E_3-E_4-E_6+E_2+}\\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_9^+ f_{12}^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+ f_{12}^+ +f_3^- f_4^- f_7^- f_8^- f_{10}^- f_9^+ f_{12}^+ -f_3^- f_4^- f_6^- f_8^- f_9^- f_{10}^- f_{12}^+}{(-E_6-E_9+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_9-E_{12}+E_1+E_8)(-E_3-E_4-E_8+E_2+}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^- +f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^+}{(-E_5-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_5+E_{10})(-E_6-E_{11}+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+}\\
\frac{+f_1^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ -f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^+ +f_1^- f_5^- f_6^- f_8^- f_{10}^- f_4^+ f_{11}^+ -f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+ -f_1^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_{11}^+ -f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{11}^+ +f_1^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ +f_1^- f_3^- f_5^- f_6^-}{(-E_5-E_{10}+E_2+E_{11})(-E_1-E_5-E_{10}+E_3+E_4+E_{11})(-E_7-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_5^- f_6^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_4^+ +f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ -f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_{11}^+ -f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_4^+ f_{11}^+ -f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ f_{11}^+ -f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_{11}^+ +f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_{11}^+ +f_3^- f_5^- f_6^- f_8^-}{(-E_5-E_{10}+E_2+E_{11})(-E_6-E_{11}+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_1+E_{10})}\\
\frac{+f_2^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ -f_2^- f_3^- f_7^- f_9^- f_{11}^- f_{12}^- f_{10}^+ -f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_2^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_{10}^+ +f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ -f_2^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+ -f_2^- f_3^- f_6^- f_8^-}{(-E_2-E_{11}+E_5+E_{10})(-E_6-E_{11}+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_1+E_{10})(-E_2-E_{11}-E_{12}+E_3+E_4+E_{10})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^+ f_{12}^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+ f_{12}^+ +f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{11}^+ f_{12}^+ -f_3^- f_4^- f_6^- f_8^- f_{10}^- f_{11}^- f_{12}^+}{(-E_7-E_{10}+E_6+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E}\\
\frac{+f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_1^+ +f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_1^+ f_4^+ -f_3^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- f_1^+ +f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_1^+ +f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_1^+ f_4^+ -f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_1^+ -f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_1^+ f_4^+ -f_5^- f_7^- f_9^- f_{11}^- f_{12}^- f_1^+ f_4^+ +f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_1^+ +f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_1^+ f_4^+ +f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^- +f_1^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^- f_4^+ -f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_1^+ f_4^+ -f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_1^+ f_4^+ -f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_1^+ -f_3^- f_5^- f_6^- f_9^-}{(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_7-E_{12}+E_1+E_6)(-E_9-E_{12}+E_1+E_8)(-E_1-E_{10}+E_{11}+E_{12})}
\end{array}\right.
$$

$$-\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|7,12\}\{7,8|V|9,6\}\{9,10|V|1,10\}\{11,12|V|11,2\}f^-_{10}f^-_{11}\begin{pmatrix}
\frac{+f^-_1f^-_2f^-_3f^-_5f^-_6+f^-_1f^-_2f^-_5f^-_6f^+_4-f^-_1f^-_2f^-_7f^+_4f^+_5-f^-_1f^-_2f^-_3f^-_7f^+_5}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_5+E_8)(-E_1+E_9)(-E_2+E_{12})}\\
\frac{+f^-_3f^-_4f^-_5f^-_6f^+_2-f^-_3f^-_4f^-_7f^+_2f^+_5}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_2+E_9)(-E_2+E_{12})}\\
\frac{+f^-_1f^-_2f^-_6f^-_7f^+_4+f^-_1f^-_2f^-_3f^-_6f^-_7}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_1+E_9)(-E_2+E_{12})}\\
\frac{+f^-_3f^-_4f^-_6f^-_7f^+_2}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4+E_2+E_9)(-E_2+E_{12})}\\
\frac{+f^-_1f^-_3f^-_4f^-_5f^-_6-f^-_1f^-_3f^-_4f^-_7f^+_5}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_1+E_9)(-E_3-E_4+E_1+E_{12})}\\
\frac{+f^-_1f^-_3f^-_4f^-_6f^-_7}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_1+E_9)(-E_3-E_4+E_1+E_{12})}\\
\frac{+f^-_1f^-_2f^-_3f^-_6f^+_8-f^-_1f^-_2f^-_3f^-_7f^-_8-f^-_1f^-_2f^-_7f^-_8f^+_4+f^-_1f^-_2f^-_6f^+_4f^+_8}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_1+E_9)(-E_2+E_{12})}\\
\frac{+f^-_1f^-_3f^-_4f^-_7f^-_8-f^-_1f^-_3f^-_4f^-_6f^+_8}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_1+E_9)(-E_3-E_4+E_1+E_{12})}\\
\frac{+f^-_3f^-_4f^-_7f^-_8f^+_2-f^-_3f^-_4f^-_6f^+_2f^+_8}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_3-E_4+E_2+E_9)(-E_2+E_{12})}\\
\frac{+f^-_3f^-_4f^-_7f^+_5f^+_6}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_5-E_6+E_7+E_{12})}\\
\frac{+f^-_1f^-_5f^-_6f^+_4f^+_7+f^-_1f^-_3f^-_5f^-_6f^+_7}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_1-E_6+E_7+E_8)(-E_1+E_9)(-E_5-E_6+E_7+E_{12})}\\
\frac{+f^-_3f^-_5f^-_6f^-_8f^+_2+f^-_5f^-_6f^-_8f^+_2f^+_4-f^-_3f^-_5f^-_7f^-_8f^+_2-f^-_5f^-_7f^-_8f^+_2f^+_4}{(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_2+E_9)(-E_2+E_{12})}\\
\frac{+f^-_5f^-_7f^-_8f^+_4f^+_6+f^-_3f^-_5f^-_7f^-_8f^+_6}{(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{12})}\\
\frac{+f^-_2f^-_3f^-_7f^-_8f^+_6+f^-_2f^-_7f^-_8f^+_4f^+_6}{(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_7-E_8+E_6+E_9)(-E_2+E_{12})}\\
\frac{+f^-_2f^-_7f^-_9f^+_4f^+_5-f^-_2f^-_5f^-_6f^-_9f^+_4+f^-_2f^-_3f^-_7f^-_9f^+_5-f^-_2f^-_3f^-_5f^-_6f^-_9}{(-E_2-E_7+E_5+E_6)(-E_9+E_1)(-E_2-E_9+E_3+E_4)(-E_2-E_9+E_5+E_8)(-E_2+E_{12})}\\
\frac{+f^-_2f^-_3f^-_6f^-_7f^-_9+f^-_2f^-_6f^-_7f^-_9f^+_4}{(-E_2-E_7+E_5+E_6)(-E_9+E_1)(-E_2-E_9+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_2+E_{12})}\\
\frac{+f^-_5f^-_6f^-_9f^+_4f^+_7+f^-_3f^-_5f^-_6f^-_9f^+_7}{(-E_5-E_6+E_2+E_7)(-E_9+E_1)(-E_5-E_6-E_9+E_3+E_4+E_7)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{12})}\\
\frac{+f^-_1f^-_5f^-_6f^-_8f^+_4-f^-_1f^-_5f^-_7f^-_8f^+_4-f^-_1f^-_3f^-_5f^-_7f^-_8+f^-_1f^-_3f^-_5f^-_6f^-_8}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_1+E_9)(-E_5-E_8+E_1+E_{12})}\\
\frac{+f^-_3f^-_4f^-_7f^-_8f^+_6}{(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_7-E_8+E_6+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{12})}\\
\frac{+f^-_3f^-_4f^-_7f^-_9f^+_5-f^-_3f^-_4f^-_5f^-_6f^-_9}{(-E_3-E_4+E_5+E_8)(-E_9+E_1)(-E_3-E_4+E_2+E_9)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_3-E_4+E_9+E_{12})}\\
\frac{+f^-_3f^-_4f^-_6f^-_9f^+_8-f^-_3f^-_4f^-_7f^-_8f^-_9}{(-E_3-E_4+E_5+E_8)(-E_9+E_1)(-E_3-E_4+E_2+E_9)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_9+E_{12})}\\
\frac{+f^-_5f^-_6f^-_8f^-_9f^+_4-f^-_3f^-_5f^-_7f^-_8f^-_9+f^-_3f^-_5f^-_6f^-_8f^-_9-f^-_5f^-_7f^-_8f^-_9f^+_4}{(-E_5-E_8+E_3+E_4)(-E_9+E_1)(-E_5-E_8+E_2+E_9)(-E_6-E_9+E_7+E_8)(-E_5-E_8+E_9+E_{12})}\\
\frac{+f^-_3f^-_4f^-_5f^-_6f^+_{12}-f^-_3f^-_4f^-_7f^+_5f^+_{12}}{(-E_3-E_4+E_5+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_5-E_6+E_7+E_{12})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f^-_3f^-_4f^-_7f^-_8f^+_{12}-f^-_3f^-_4f^-_6f^+_8f^+_{12}}{(-E_3-E_4+E_5+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_3-E_4+E_9+E_{12})}\\
\frac{+f^-_5f^-_6f^-_8f^+_4f^+_{12}-f^-_5f^-_7f^-_8f^+_4f^+_{12}+f^-_3f^-_5f^-_6f^-_8f^+_{12}-f^-_3f^-_5f^-_7f^-_8f^+_{12}}{(-E_5-E_8+E_3+E_4)(-E_{12}+E_2)(-E_5-E_6+E_7+E_{12})(-E_5-E_8+E_1+E_{12})(-E_5-E_8+E_9+E_{12})}\\
\frac{+f^-_1f^-_3f^-_6f^-_7f^-_{12}+f^-_1f^-_6f^-_7f^-_{12}f^+_4}{(-E_1-E_6+E_7+E_8)(-E_1+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)}\\
\frac{+f^-_1f^-_3f^-_6f^-_{12}f^+_8+f^-_1f^-_6f^-_{12}f^+_4f^+_8-f^-_1f^-_3f^-_7f^-_8f^-_{12}-f^-_1f^-_7f^-_8f^-_{12}f^+_4}{(-E_1-E_6+E_7+E_8)(-E_1+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_8)}\\
\frac{+f^-_7f^-_8f^-_{12}f^+_4f^+_6+f^-_3f^-_7f^-_8f^-_{12}f^+_6}{(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_6+E_9)(-E_{12}+E_2)(-E_7-E_{12}+E_5+E_6)(-E_7-E_8-E_{12}+E_3+E_4+E_6)}\\
\frac{+f^-_3f^-_4f^-_6f^-_7f^-_9}{(-E_9+E_1)(-E_3-E_4+E_2+E_9)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_9+E_{12})}\\
\frac{+f^-_2f^-_3f^-_7f^-_8f^-_9-f^-_2f^-_6f^-_9f^+_4f^+_8-f^-_2f^-_3f^-_6f^-_9f^+_8+f^-_2f^-_7f^-_8f^-_9f^+_4}{(-E_9+E_1)(-E_2-E_9+E_3+E_4)(-E_2-E_9+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_2+E_{12})}\\
\frac{+f^-_6f^-_7f^-_9f^-_{12}f^+_4+f^-_3f^-_6f^-_7f^-_9f^-_{12}}{(-E_9+E_1)(-E_6-E_9+E_7+E_8)(-E_{12}+E_2)(-E_7-E_{12}+E_5+E_6)(-E_9-E_{12}+E_3+E_4)}\\
\frac{+f^-_7f^-_8f^-_9f^-_{12}f^+_4-f^-_6f^-_9f^-_{12}f^+_4f^+_8-f^-_3f^-_6f^-_9f^-_{12}f^+_8+f^-_3f^-_7f^-_8f^-_9f^-_{12}}{(-E_9+E_1)(-E_7-E_8+E_6+E_9)(-E_{12}+E_2)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f^-_1f^-_3f^-_5f^-_6f^-_{12}+f^-_1f^-_5f^-_6f^-_{12}f^+_4-f^-_1f^-_7f^-_{12}f^+_4f^+_5-f^-_1f^-_3f^-_7f^-_{12}f^+_5}{(-E_1+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_1-E_{12}+E_5+E_8)}\\
\frac{+f^-_3f^-_7f^-_9f^-_{12}f^+_5-f^-_3f^-_5f^-_6f^-_9f^-_{12}+f^-_7f^-_9f^-_{12}f^+_4f^+_5-f^-_5f^-_6f^-_9f^-_{12}f^+_4}{(-E_9+E_1)(-E_{12}+E_2)(-E_7-E_{12}+E_5+E_6)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f^-_3f^-_4f^-_6f^-_7f^+_{12}}{(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_3-E_4+E_9+E_{12})}
\end{pmatrix}$$

$$
-\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|7,12\}\{7,8|V|9,6\}\{9,10|V|11,2\}\{11,12|V|1,10\}\left(\begin{array}{r}
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_7^-f_{11}^-+f_1^-f_2^-f_5^-f_6^-f_7^-f_{11}^-f_4^+-f_1^-f_2^-f_6^-f_7^-f_{10}^-f_4^+f_5^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_{10}^-f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_2-E_7+E_5+E_6+E_9)(-E_5-E_6-E_{11}+E_1+E_7+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_{10}^-f_5^+f_9^++f_1^-f_2^-f_5^-f_6^-f_9^-f_{11}^-f_4^+-f_1^-f_2^-f_7^-f_{11}^-f_4^+f_5^+f_9^++f_1^-f_2^-f_3^-f_5^-f_6^-f_9^-f_{11}^--f_1^-f_2^-f_3^-f_7^-f_{11}^-f_5^+f_9^++f_1^-f_2^-f_7^-f_{10}^-f_4^+f_5^+f_9^+-f_1^-f_2^-f_5^-f_6^-f_9^-f_{10}^-f_4^+-f_1^-f_2^-f_3^-f_5^-f_6^-f_9^-f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_2-E_7+E_5+E_6+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_9+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_6^-f_7^-f_{11}^-f_8^++f_1^-f_2^-f_6^-f_7^-f_{11}^-f_4^+f_8^+-f_1^-f_2^-f_6^-f_7^-f_8^-f_{10}^-f_4^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_8^-f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_1-E_2-E_6+E_7+E_8+E_{12})}\\
\frac{+f_1^-f_2^-f_7^-f_8^-f_{10}^-f_4^+f_9^++f_1^-f_2^-f_6^-f_9^-f_{11}^-f_4^+f_8^++f_1^-f_2^-f_3^-f_7^-f_8^-f_{10}^-f_9^++f_1^-f_2^-f_3^-f_6^-f_9^-f_{11}^-f_8^+-f_1^-f_2^-f_3^-f_6^-f_9^-f_{10}^-f_8^+-f_1^-f_2^-f_6^-f_9^-f_{10}^-f_4^+f_8^+-f_1^-f_2^-f_3^-f_7^-f_8^-f_{11}^-f_9^+-f_1^-f_2^-f_7^-f_8^-f_{11}^-f_4^+f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_9+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_{10}^-f_5^+f_{11}^++f_1^-f_2^-f_7^-f_{10}^-f_4^+f_5^+f_{11}^+-f_1^-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_{10}^+-f_1^-f_2^-f_5^-f_6^-f_{11}^-f_4^+f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_7-E_{10}+E_5+E_6+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_6^-f_{11}^-f_4^+f_8^+f_{10}^++f_1^-f_2^-f_3^-f_6^-f_{11}^-f_8^+f_{10}^+-f_1^-f_2^-f_7^-f_8^-f_{10}^-f_4^+f_{11}^+-f_1^-f_2^-f_3^-f_7^-f_8^-f_{10}^-f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_{10}^-f_{12}^-f_5^++f_1^-f_2^-f_7^-f_{10}^-f_{12}^-f_4^+f_5^+-f_1^-f_2^-f_7^-f_{11}^-f_{12}^-f_4^+f_5^+-f_1^-f_2^-f_3^-f_7^-f_{11}^-f_{12}^-f_5^++f_1^-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_{12}^++f_1^-f_2^-f_5^-f_6^-f_{11}^-f_4^+f_{12}^+-f_1^-f_2^-f_5^-f_6^-f_{10}^-f_4^+f_{12}^+-f_1^-f_2^-f_3^-f_5^-f_6^-f_{10}^-f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_7-E_{12}+E_5+E_6)(-E_1-E_2+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_6^-f_{10}^-f_8^+f_{12}^+-f_1^-f_2^-f_7^-f_8^-f_{10}^-f_{12}^-f_4^++f_1^-f_2^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^++f_1^-f_2^-f_6^-f_{10}^-f_4^+f_8^+f_{12}^+-f_1^-f_2^-f_3^-f_7^-f_8^-f_{10}^-f_{12}^-+f_1^-f_2^-f_3^-f_7^-f_8^-f_{11}^-f_{12}^--f_1^-f_2^-f_6^-f_{11}^-f_4^+f_8^+f_{12}^+-f_1^-f_2^-f_3^-f_6^-f_{11}^-f_8^+f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_2-E_6+E_7+E_8+E_{12})(-E_1-E_2+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_7^-f_{11}^-f_1^+-f_3^-f_4^-f_6^-f_7^-f_{10}^-f_1^+f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_5-E_6-E_{11}+E_1+E_7+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_5^-f_6^-f_7^-f_{11}^--f_2^-f_3^-f_4^-f_6^-f_7^-f_{10}^-f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_2-E_5-E_6-E_{11}+E_3+E_4+E_7+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{11}^-f_5^+f_9^+-f_2^-f_3^-f_4^-f_7^-f_{10}^-f_5^+f_9^+-f_2^-f_3^-f_4^-f_5^-f_6^-f_9^-f_{11}^-+f_2^-f_3^-f_4^-f_5^-f_6^-f_9^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{11}^-f_1^+f_5^+f_9^+-f_3^-f_4^-f_5^-f_6^-f_9^-f_{11}^-f_1^++f_3^-f_4^-f_5^-f_6^-f_9^-f_{10}^-f_1^+-f_3^-f_4^-f_7^-f_{10}^-f_1^+f_5^+f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_6^-f_7^-f_{11}^-f_8^+-f_2^-f_3^-f_4^-f_6^-f_7^-f_8^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_{11}^-f_1^+f_8^+-f_3^-f_4^-f_6^-f_7^-f_8^-f_{10}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_3-E_4-E_6-E_{11}+E_1+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_9^++f_2^-f_3^-f_4^-f_6^-f_9^-f_{11}^-f_8^+-f_2^-f_3^-f_4^-f_6^-f_9^-f_{10}^-f_8^+-f_2^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{10}^-f_1^+f_9^++f_3^-f_4^-f_6^-f_9^-f_{11}^-f_1^+f_8^+-f_3^-f_4^-f_6^-f_9^-f_{10}^-f_1^+f_8^+-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_1^+f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_{11}^-f_1^+f_{10}^+-f_1^-f_3^-f_4^-f_7^-f_{10}^-f_5^+f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_6-E_{11}+E_1+E_7+E_{10})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{10}^-f_2^+f_5^+f_{11}^+-f_2^-f_3^-f_4^-f_5^-f_6^-f_{11}^-f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7-E_{10}+E_2+E_5+E_6+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{10}^-f_2^+f_{11}^+-f_2^-f_3^-f_4^-f_6^-f_{11}^-f_8^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{11}^+-f_3^-f_4^-f_6^-f_{11}^-f_1^+f_8^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_1-E_7-E_8-E_{10}+E_3+E_4+E_6+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{10}^-f_{12}^-f_1^+f_5^+-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_1^+f_5^++f_3^-f_4^-f_5^-f_6^-f_{11}^-f_1^+f_{12}^+-f_3^-f_4^-f_5^-f_6^-f_{10}^-f_1^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_{12}+E_5+E_6)(-E_3-E_4+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_5^-f_6^-f_{10}^-f_{12}^+-f_2^-f_3^-f_4^-f_7^-f_{10}^-f_{12}^-f_5^++f_2^-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_5^+-f_2^-f_3^-f_4^-f_5^-f_6^-f_{11}^-f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_6+E_7+E_{12})(-E_3-E_4+E_9+E_{12})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{12}^-f_1^+-f_3^-f_4^-f_6^-f_{10}^-f_1^+f_8^+f_{12}^++f_3^-f_4^-f_6^-f_{11}^-f_1^+f_8^+f_{12}^+-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_3-E_4+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{12}^--f_2^-f_3^-f_4^-f_6^-f_{10}^-f_8^+f_{12}^++f_2^-f_3^-f_4^-f_6^-f_{11}^-f_8^+f_{12}^+-f_2^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_3-E_4+E_9+E_{12})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_6^-f_7^-f_{11}^-f_4^+f_9^++f_1^-f_2^-f_3^-f_6^-f_7^-f_{11}^-f_9^+-f_1^-f_2^-f_6^-f_7^-f_9^-f_{10}^-f_4^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_9^-f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_9+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_6^-f_7^-f_{11}^-f_9^+-f_2^-f_3^-f_4^-f_6^-f_7^-f_9^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_9^-f_{10}^-f_1^+-f_3^-f_4^-f_6^-f_7^-f_{11}^-f_1^+f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_1^-f_2^-f_6^-f_7^-f_{10}^-f_{11}^-f_4^++f_1^-f_2^-f_3^-f_6^-f_7^-f_{10}^-f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_7-E_{10}+E_5+E_6+E_{11})(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_{10}^-f_{11}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_{10}+E_5+E_6+E_{11})(-E_3-E_4-E_6-E_{11}+E_1+E_7+E_8+E_{10})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_6^-f_7^-f_{10}^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7-E_{10}+E_2+E_5+E_6+E_{11})(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_6^-f_7^-f_{10}^-f_4^+f_{12}^+-f_1^-f_2^-f_6^-f_7^-f_{11}^-f_{12}^-f_4^++f_1^-f_2^-f_3^-f_6^-f_7^-f_{10}^-f_{12}^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_{11}^-f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_1-E_2-E_6+E_7+E_8+E_{12})(-E_1-E_2+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_{11}^-f_{12}^-f_1^+-f_3^-f_4^-f_6^-f_7^-f_{10}^-f_1^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_3-E_4+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})}\\
\frac{+f_2^-f_3^-f_4^-f_6^-f_7^-f_{11}^-f_{12}^--f_2^-f_3^-f_4^-f_6^-f_7^-f_{10}^-f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_3-E_4+E_9+E_{12})(-E_2-E_{11}-E_{12}+E_3+E_4+E_{10})}\\
\frac{+f_3^-f_5^-f_6^-f_7^-f_8^-f_{10}^-f_1^++f_5^-f_6^-f_7^-f_8^-f_{10}^-f_1^+f_4^+-f_3^-f_5^-f_6^-f_7^-f_8^-f_{11}^-f_1^+-f_5^-f_6^-f_7^-f_8^-f_{11}^-f_1^+f_4^+}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_1-E_7-E_{10}+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_6^-f_7^-f_8^-f_{10}^-+f_2^-f_5^-f_6^-f_7^-f_8^-f_{10}^-f_4^+-f_2^-f_5^-f_6^-f_7^-f_8^-f_{11}^-f_4^+-f_2^-f_3^-f_5^-f_6^-f_7^-f_8^-f_{11}^-}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^-f_5^-f_6^-f_8^-f_9^-f_{11}^-f_4^+-f_2^-f_3^-f_5^-f_6^-f_8^-f_9^-f_{10}^--f_2^-f_5^-f_6^-f_8^-f_9^-f_{10}^-f_4^++f_2^-f_3^-f_5^-f_7^-f_8^-f_{10}^-f_9^++f_2^-f_3^-f_5^-f_6^-f_8^-f_9^-f_{11}^-+f_2^-f_5^-f_7^-f_8^-f_{10}^-f_4^+f_9^+-f_2^-f_5^-f_7^-f_8^-f_{11}^-f_4^+f_9^+-f_2^-f_3^-f_5^-f_7^-f_8^-f_{11}^-f_9^+}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_8+E_9+E_{12})}\\
\frac{+f_5^-f_7^-f_8^-f_{10}^-f_1^+f_4^+f_9^++f_3^-f_5^-f_6^-f_8^-f_9^-f_{11}^-f_1^+-f_5^-f_6^-f_8^-f_9^-f_{10}^-f_1^+f_4^++f_3^-f_5^-f_7^-f_8^-f_{10}^-f_1^+f_9^++f_5^-f_6^-f_8^-f_9^-f_{11}^-f_1^+f_4^+-f_3^-f_5^-f_6^-f_8^-f_9^-f_{10}^-f_1^+-f_3^-f_5^-f_7^-f_8^-f_{11}^-f_1^+f_9^+-f_5^-f_7^-f_8^-f_{11}^-f_1^+f_4^+f_9^+}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_1-E_9-E_{10}+E_5+E_8+E_{11})(-E_5-E_8+E_9+E_{12})}\\
\frac{+f_3^-f_5^-f_6^-f_8^-f_{11}^-f_1^+f_{10}^++f_5^-f_6^-f_8^-f_{11}^-f_1^+f_4^+f_{10}^+-f_1^-f_5^-f_7^-f_8^-f_{10}^-f_4^+f_{11}^+-f_1^-f_3^-f_5^-f_7^-f_8^-f_{10}^-f_{11}^+}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_6-E_{11}+E_1+E_7+E_{10})(-E_5-E_8-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_{10}^++f_2^-f_5^-f_6^-f_8^-f_{11}^-f_4^+f_{10}^+-f_3^-f_5^-f_7^-f_8^-f_{10}^-f_2^+f_{11}^+-f_5^-f_7^-f_8^-f_{10}^-f_2^+f_4^+f_{11}^+}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}\\
\frac{+f_3^-f_5^-f_6^-f_8^-f_{10}^-f_1^+f_{12}^++f_3^-f_5^-f_7^-f_8^-f_{11}^-f_{12}^-f_1^+-f_5^-f_6^-f_8^-f_{11}^-f_1^+f_4^+f_{12}^+-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_1^+f_{12}^++f_5^-f_7^-f_8^-f_{11}^-f_{12}^-f_1^+f_4^++f_5^-f_6^-f_8^-f_{10}^-f_1^+f_4^+f_{12}^+-f_5^-f_7^-f_8^-f_{10}^-f_{12}^-f_1^+f_4^+-f_3^-f_5^-f_7^-f_8^-f_{10}^-f_{12}^-f_1^+}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_8+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_7^-f_8^-f_{11}^-f_{12}^--f_2^-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_{12}^+-f_2^-f_5^-f_6^-f_8^-f_{11}^-f_4^+f_{12}^++f_2^-f_3^-f_5^-f_6^-f_8^-f_{10}^-f_{12}^++f_2^-f_5^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^+-f_2^-f_5^-f_7^-f_8^-f_{10}^-f_{12}^-f_4^++f_2^-f_5^-f_6^-f_8^-f_{10}^-f_4^+f_{12}^+-f_2^-f_3^-f_5^-f_7^-f_8^-f_{10}^-f_{12}^-}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_5-E_8+E_9+E_{12})(-E_2-E_{11}-E_{12}+E_5+E_8+E_{10})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_{10}^-f_5^+f_{11}^+}{(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_5-E_6-E_{11}+E_1+E_7+E_{10})(-E_3-E_4-E_7-E_{10}+E_2+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_9^-f_{10}^-f_{11}^+-f_3^-f_4^-f_7^-f_{10}^-f_5^+f_9^+f_{11}^+}{(-E_3-E_4+E_5+E_8)(-E_5-E_6-E_9+E_3+E_4+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_5^-f_6^-f_7^-f_8^-f_{10}^-f_4^+f_{11}^++f_3^-f_5^-f_6^-f_7^-f_8^-f_{10}^-f_{11}^+}{(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_6-E_{11}+E_1+E_7+E_{10})(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_8^-f_{10}^-f_{11}^+}{(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_3-E_4-E_6-E_{11}+E_1+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{10}^-f_9^+f_{11}^+-f_3^-f_4^-f_6^-f_9^-f_{10}^-f_8^+f_{11}^+}{(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_5^-f_7^-f_8^-f_{10}^-f_4^+f_9^+f_{11}^+-f_5^-f_6^-f_8^-f_9^-f_{10}^-f_4^+f_{11}^++f_3^-f_5^-f_7^-f_8^-f_{10}^-f_9^+f_{11}^+-f_3^-f_5^-f_6^-f_8^-f_9^-f_{10}^-f_{11}^+}{(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_8-E_{11}+E_1+E_9+E_{10})(-E_5-E_8+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_{10}^-f_{11}^+f_{12}^+-f_3^-f_4^-f_7^-f_{10}^-f_{12}^-f_5^+f_{11}^+}{(-E_3-E_4+E_5+E_8)(-E_5-E_6+E_7+E_{12})(-E_3-E_4+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})}
\end{array}\right.
$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|7,10\}\{7,8|V|1,6\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_9^- f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- -f_1^- f_2^- f_3^- f_7^- f_5^+ -f_1^- f_2^- f_7^- f_4^+ f_5^+ +f_1^- f_2^- f_5^- f_6^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_5+E_8)(-E_2+E_{10})(-E_2+E_{12})}\\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- -f_2^- f_3^- f_4^- f_7^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_3-E_4+E_5+E_8)(-E_2+E_{10})(-E_2+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- +f_1^- f_2^- f_6^- f_7^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_2+E_{10})(-E_2+E_{12})}\\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_2+E_{10})(-E_2+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_1^+ f_5^+ -f_3^- f_4^- f_5^- f_6^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_1+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_1+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_6^- f_8^+ +f_1^- f_2^- f_6^- f_4^+ f_8^+ -f_1^- f_2^- f_7^- f_8^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_2+E_{10})(-E_2+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_1^+ f_8^+ -f_3^- f_4^- f_7^- f_8^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_1+E_{12})}\\
\frac{+f_2^- f_3^- f_4^- f_6^- f_8^+ -f_2^- f_3^- f_4^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_2+E_{10})(-E_2+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^+ +f_1^- f_5^- f_6^- f_4^+ f_7^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_1-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^- f_5^- f_7^- f_8^- f_4^+ +f_2^- f_3^- f_5^- f_7^- f_8^- -f_2^- f_5^- f_6^- f_8^- f_4^+ -f_2^- f_3^- f_5^- f_6^- f_8^-}{(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_2+E_{10})(-E_2+E_{12})}\\
\frac{+f_3^- f_5^- f_6^- f_8^- f_7^+ +f_5^- f_6^- f_8^- f_4^+ f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^- f_3^- f_7^- f_8^- f_6^+ +f_2^- f_7^- f_8^- f_4^+ f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_2+E_{10})(-E_2+E_{12})}\\
\frac{+f_3^- f_5^- f_6^- f_8^- f_1^+ -f_3^- f_5^- f_7^- f_8^- f_1^+ -f_5^- f_7^- f_8^- f_1^+ f_4^+ +f_5^- f_6^- f_8^- f_1^+ f_4^+}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_5-E_8+E_1+E_{10})(-E_5-E_8+E_1+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_7^+ f_8^+}{(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_5^+ -f_3^- f_4^- f_5^- f_6^- f_{10}^-}{(-E_3-E_4+E_5+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- -f_3^- f_4^- f_6^- f_{10}^- f_8^+}{(-E_3-E_4+E_5+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_{10}+E_{12})}\\
\frac{+f_3^- f_5^- f_6^- f_8^- f_{10}^- +f_5^- f_6^- f_8^- f_{10}^- f_4^+ -f_5^- f_7^- f_8^- f_{10}^- f_4^+ -f_3^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_5-E_8+E_3+E_4)(-E_{10}+E_2)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_1+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_5^+ -f_3^- f_4^- f_5^- f_6^- f_{12}^-}{(-E_3-E_4+E_5+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_{10})}\\
\frac{+f_3^- f_4^- f_6^- f_{12}^- f_8^+ -f_3^- f_4^- f_7^- f_8^- f_{12}^-}{(-E_3-E_4+E_5+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_5^- f_6^- f_8^- f_{12}^- f_4^+ -f_3^- f_5^- f_7^- f_8^- f_{12}^- +f_3^- f_5^- f_6^- f_8^- f_{12}^- -f_5^- f_7^- f_8^- f_{12}^- f_4^+}{(-E_5-E_8+E_3+E_4)(-E_{12}+E_2)(-E_5-E_6+E_7+E_{12})(-E_5-E_8+E_1+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_1^- f_6^- f_7^- f_{10}^- f_4^+ +f_1^- f_3^- f_6^- f_7^- f_{10}^-}{(-E_1-E_6+E_7+E_8)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_{12})}\\
\frac{+f_1^- f_7^- f_8^- f_{10}^- f_4^+ -f_1^- f_3^- f_6^- f_{10}^- f_8^+ -f_1^- f_6^- f_{10}^- f_4^+ f_8^+ +f_1^- f_3^- f_7^- f_8^- f_{10}^-}{(-E_7-E_8+E_1+E_6)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_8)(-E_{10}+E_{12})}\\
\frac{+f_7^- f_8^- f_{10}^- f_4^+ f_6^+ +f_3^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_7-E_8+E_1+E_6)(-E_{10}+E_2)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_{10}+E_{12})}\\
\frac{+f_1^- f_3^- f_6^- f_7^- f_{12}^- +f_1^- f_6^- f_7^- f_{12}^- f_4^+}{(-E_1-E_6+E_7+E_8)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_{10})}\\
\frac{+f_1^- f_7^- f_8^- f_{12}^- f_4^+ +f_1^- f_3^- f_7^- f_8^- f_{12}^- -f_1^- f_6^- f_{12}^- f_4^+ f_8^+ -f_1^- f_3^- f_6^- f_{12}^- f_8^+}{(-E_7-E_8+E_1+E_6)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_8)(-E_{12}+E_{10})}\\
\frac{+f_3^- f_7^- f_8^- f_{12}^- f_6^+ +f_7^- f_8^- f_{12}^- f_4^+ f_6^+}{(-E_7-E_8+E_1+E_6)(-E_{12}+E_2)(-E_7-E_{12}+E_5+E_6)(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_{12}+E_{10})}\\
\frac{+f_1^- f_5^- f_6^- f_{10}^- f_4^+ +f_1^- f_3^- f_5^- f_6^- f_{10}^- -f_1^- f_3^- f_7^- f_{10}^- f_5^+ -f_1^- f_7^- f_{10}^- f_4^+ f_5^+}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_1-E_{10}+E_5+E_8)(-E_{10}+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^-}{(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_1^- f_7^- f_{12}^- f_4^+ f_5^+ -f_1^- f_5^- f_6^- f_{12}^- f_4^+ +f_1^- f_3^- f_7^- f_{12}^- f_5^+ -f_1^- f_3^- f_5^- f_6^- f_{12}^-}{(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_1-E_{12}+E_5+E_8)(-E_{12}+E_{10})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{12}^-}{(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_{12}+E_{10})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|7,10\}\{7,8|V|1,6\}\{9,10|V|11,2\}\{11,12|V|9,12\}f_{12}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ - f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_5^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_5^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- - f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- + f_1^- f_2^- f_7^- f_9^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_5+E_8)(-E_2+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_2^+ f_5^+ + f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+ - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+ - f_3^- f_4^- f_7^- f_9^- f_2^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_2+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- - f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- - f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_2+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_2^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_2+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- - f_1^- f_3^- f_4^- f_7^- f_{11}^- f_5^+ - f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- + f_1^- f_3^- f_4^- f_7^- f_9^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_1+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_{11}^- - f_1^- f_3^- f_4^- f_6^- f_7^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_3-E_4+E_1+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_8^+ - f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ + f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ - f_1^- f_2^- f_3^- f_6^- f_9^- f_8^+ + f_1^- f_2^- f_3^- f_6^- f_{11}^- f_8^+ - f_1^- f_2^- f_6^- f_9^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- + f_1^- f_2^- f_3^- f_7^- f_8^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_2+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- - f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- - f_1^- f_3^- f_4^- f_6^- f_{11}^- f_8^+ + f_1^- f_3^- f_4^- f_6^- f_9^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_3-E_4+E_1+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ + f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_8^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ - f_3^- f_4^- f_6^- f_9^- f_2^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_2+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_5^+ f_6^+ - f_3^- f_4^- f_7^- f_{11}^- f_5^+ f_6^+}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_9+E_{11})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_4^+ f_7^+ - f_1^- f_3^- f_5^- f_6^- f_{11}^- f_7^+ - f_1^- f_5^- f_6^- f_{11}^- f_4^+ f_7^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_1-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_{11}^- f_2^+ - f_5^- f_6^- f_8^- f_9^- f_2^+ f_4^+ - f_3^- f_5^- f_6^- f_8^- f_9^- f_2^+ + f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_4^+ - f_5^- f_7^- f_8^- f_{11}^- f_2^+ f_4^+ + f_5^- f_7^- f_8^- f_9^- f_2^+ f_4^+ - f_3^- f_5^- f_7^- f_8^- f_{11}^- f_2^+ + f_3^- f_5^- f_7^- f_8^- f_9^- f_2^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_2+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_5^- f_7^- f_8^- f_9^- f_6^+ - f_5^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ + f_5^- f_7^- f_8^- f_9^- f_4^+ f_6^+ - f_3^- f_5^- f_7^- f_8^- f_{11}^- f_6^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_9+E_{11})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+ - f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ + f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+ - f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_2+E_{10})(-E_9+E_{11})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- + f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ - f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ + f_1^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- - f_1^- f_3^- f_5^- f_7^- f_8^- f_9^- + f_1^- f_3^- f_5^- f_7^- f_8^- f_{11}^- - f_1^- f_5^- f_7^- f_8^- f_9^- f_4^+}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_5-E_8+E_1+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+}{(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_5^+ f_{10}^+ - f_3^- f_4^- f_7^- f_9^- f_5^+ f_{10}^+ + f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_5+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_7-E_{10}+E_5+E_6)(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_{10}^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^+ - f_3^- f_4^- f_6^- f_9^- f_8^+ f_{10}^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_5+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_{11}+E_9)} \\
\frac{+f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_{10}^+ - f_5^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ + f_5^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+ - f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{10}^+ + f_3^- f_5^- f_7^- f_8^- f_9^- f_{10}^+ + f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+ - f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^+ - f_5^- f_6^- f_8^- f_9^- f_4^+ f_{10}^+}{(-E_5-E_8+E_3+E_4)(-E_{10}+E_2)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_1+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ - f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- + f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^-}{(-E_1-E_6+E_7+E_8)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_{11}+E_9)} \\
\frac{+f_1^- f_3^- f_6^- f_{10}^- f_{11}^- f_8^+ + f_1^- f_3^- f_7^- f_8^- f_9^- f_{10}^- + f_1^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ + f_1^- f_6^- f_{10}^- f_{11}^- f_4^+ f_8^+ - f_1^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ - f_1^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ - f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- - f_1^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+}{(-E_1-E_6+E_7+E_8)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_8)(-E_{11}+E_9)} \\
\frac{+f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ - f_3^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ - f_7^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+ + f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ f_6^+}{(-E_7-E_8+E_1+E_6)(-E_{10}+E_2)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_{11}+E_9)} \\
\frac{+f_1^- f_7^- f_{10}^- f_{11}^- f_4^+ f_5^+ - f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- - f_1^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- + f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_5^+ - f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_5^+ + f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_1-E_{10}+E_5+E_8)(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^+}{(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_{11}+E_9)}
\end{array} \right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|1,8\}\{7,8|V|7,10\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_7^- f_9^- f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- + f_1^- f_2^- f_3^- f_6^+ + f_1^- f_2^- f_4^+ f_6^+ + f_1^- f_2^- f_5^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^+ + f_2^- f_3^- f_4^- f_5^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_1^+ f_6^+ + f_3^- f_4^- f_5^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- + f_2^- f_5^- f_6^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_5^- f_6^- f_1^+ f_4^+ + f_3^- f_5^- f_6^- f_1^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6+E_1+E_{10})(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- + f_3^- f_4^- f_8^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_8^- + f_5^- f_6^- f_8^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_6^+ + f_3^- f_4^- f_5^- f_{10}^-}{(-E_3-E_4+E_5+E_6)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_{10}^- + f_5^- f_6^- f_{10}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_{10}+E_2)(-E_5-E_6+E_1+E_{10})(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{12}^- + f_3^- f_4^- f_{12}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_{12}^- + f_5^- f_6^- f_{12}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_{12}+E_2)(-E_5-E_6+E_1+E_{12})(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_5^- f_8^- f_4^+ + f_1^- f_3^- f_5^- f_8^- + f_1^- f_8^- f_4^+ f_6^+ + f_1^- f_3^- f_8^- f_6^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_{10}^- + f_1^- f_3^- f_{10}^- f_6^+ + f_1^- f_5^- f_{10}^- f_4^+ + f_1^- f_{10}^- f_4^+ f_6^+}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_{12}^- f_6^+ + f_1^- f_{12}^- f_4^+ f_6^+ + f_1^- f_5^- f_{12}^- f_4^+ + f_1^- f_3^- f_5^- f_{12}^-}{(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_6)(-E_{12}+E_8)(-E_{12}+E_{10})}
\end{array} \right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|1,8\}\{7,8|V|9,12\}\{9,10|V|7,10\}\{11,12|V|11,2\}f_{10}^- f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_9^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_5^- f_9^- +f_1^- f_2^- f_5^- f_9^- f_4^+ -f_1^- f_2^- f_7^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_9^- f_6^+ -f_1^- f_2^- f_3^- f_7^- f_6^+ -f_1^- f_2^- f_5^- f_7^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_7^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_9+E_7)(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_6^+ -f_2^- f_3^- f_4^- f_5^- f_7^- +f_2^- f_3^- f_4^- f_5^- f_9^- -f_2^- f_3^- f_4^- f_7^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_9+E_7)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_1^+ +f_3^- f_4^- f_7^- f_1^+ f_6^+ -f_3^- f_4^- f_9^- f_1^+ f_6^+ -f_3^- f_4^- f_5^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_7+E_9)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- +f_2^- f_5^- f_6^- f_9^- f_4^+ -f_2^- f_5^- f_6^- f_7^- f_4^+ -f_2^- f_3^- f_5^- f_6^- f_7^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_9+E_7)(-E_2+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_1^+ -f_3^- f_5^- f_6^- f_7^- f_1^+ +f_5^- f_6^- f_9^- f_1^+ f_4^+ -f_5^- f_6^- f_7^- f_1^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_9+E_7)(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_6^+ +f_3^- f_4^- f_5^- f_7^- f_8^- -f_3^- f_4^- f_5^- f_8^- f_9^- -f_3^- f_4^- f_8^- f_9^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_7+E_9)(-E_8+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_8^- f_4^+ +f_3^- f_5^- f_6^- f_7^- f_8^- -f_5^- f_6^- f_8^- f_9^- f_4^+ -f_3^- f_5^- f_6^- f_8^- f_9^-}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_7+E_9)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_6^+ -f_3^- f_4^- f_5^- f_9^- f_{12}^- -f_3^- f_4^- f_9^- f_{12}^- f_6^+ +f_3^- f_4^- f_5^- f_7^- f_{12}^-}{(-E_3-E_4+E_5+E_6)(-E_7+E_9)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_{12}+E_8)} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{12}^- +f_5^- f_6^- f_9^- f_{12}^- f_4^+ -f_5^- f_6^- f_7^- f_{12}^- f_4^+ -f_3^- f_5^- f_6^- f_7^- f_{12}^-}{(-E_5-E_6+E_3+E_4)(-E_9+E_7)(-E_{12}+E_2)(-E_5-E_6+E_1+E_{12})(-E_{12}+E_8)} \\
\frac{+f_1^- f_7^- f_8^- f_4^+ f_6^+ -f_1^- f_5^- f_8^- f_9^- f_4^+ +f_1^- f_5^- f_7^- f_8^- f_4^+ -f_1^- f_8^- f_9^- f_4^+ f_6^+ -f_1^- f_3^- f_8^- f_9^- f_6^+ +f_1^- f_3^- f_5^- f_7^- f_8^- +f_1^- f_3^- f_7^- f_8^- f_6^+ -f_1^- f_3^- f_5^- f_8^- f_9^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7+E_9)(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_7^- f_{12}^- -f_1^- f_3^- f_9^- f_{12}^- f_6^+ -f_1^- f_9^- f_{12}^- f_4^+ f_6^+ -f_1^- f_5^- f_9^- f_{12}^- f_4^+ +f_1^- f_3^- f_7^- f_{12}^- f_6^+ +f_1^- f_7^- f_{12}^- f_4^+ f_6^+ -f_1^- f_3^- f_5^- f_9^- f_{12}^- +f_1^- f_5^- f_7^- f_{12}^- f_4^+}{(-E_7+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_6)(-E_{12}+E_8)}
\end{array}\right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|1,8\}\{7,8|V|7,10\}\{9,10|V|11,2\}\{11,12|V|9,12\}f_7^- f_{12}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_{11}^- +f_1^- f_2^- f_5^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_{11}^- f_6^+ -f_1^- f_2^- f_3^- f_5^- f_9^- -f_1^- f_2^- f_5^- f_9^- f_4^+ +f_1^- f_2^- f_{11}^- f_4^+ f_6^+ -f_1^- f_2^- f_3^- f_9^- f_6^+ -f_1^- f_2^- f_9^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_2+E_{10})(-E_{11}+E_9)} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- +f_2^- f_3^- f_4^- f_9^- f_6^+ -f_2^- f_3^- f_4^- f_5^- f_{11}^- -f_2^- f_3^- f_4^- f_{11}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_2+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_1^+ +f_3^- f_4^- f_9^- f_1^+ f_6^+ -f_3^- f_4^- f_5^- f_{11}^- f_1^+ -f_3^- f_4^- f_{11}^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_1+E_{10})(-E_9+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_4^+ -f_2^- f_3^- f_5^- f_6^- f_{11}^- -f_2^- f_5^- f_6^- f_{11}^- f_4^+ +f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_2+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_5^- f_6^- f_{11}^- f_1^+ +f_5^- f_6^- f_{11}^- f_1^+ f_4^+ -f_5^- f_6^- f_9^- f_1^+ f_4^+ -f_3^- f_5^- f_6^- f_9^- f_1^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6+E_1+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_6^+ -f_3^- f_4^- f_5^- f_8^- f_{11}^- +f_3^- f_4^- f_5^- f_8^- f_9^- -f_3^- f_4^- f_8^- f_{11}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_8+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_{11}^- -f_3^- f_5^- f_6^- f_8^- f_9^- +f_5^- f_6^- f_8^- f_{11}^- f_4^+ -f_5^- f_6^- f_8^- f_9^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_8+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_6^+ -f_3^- f_4^- f_5^- f_{10}^- f_{11}^- +f_3^- f_4^- f_5^- f_9^- f_{10}^- -f_3^- f_4^- f_{10}^- f_{11}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_{10}+E_8)(-E_9+E_{11})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_4^+ -f_3^- f_5^- f_6^- f_{10}^- f_{11}^- +f_3^- f_5^- f_6^- f_9^- f_{10}^- -f_5^- f_6^- f_{10}^- f_{11}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_{10}+E_2)(-E_5-E_6+E_1+E_{10})(-E_{10}+E_8)(-E_9+E_{11})} \\
\frac{+f_1^- f_3^- f_8^- f_9^- f_6^+ -f_1^- f_5^- f_8^- f_{11}^- f_4^+ -f_1^- f_3^- f_5^- f_8^- f_{11}^- -f_1^- f_3^- f_8^- f_{11}^- f_6^+ +f_1^- f_5^- f_8^- f_9^- f_4^+ +f_1^- f_3^- f_5^- f_8^- f_9^- +f_1^- f_8^- f_9^- f_4^+ f_6^+ -f_1^- f_8^- f_{11}^- f_4^+ f_6^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_9+E_{11})} \\
\frac{+f_1^- f_3^- f_9^- f_{10}^- f_6^+ +f_1^- f_9^- f_{10}^- f_4^+ f_6^+ +f_1^- f_3^- f_5^- f_9^- f_{10}^- +f_1^- f_5^- f_9^- f_{10}^- f_4^+ -f_1^- f_3^- f_5^- f_{10}^- f_{11}^- -f_1^- f_5^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_3^- f_{10}^- f_{11}^- f_6^+ -f_1^- f_{10}^- f_{11}^- f_4^+ f_6^+}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_9+E_{11})}
\end{array}\right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|1,8\}\{7,8|V|9,2\}\{9,10|V|11,10\}\{11,12|V|7,12\}f_{10}^- f_{12}^- \left(\begin{array}{c}
\frac{+f_1^- f_2^- f_7^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_7^- f_6^+ +f_1^- f_2^- f_3^- f_5^- f_7^- +f_1^- f_2^- f_5^- f_7^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_6^+ +f_1^- f_2^- f_3^- f_5^- f_9^- +f_1^- f_2^- f_9^- f_4^+ f_6^+ +f_1^- f_2^- f_5^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_1^- f_2^- f_{11}^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_{11}^- f_6^+ +f_1^- f_2^- f_3^- f_5^- f_{11}^- +f_1^- f_2^- f_5^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_{11}^- +f_2^- f_3^- f_4^- f_{11}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_1^+ f_6^+ +f_3^- f_4^- f_5^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_6^+ +f_3^- f_4^- f_5^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_1^+ +f_3^- f_4^- f_{11}^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_4^+ +f_2^- f_3^- f_5^- f_6^- f_7^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_4^+ +f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_4^+ +f_2^- f_3^- f_5^- f_6^- f_{11}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_5^- f_6^- f_7^- f_1^+ f_4^+ +f_3^- f_5^- f_6^- f_7^- f_1^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_1^+ +f_5^- f_6^- f_9^- f_1^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_3^- f_5^- f_6^- f_{11}^- f_1^+ +f_5^- f_6^- f_{11}^- f_1^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- +f_3^- f_4^- f_7^- f_8^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_6^+ +f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- +f_3^- f_4^- f_8^- f_{11}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_5^- f_6^- f_7^- f_8^- f_4^+ +f_3^- f_5^- f_6^- f_7^- f_8^-}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_9^- +f_5^- f_6^- f_8^- f_9^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_{11}^- +f_5^- f_6^- f_8^- f_{11}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_1^- f_7^- f_8^- f_4^+ f_6^+ +f_1^- f_3^- f_7^- f_8^- f_6^+ +f_1^- f_3^- f_5^- f_7^- f_8^- +f_1^- f_5^- f_7^- f_8^- f_4^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_1^- f_8^- f_9^- f_4^+ f_6^+ +f_1^- f_3^- f_5^- f_8^- f_9^- +f_1^- f_5^- f_8^- f_9^- f_4^+ +f_1^- f_3^- f_8^- f_9^- f_6^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_1^- f_3^- f_5^- f_8^- f_{11}^- +f_1^- f_5^- f_8^- f_{11}^- f_4^+ +f_1^- f_8^- f_{11}^- f_4^+ f_6^+ +f_1^- f_3^- f_8^- f_{11}^- f_6^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_{11}+E_7)(-E_{11}+E_9)}
\end{array}\right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|1,8\}\{7,8|V|9,2\}\{9,10|V|7,12\}\{11,12|V|11,10\}f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_4^+ f_6^+ -f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ +f_1^- f_2^- f_3^- f_7^- f_{10}^- f_6^+ -f_1^- f_2^- f_5^- f_7^- f_{12}^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_{12}^- +f_1^- f_2^- f_5^- f_7^- f_{10}^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- -f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ -f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- +f_1^- f_2^- f_3^- f_5^- f_9^- f_{12}^- +f_1^- f_2^- f_5^- f_9^- f_{12}^- f_4^+ +f_1^- f_2^- f_9^- f_{12}^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_9^- f_{12}^- f_6^+ -f_1^- f_2^- f_3^- f_7^- f_{12}^- f_6^+ -f_1^- f_2^- f_7^- f_{12}^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_7+E_9)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ -f_2^- f_3^- f_4^- f_7^- f_{10}^- f_6^+ -f_2^- f_3^- f_4^- f_5^- f_7^- f_{10}^- +f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- -f_2^- f_3^- f_4^- f_5^- f_9^- f_{12}^- -f_2^- f_3^- f_4^- f_9^- f_{12}^- f_6^+ +f_2^- f_3^- f_4^- f_7^- f_{12}^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_7^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_9+E_7)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_1^+ f_6^+ +f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_6^+ +f_3^- f_4^- f_5^- f_9^- f_{10}^- f_1^+ -f_3^- f_4^- f_7^- f_{10}^- f_1^+ f_6^+ -f_3^- f_4^- f_5^- f_7^- f_{10}^- f_1^+ -f_3^- f_4^- f_9^- f_{12}^- f_1^+ f_6^+ -f_3^- f_4^- f_5^- f_9^- f_{12}^- f_1^+ +f_3^- f_4^- f_5^- f_7^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_7+E_9)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^- +f_2^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ -f_2^- f_5^- f_6^- f_7^- f_{12}^- f_4^+ -f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ -f_2^- f_3^- f_5^- f_6^- f_7^- f_{12}^- +f_2^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ -f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- +f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_9+E_7)(-E_{12}+E_{10})} \\
\frac{+f_5^- f_6^- f_9^- f_{12}^- f_1^+ f_4^+ +f_3^- f_5^- f_6^- f_9^- f_{12}^- f_1^+ -f_5^- f_6^- f_7^- f_{12}^- f_1^+ f_4^+ -f_3^- f_5^- f_6^- f_7^- f_{12}^- f_1^+ +f_5^- f_6^- f_7^- f_{10}^- f_1^+ f_4^+ -f_3^- f_5^- f_6^- f_9^- f_{10}^- f_1^+ -f_5^- f_6^- f_9^- f_{10}^- f_1^+ f_4^+ +f_3^- f_5^- f_6^- f_7^- f_{10}^- f_1^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_9+E_7)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^- -f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- +f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+ -f_3^- f_4^- f_8^- f_9^- f_{10}^- f_6^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_{12}^- -f_3^- f_4^- f_7^- f_8^- f_{12}^- f_6^+ +f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^- +f_3^- f_4^- f_8^- f_9^- f_{12}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_7+E_9)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_9^- f_{12}^- f_4^+ -f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^- +f_5^- f_6^- f_7^- f_8^- f_{10}^- f_4^+ +f_3^- f_5^- f_6^- f_7^- f_8^- f_{10}^- -f_3^- f_5^- f_6^- f_7^- f_8^- f_{12}^- -f_5^- f_6^- f_7^- f_8^- f_{12}^- f_4^+ +f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^- -f_5^- f_6^- f_8^- f_9^- f_{10}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_9+E_7)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_8^- f_9^- f_{10}^- f_6^+ -f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^- -f_1^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ +f_1^- f_3^- f_5^- f_8^- f_9^- f_{10}^- -f_1^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ -f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+ +f_1^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ +f_1^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+ +f_1^- f_7^- f_8^- f_{12}^- f_4^+ f_6^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_{12}^- +f_1^- f_5^- f_7^- f_8^- f_{12}^- f_4^+ -f_1^- f_3^- f_5^- f_8^- f_9^- f_{12}^- -f_1^- f_5^- f_8^- f_9^- f_{12}^- f_4^+ -f_1^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ -f_1^- f_3^- f_8^- f_9^- f_{12}^- f_6^+ +f_1^- f_3^- f_7^- f_8^- f_{12}^- f_6^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_9+E_7)(-E_{10}+E_{12})}
\end{array}\right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|1,8\}\{7,8|V|9,12\}\{9,10|V|11,2\}\{11,12|V|7,10\}\left(\vphantom{\frac{1}{1}}\right.$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_{11}^- f_6^+ f_9^+ - f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- f_{12}^- - f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ f_6^+ + f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_6^+ f_9^+ + f_1^- f_2^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- + f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_1^- f_2^- f_5^- f_7^- f_{11}^- f_4^+ f_9^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_9^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- - f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ - f_1^- f_2^- f_5^- f_7^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_7+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_{10}^+ - f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_6^+ + f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_{10}^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- - f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ + f_1^- f_2^- f_5^- f_{11}^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_6^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- + f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_6^+ f_{12}^+ - f_1^- f_2^- f_7^- f_{10}^- f_4^+ f_6^+ f_{12}^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_5^- f_7^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_2-E_7+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- + f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_3^- f_4^- f_7^- f_{11}^- f_6^+ f_9^+ - f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_9^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_2^+ - f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_2^+ f_6^+ + f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ + f_2^- f_3^- f_4^- f_5^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_2+E_7)}$$

$$\frac{+f_2^- f_3^- f_4^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ - f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+ - f_2^- f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- + f_2^- f_3^- f_4^- f_5^- f_{11}^- f}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7}$$

$$\frac{+f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ + f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- - f_2^- f_3^- f_4^- f_7^- f_{10}^- f_6^+ f_{12}^+ - f_2^- f_3^- f_4^- f_5^- f_7^- f}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_2-E_7+E_9+E_{12})(-E_{11}-E_{12}+E_7}$$

$$\frac{+f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_1^+ f_6^+ + f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_1^+ - f_3^- f_4^- f_7^- f_{11}^- f_1^+ f_6^+ f_9^+ - f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_3^- f_4^- f_5^- f_7^- f_{11}^- f_1^+ f_9^+ + f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_1^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_9-E_{12}+E_3+E_4+E_7)}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_1^+ + f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_1^+ f_6^+ - f_3^- f_4^- f_{11}^- f_{12}^- f_1^+ f_6^+ f_{10}^+ - f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_7-E_{10}+E_{11}}$$

$$\frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_1^+ f_6^+ + f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_1^+ - f_3^- f_4^- f_7^- f_{10}^- f_1^+ f_6^+ f_{12}^+ - f_3^- f_4^- f_5^- f_7^- f_{10}^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_9+E_{12})(-E_{11}-E_{12}+E_7}$$

$$\frac{+f_2^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ + f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- + f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ + f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- - f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ f_9^+ - f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ - f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_2^+ f_4^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_7+E_9+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ - f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_3^- f_5^- f_6^- f_7^- f}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}}$$

$$\frac{+f_2^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_{12}^+ - f_2^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ + f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_5^- f_6^- f_7^- f}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_2-E_7+E_9+E_{12})(-E_7-E_{10}+E_{11}}$$

$$\frac{+f_5^- f_6^- f_7^- f_9^- f_{10}^- f_1^+ f_4^+ + f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_1^+ f_4^+ + f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_1^+ - f_5^- f_6^- f_7^- f_{11}^- f_1^+ f_4^+ f_9^+ - f_1^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_1^+ - f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_3^- f_5^- f_6^- f_7^- f_{11}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_9-E_{10}+E_5+E_6+E_{11})(-E_5-E_6-E_7+E_1+E_9+E_{12})}$$

$$\frac{+f_5^- f_6^- f_{11}^- f_{12}^- f_1^+ f_4^+ f_{10}^+ + f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_1^+ f_{10}^+ - f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_1^+ - f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_1^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_{11}-E_{12}+E_7}$$

$$\frac{+f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_1^+ f_4^+ + f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_1^+ - f_5^- f_6^- f_7^- f_{10}^- f_1^+ f_4^+ f_{12}^+ - f_3^- f_5^- f_6^- f_7^- f_{10}^- f_1^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_9+E_{12})(-E_{11}-E_{12}+E_7}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^- - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ + f_3^- f_4^- f_8^- f_9^- f_{11}^- f_{12}^- f_6^+ + f_3^- f_4^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ - f_3^- f_4^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ + f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- - f_3^- f_4^- f_7^- f_8^- f_{10}^- f}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}}$$

$$\frac{+f_5^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+ - f_3^- f_5^- f_6^- f_8^- f_9^- f_{11}^- f_{12}^- - f_5^- f_6^- f_8^- f_9^- f_{11}^- f_{12}^- f_4^+ + f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ + f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- f_{10}^- - f_5^- f_6^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ + f_5^- f_6^- f_9^- f_{10}^- f_{12}^-}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_5^- f_6^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ + f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ - f_3^- f_5^- f_6^- f_7^- f_8^- f}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7}$$

$$\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- + f_5^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_5^- f_6^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ - f_3^- f_5^- f_6^- f_7^- f_8^- f}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_7}$$

$$\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+ + f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^- f_{12}^- - f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_{12}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}}$$

$$\frac{+f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_{12}^- + f_5^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ - f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_{12}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}}$$

$$\frac{+f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_6^+ f_7^+ + f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_7^+ - f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_9-E_{12}+E_2+E_7)(-E_3-E_4-E_7+E_1+E_9+E_{12})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_7}$$

$$\frac{+f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- + f_5^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_7^+ - f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ f_7^+}{(-E_5-E_6+E_3+E_4)(-E_9-E_{12}+E_2+E_7)(-E_5-E_6-E_7+E_1+E_9+E_{12})(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}}$$

$$\frac{+f_1^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+ - f_1^- f_3^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ - f_1^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{10}^- + f_1^- f_3^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- - f_1^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+ + f_1^- f_3^- f_8^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_5^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ + f_1^- f_8^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ + f_1^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_1^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ f_9^+ - f_1^- f_8^- f_9^- f_{11}^- f_{12}^- f_4^+ f_6^+ - f_1^- f_3^- f_8^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- + f_1^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+ + f_1^- f_3^- f_5^- f_7^- f_8^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_1^- f_3^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ + f_1^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_{10}^+ - f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- - f_1^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ f_6^+ + f_1^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_1^- f_5^- f_8^- f_{11}^- f_{12}^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_1^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ + f_1^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+ + f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+ f_{12}^+ - f_1^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_1^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ - f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_5^- f_7^- f_8^- f_{11}^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ f_{11}^+ + f_1^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_{11}^+ - f_1^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_1^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ - f_1^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+ + f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ f_{11}^+ + f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_1^- f_7^- f_9^- f_{10}^- f_4^+}{(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_1-E_9-E_{10}+E_5+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_1^- f_9^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_7^+ + f_1^- f_3^- f_9^- f_{11}^- f_{12}^- f_6^+ f_7^+ - f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ f_7^+ - f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_7^+ + f_1^- f_3^- f_5^- f_9^- f_{11}^- f_{12}^- f_7^+ - f_1^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_7^+ - f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ f_7^+ + f_1^- f_5^- f_9^- f_{11}^- f_{12}^-}{(-E_9-E_{12}+E_2+E_7)(-E_1-E_9-E_{12}+E_3+E_4+E_7)(-E_1-E_9-E_{12}+E_5+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_7+E_{10})}$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,10\}\{7,8|V|1,8\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_8^- f_9^- f_{11}^- \left(\begin{array}{c}
\frac{+f_1^- f_2^- f_5^- f_4^+ +f_1^- f_2^- f_3^- f_5^- +f_1^- f_2^- f_3^- f_6^+ +f_1^- f_2^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1+E_7)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_1^+ +f_3^- f_4^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1+E_7)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^+ +f_2^- f_3^- f_4^- f_5^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_2+E_7)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_5^- f_6^- f_1^+ f_4^+ +f_3^- f_5^- f_6^- f_1^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1+E_7)(-E_5-E_6+E_1+E_{10})(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- +f_2^- f_5^- f_6^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^+ +f_3^- f_4^- f_6^+ f_7^+}{(-E_3-E_4+E_5+E_6)(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_7+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_5^- f_6^- f_4^+ f_7^+ +f_3^- f_5^- f_6^- f_7^+}{(-E_5-E_6+E_3+E_4)(-E_7+E_1)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^- +f_3^- f_4^- f_{10}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_7+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_{10}^- +f_5^- f_6^- f_{10}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_{10}+E_2)(-E_5-E_6+E_1+E_{10})(-E_5-E_6+E_7+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_{12}^- f_6^+ +f_3^- f_4^- f_5^- f_{12}^-}{(-E_3-E_4+E_5+E_6)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_{12}^- +f_5^- f_6^- f_{12}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_{12}+E_2)(-E_5-E_6+E_1+E_{12})(-E_5-E_6+E_7+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- +f_2^- f_5^- f_7^- f_4^+ +f_2^- f_3^- f_7^- f_6^+ +f_2^- f_7^- f_4^+ f_6^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_5^- f_{10}^- f_4^+ +f_1^- f_{10}^- f_4^+ f_6^+ +f_1^- f_3^- f_5^- f_{10}^- +f_1^- f_3^- f_{10}^- f_6^+}{(-E_1+E_7)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_7^- f_{10}^- f_4^+ +f_3^- f_7^- f_{10}^- f_6^+ +f_7^- f_{10}^- f_4^+ f_6^+ +f_3^- f_5^- f_7^- f_{10}^-}{(-E_7+E_1)(-E_{10}+E_2)(-E_7-E_{10}+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_{12}^- +f_1^- f_5^- f_{12}^- f_4^+ +f_1^- f_3^- f_{12}^- f_6^+ +f_1^- f_{12}^- f_4^+ f_6^+}{(-E_1+E_7)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_6)(-E_{12}+E_{10})} \\
\frac{+f_5^- f_7^- f_{12}^- f_4^+ +f_3^- f_7^- f_{12}^- f_6^+ +f_7^- f_{12}^- f_4^+ f_6^+ +f_3^- f_5^- f_7^- f_{12}^-}{(-E_7+E_1)(-E_{12}+E_2)(-E_7-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_{10})}
\end{array}\right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,10\}\{7,8|V|1,8\}\{9,10|V|11,2\}\{11,12|V|9,12\}f_8^- f_{12}^- \left(\begin{array}{c}
\frac{+f_1^- f_2^- f_9^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_9^- f_6^+ -f_1^- f_2^- f_3^- f_5^- f_{11}^- -f_1^- f_2^- f_5^- f_{11}^- f_4^+ -f_1^- f_2^- f_{11}^- f_4^+ f_6^+ -f_1^- f_2^- f_3^- f_{11}^- f_6^+ +f_1^- f_2^- f_3^- f_5^- f_9^- +f_1^- f_2^- f_5^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1+E_7)(-E_2+E_{10})(-E_9+E_{11})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{11}^- -f_1^- f_3^- f_4^- f_5^- f_9^- -f_1^- f_3^- f_4^- f_9^- f_6^+ +f_1^- f_3^- f_4^- f_{11}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1+E_7)(-E_3-E_4+E_1+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_9^- f_2^+ f_6^+ +f_3^- f_4^- f_5^- f_9^- f_2^+ -f_3^- f_4^- f_5^- f_{11}^- f_2^+ -f_3^- f_4^- f_{11}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_2+E_7)(-E_2+E_{10})(-E_9+E_{11})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- +f_1^- f_5^- f_6^- f_9^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_{11}^- -f_1^- f_5^- f_6^- f_{11}^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1+E_7)(-E_5-E_6+E_1+E_{10})(-E_9+E_{11})} \\
\frac{+f_5^- f_6^- f_9^- f_2^+ f_4^+ -f_3^- f_5^- f_6^- f_{11}^- f_2^+ +f_3^- f_5^- f_6^- f_9^- f_2^+ -f_5^- f_6^- f_{11}^- f_2^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_2+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_6^+ -f_3^- f_4^- f_5^- f_7^- f_{11}^- -f_3^- f_4^- f_7^- f_{11}^- f_6^+ +f_3^- f_4^- f_5^- f_7^- f_9^-}{(-E_3-E_4+E_5+E_6)(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_7+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{11}^- -f_5^- f_6^- f_7^- f_9^- f_4^+ -f_3^- f_5^- f_6^- f_7^- f_9^- +f_5^- f_6^- f_7^- f_{11}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_7+E_1)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_7+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_{11}^- f_6^+ f_{10}^+ +f_3^- f_4^- f_5^- f_{11}^- f_{10}^+ -f_3^- f_4^- f_5^- f_9^- f_{10}^+ -f_3^- f_4^- f_9^- f_6^+ f_{10}^+}{(-E_3-E_4+E_5+E_6)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_7+E_{10})(-E_{11}+E_9)} \\
\frac{+f_5^- f_6^- f_{11}^- f_4^+ f_{10}^+ -f_3^- f_5^- f_6^- f_9^- f_{10}^+ +f_3^- f_5^- f_6^- f_{11}^- f_{10}^+ -f_5^- f_6^- f_9^- f_4^+ f_{10}^+}{(-E_5-E_6+E_3+E_4)(-E_{10}+E_2)(-E_5-E_6+E_1+E_{10})(-E_5-E_6+E_7+E_{10})(-E_{11}+E_9)} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_6^+ -f_2^- f_7^- f_{11}^- f_4^+ f_6^+ +f_2^- f_7^- f_9^- f_4^+ f_6^+ -f_2^- f_3^- f_5^- f_7^- f_{11}^- -f_2^- f_5^- f_7^- f_{11}^- f_4^+ -f_2^- f_3^- f_7^- f_{11}^- f_6^+ +f_2^- f_5^- f_7^- f_9^- f_4^+ +f_2^- f_3^- f_5^- f_7^- f_9^-}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_2+E_{10})(-E_9+E_{11})} \\
\frac{+f_1^- f_9^- f_{10}^- f_4^+ f_6^+ -f_1^- f_3^- f_{10}^- f_{11}^- f_6^+ -f_1^- f_{10}^- f_{11}^- f_4^+ f_6^+ -f_1^- f_5^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_3^- f_5^- f_{10}^- f_{11}^- +f_1^- f_3^- f_9^- f_{10}^- f_6^+ +f_1^- f_3^- f_5^- f_9^- f_{10}^- +f_1^- f_5^- f_9^- f_{10}^- f_4^+}{(-E_1+E_7)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_9+E_{11})} \\
\frac{+f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ +f_3^- f_5^- f_7^- f_{10}^- f_{11}^- -f_5^- f_7^- f_9^- f_{10}^- f_4^+ -f_3^- f_5^- f_7^- f_9^- f_{10}^- -f_3^- f_7^- f_9^- f_{10}^- f_6^+ +f_7^- f_{10}^- f_{11}^- f_4^+ f_6^+ -f_7^- f_9^- f_{10}^- f_4^+ f_6^+ +f_3^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_7+E_1)(-E_{10}+E_2)(-E_7-E_{10}+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_{11}+E_9)}
\end{array}\right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,12\}\{7,8|V|9,8\}\{9,10|V|11,2\}\{11,12|V|1,10\}f_8^- \begin{pmatrix}
\frac{+f_1^- f_2^- f_3^- f_7^- f_{11}^- f_6^+ - f_1^- f_2^- f_5^- f_7^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_6^+ + f_1^- f_2^- f_5^- f_7^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- + f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_6^+ - f_1^- f_2^- f_7^- f_{10}^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_7+E_9)(-E_2-E_{11}+E_7+E_{10})(-E_1-E_2+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ - f_1^- f_2^- f_3^- f_9^- f_{11}^- f_6^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ - f_1^- f_2^- f_9^- f_{11}^- f_4^+ f_6^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- - f_1^- f_2^- f_5^- f_9^- f_{11}^- f_4^+ + f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_9+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_{11}^- f_4^+ f_6^+ f_{10}^+ + f_1^- f_2^- f_3^- f_{11}^- f_6^+ f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2-E_{11}+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_{10}^- f_4^+ f_6^+ f_{12}^+ + f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_5^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_{10}^- f_6^+ f_{12}^+ - f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_{11}^- f_4^+ f_6^+ f_{12}^+ - f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_{11}^- f_6^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_{12})(-E_1-E_2+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_2^+ - f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- + f_3^- f_4^- f_7^- f_{10}^- f_2^+ f_6^+ - f_2^- f_3^- f_4^- f_7^- f_{11}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_1^+ f_6^+ - f_1^- f_3^- f_4^- f_5^- f_7^- f_{10}^- + f_3^- f_4^- f_5^- f_7^- f_{11}^- f_1^+ - f_1^- f_3^- f_4^- f_7^- f_{10}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_7+E_9)(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{11}^- f_6^+ + f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^- - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ - f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_9+E_7)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_1^+ f_6^+ - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ + f_3^- f_4^- f_5^- f_9^- f_{11}^- f_1^+ - f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_9+E_7)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_{11}^- f_6^+ f_{10}^+ + f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2-E_{11}+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_1^+ f_{10}^+ + f_3^- f_4^- f_{11}^- f_1^+ f_6^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^- f_6^+ f_{12}^+ + f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_5^- f_{11}^- f_1^+ f_{12}^+ - f_3^- f_4^- f_{11}^- f_1^+ f_6^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{12})(-E_3-E_4+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_2^+ f_6^+ f_{12}^+ + f_3^- f_4^- f_5^- f_{10}^- f_2^+ f_{12}^+ - f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^+ - f_2^- f_3^- f_4^- f_{11}^- f_6^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{12})(-E_3-E_4+E_9+E_{12})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{10}^- f_2^+ + f_5^- f_6^- f_7^- f_{10}^- f_2^+ f_4^+ - f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- - f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{11}^- f_1^+ - f_1^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_7^- f_{10}^- + f_5^- f_6^- f_7^- f_{11}^- f_1^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_7+E_9)(-E_5-E_6-E_{11}+E_1+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- f_2^+ + f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_4^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- - f_2^- f_5^- f_6^- f_9^- f_{11}^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_9+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6+E_9+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- - f_3^- f_5^- f_6^- f_9^- f_{11}^- f_1^+ - f_5^- f_6^- f_9^- f_{11}^- f_1^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_9+E_7)(-E_1-E_9-E_{10}+E_5+E_6+E_{11})(-E_5-E_6+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{10}^+ + f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_{10}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2-E_{11}+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_5-E_6-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_{11}^- f_1^+ f_{10}^+ + f_5^- f_6^- f_{11}^- f_1^+ f_4^+ f_{10}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{11}+E_1+E_7+E_{10})(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_{11}^- f_1^+ f_4^+ f_{12}^+ - f_1^- f_5^- f_6^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{12}^+ + f_3^- f_5^- f_6^- f_{11}^- f_1^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_6+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_{12}^+ + f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^+ - f_5^- f_6^- f_{10}^- f_2^+ f_4^+ f_{12}^+ - f_3^- f_5^- f_6^- f_{10}^- f_2^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_6+E_9+E_{12})(-E_2-E_{11}-E_{12}+E_5+E_6+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- + f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- + f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_5-E_6-E_{11}+E_1+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^- + f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_9+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_4^+ + f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^-}{(-E_5-E_6+E_3+E_4)(-E_9+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_5-E_6+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_6^+ f_{12}^+ + f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{12})(-E_3-E_4+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^+ + f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_6+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})(-E_5-E_6-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_7^- f_{10}^- f_4^+ f_6^+ f_{11}^+ + f_1^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^+ + f_1^- f_5^- f_7^- f_{10}^- f_4^+ f_{11}^+ + f_1^- f_3^- f_7^- f_{10}^- f_6^+ f_{11}^+}{(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_1-E_7-E_{10}+E_5+E_6+E_{11})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_7^- f_{10}^- f_{12}^- f_2^+ f_4^+ f_6^+ + f_3^- f_7^- f_{10}^- f_{12}^- f_2^+ f_6^+ - f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+ + f_3^- f_5^- f_7^- f_{10}^- f_{12}^- f_2^+ - f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- + f_5^- f_7^- f_{10}^- f_{12}^- f_2^+ f_4^+ - f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ + f_3^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- + f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+ + f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+}{(-E_7+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_7-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+ + f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_{11}^+ + f_1^- f_9^- f_{10}^- f_4^+ f_6^+ f_{11}^+ + f_1^- f_3^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_9+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_1-E_9-E_{10}+E_5+E_6+E_{11})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_2^+ + f_2^- f_3^- f_5^- f_9^- f_{11}^- f_{12}^- - f_5^- f_9^- f_{10}^- f_{12}^- f_2^+ f_4^+ + f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_9^- f_{10}^- f_{12}^- f_2^+ f_4^+ f_6^+ - f_3^- f_9^- f_{10}^- f_{12}^- f_2^+ f_6^+ + f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_9+E_7)(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_1+E_2)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_6)} \\
\frac{+f_3^- f_9^- f_{10}^- f_{11}^- f_{12}^- f_6^+ + f_9^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+ + f_3^- f_5^- f_9^- f_{10}^- f_{11}^- f_{12}^- + f_5^- f_9^- f_{10}^- f_{11}^- f_{12}^- f_4^+}{(-E_9+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_3^- f_7^- f_{11}^- f_{12}^- f_1^+ f_6^+ + f_5^- f_7^- f_{11}^- f_{12}^- f_1^+ f_4^+ + f_3^- f_5^- f_7^- f_{11}^- f_{12}^- f_1^+ + f_7^- f_{11}^- f_{12}^- f_1^+ f_4^+ f_6^+ - f_1^- f_7^- f_{10}^- f_{12}^- f_4^+ f_6^+ - f_1^- f_3^- f_7^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_5^- f_7^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_7^- f_{10}^- f_{12}^-}{(-E_7+E_9)(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_3^- f_9^- f_{11}^- f_{12}^- f_1^+ f_6^+ - f_9^- f_{11}^- f_{12}^- f_1^+ f_4^+ f_6^+ - f_3^- f_5^- f_9^- f_{11}^- f_{12}^- f_1^+ + f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- + f_1^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_5^- f_9^- f_{11}^- f_{12}^- f_1^+ f_4^+ + f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+}{(-E_9+E_7)(-E_9-E_{12}+E_1+E_2)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_6)(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ + f_2^- f_3^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ + f_2^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_{10}^+ + f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_{10}^+}{(-E_2-E_{11}+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_1+E_{10})(-E_2-E_{11}-E_{12}+E_3+E_4+E_{10})(-E_2-E_{11}-E_{12}+E_5+E_6+E_{10})}
\end{pmatrix}$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,12\}\{7,8|V|9,2\}\{9,10|V|11,10\}\{11,12|V|1,8\}f_{10}^{-}\left(\begin{matrix}
\dfrac{+f_1^-f_2^-f_3^-f_7^-f_8^-f_6^++f_1^-f_2^-f_7^-f_8^-f_4^+f_6^++f_1^-f_2^-f_3^-f_5^-f_7^-f_8^-+f_1^-f_2^-f_5^-f_7^-f_8^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_1-E_2+E_7+E_{12})}\\
\dfrac{+f_1^-f_2^-f_5^-f_9^-f_4^+f_7^++f_1^-f_2^-f_9^-f_4^+f_6^+f_7^++f_1^-f_2^-f_3^-f_9^-f_6^+f_7^++f_1^-f_2^-f_3^-f_5^-f_9^-f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_1-E_2+E_7+E_{12})}\\
\dfrac{+f_1^-f_2^-f_8^-f_9^-f_4^+f_6^++f_1^-f_2^-f_3^-f_5^-f_8^-f_9^-+f_1^-f_2^-f_5^-f_8^-f_9^-f_4^++f_1^-f_2^-f_3^-f_8^-f_9^-f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_1-E_8+E_9+E_{12})}\\
\dfrac{+f_1^-f_2^-f_5^-f_{11}^-f_4^+f_7^++f_1^-f_2^-f_3^-f_5^-f_{11}^-f_7^++f_1^-f_2^-f_{11}^-f_4^+f_6^+f_7^++f_1^-f_2^-f_3^-f_{11}^-f_6^+f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_1-E_2+E_7+E_{12})}\\
\dfrac{+f_1^-f_2^-f_3^-f_8^-f_{11}^-f_6^++f_1^-f_2^-f_3^-f_5^-f_8^-f_{11}^-+f_1^-f_2^-f_8^-f_{11}^-f_4^+f_6^++f_1^-f_2^-f_5^-f_8^-f_{11}^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_1-E_8+E_{11}+E_{12})}\\
\dfrac{+f_1^-f_2^-f_3^-f_5^-f_9^-f_{12}^-+f_1^-f_2^-f_5^-f_9^-f_{12}^-f_4^++f_1^-f_2^-f_9^-f_{12}^-f_4^+f_6^++f_1^-f_2^-f_3^-f_9^-f_{12}^-f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_9+E_{11})(-E_1-E_2+E_7+E_{12})(-E_9-E_{12}+E_1+E_8)}\\
\dfrac{+f_1^-f_2^-f_3^-f_{11}^-f_{12}^-f_6^++f_1^-f_2^-f_3^-f_5^-f_{11}^-f_{12}^-+f_1^-f_2^-f_{11}^-f_{12}^-f_4^+f_6^++f_1^-f_2^-f_5^-f_{11}^-f_{12}^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_{11}+E_9)(-E_1-E_2+E_7+E_{12})(-E_{11}-E_{12}+E_1+E_8)}\\
\dfrac{+f_1^-f_2^-f_3^-f_5^-f_8^-f_{12}^++f_1^-f_2^-f_8^-f_4^+f_6^+f_{12}^++f_1^-f_2^-f_3^-f_8^-f_6^+f_{12}^++f_1^-f_2^-f_5^-f_8^-f_4^+f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_{12})(-E_1-E_8+E_9+E_{12})(-E_1-E_8+E_{11}+E_{12})}\\
\dfrac{+f_2^-f_3^-f_4^-f_5^-f_7^-f_8^-+f_2^-f_3^-f_4^-f_7^-f_8^-f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_3-E_4+E_7+E_{12})}\\
\dfrac{+f_2^-f_3^-f_4^-f_5^-f_9^-f_7^++f_2^-f_3^-f_4^-f_9^-f_6^+f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_7+E_{12})}\\
\dfrac{+f_2^-f_3^-f_4^-f_5^-f_8^-f_9^-+f_2^-f_3^-f_4^-f_8^-f_9^-f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4-E_8+E_2+E_9+E_{12})}\\
\dfrac{+f_3^-f_4^-f_5^-f_7^-f_8^-f_1^++f_3^-f_4^-f_7^-f_8^-f_1^+f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_7-E_8+E_3+E_4+E_{11})(-E_3-E_4+E_7+E_{12})}\\
\dfrac{+f_3^-f_4^-f_5^-f_9^-f_1^+f_7^++f_3^-f_4^-f_9^-f_1^+f_6^+f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_7+E_{12})}\\
\dfrac{+f_3^-f_4^-f_8^-f_9^-f_1^+f_6^++f_3^-f_4^-f_5^-f_8^-f_9^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_1-E_8+E_9+E_{12})}\\
\dfrac{+f_2^-f_3^-f_4^-f_{11}^-f_6^+f_7^++f_2^-f_3^-f_4^-f_5^-f_{11}^-f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_7+E_{12})}\\
\dfrac{+f_2^-f_3^-f_4^-f_8^-f_{11}^-f_6^++f_2^-f_3^-f_4^-f_5^-f_8^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}\\
\dfrac{+f_3^-f_4^-f_5^-f_{11}^-f_1^+f_7^++f_3^-f_4^-f_{11}^-f_1^+f_6^+f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_7+E_{12})}\\
\dfrac{+f_3^-f_4^-f_8^-f_{11}^-f_1^+f_6^++f_3^-f_4^-f_5^-f_8^-f_{11}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_1-E_8+E_{11}+E_{12})}\\
\dfrac{+f_3^-f_4^-f_5^-f_9^-f_{12}^-f_1^++f_3^-f_4^-f_9^-f_{12}^-f_1^+f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_9+E_{11})(-E_3-E_4+E_7+E_{12})(-E_9-E_{12}+E_1+E_8)}\\
\dfrac{+f_2^-f_3^-f_4^-f_9^-f_{12}^-f_6^++f_2^-f_3^-f_4^-f_5^-f_9^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_9+E_{11})(-E_3-E_4+E_7+E_{12})(-E_2-E_9-E_{12}+E_3+E_4+E_8)}\\
\dfrac{+f_3^-f_4^-f_{11}^-f_{12}^-f_1^+f_6^++f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_{11}+E_9)(-E_3-E_4+E_7+E_{12})(-E_{11}-E_{12}+E_1+E_8)}\\
\dfrac{+f_2^-f_3^-f_4^-f_5^-f_{11}^-f_{12}^-+f_2^-f_3^-f_4^-f_{11}^-f_{12}^-f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_{11}+E_9)(-E_3-E_4+E_7+E_{12})(-E_2-E_{11}-E_{12}+E_3+E_4+E_8)}\\
\dfrac{+f_3^-f_4^-f_8^-f_1^+f_6^+f_{12}^++f_3^-f_4^-f_5^-f_8^-f_1^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{12})(-E_1-E_8+E_9+E_{12})(-E_1-E_8+E_{11}+E_{12})}\\
\dfrac{+f_2^-f_3^-f_4^-f_5^-f_8^-f_{12}^++f_2^-f_3^-f_4^-f_8^-f_6^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{12})(-E_3-E_4-E_8+E_2+E_9+E_{12})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}\\
\dfrac{+f_2^-f_3^-f_5^-f_6^-f_7^-f_8^-+f_2^-f_5^-f_6^-f_7^-f_8^-f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\dfrac{+f_2^-f_3^-f_5^-f_6^-f_9^-f_7^++f_2^-f_5^-f_6^-f_9^-f_4^+f_7^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\dfrac{+f_2^-f_5^-f_6^-f_8^-f_9^-f_4^++f_2^-f_3^-f_5^-f_6^-f_8^-f_9^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_5-E_6-E_8+E_2+E_9+E_{12})}\\
\dfrac{+f_5^-f_6^-f_7^-f_8^-f_1^+f_4^++f_3^-f_5^-f_6^-f_7^-f_8^-f_1^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1-E_7-E_8+E_5+E_6+E_9)(-E_1-E_7-E_8+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\dfrac{+f_3^-f_5^-f_6^-f_9^-f_1^+f_7^++f_5^-f_6^-f_9^-f_1^+f_4^+f_7^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\dfrac{+f_3^-f_5^-f_6^-f_8^-f_9^-f_1^++f_5^-f_6^-f_8^-f_9^-f_1^+f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_1-E_8+E_9+E_{12})}\\
\dfrac{+f_2^-f_3^-f_5^-f_6^-f_{11}^-f_7^++f_2^-f_5^-f_6^-f_{11}^-f_4^+f_7^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_5-E_6+E_7+E_{12})}\\
\dfrac{+f_2^-f_5^-f_6^-f_8^-f_{11}^-f_4^++f_2^-f_3^-f_5^-f_6^-f_8^-f_{11}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_5-E_6-E_8+E_2+E_{11}+E_{12})}\\
\dfrac{+f_5^-f_6^-f_{11}^-f_1^+f_4^+f_7^++f_3^-f_5^-f_6^-f_{11}^-f_1^+f_7^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_5-E_6+E_7+E_{12})}\\
\dfrac{+f_5^-f_6^-f_8^-f_{11}^-f_1^+f_4^++f_3^-f_5^-f_6^-f_8^-f_{11}^-f_1^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_1-E_8+E_{11}+E_{12})}\\
\dfrac{+f_5^-f_6^-f_9^-f_{12}^-f_1^+f_4^++f_3^-f_5^-f_6^-f_9^-f_{12}^-f_1^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_9+E_{11})(-E_5-E_6+E_7+E_{12})(-E_9-E_{12}+E_1+E_8)}\\
\dfrac{+f_2^-f_5^-f_6^-f_9^-f_{12}^-f_4^++f_2^-f_3^-f_5^-f_6^-f_9^-f_{12}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_9+E_{11})(-E_5-E_6+E_7+E_{12})(-E_2-E_9-E_{12}+E_5+E_6+E_8)}\\
\dfrac{+f_3^-f_5^-f_6^-f_{11}^-f_{12}^-f_1^++f_5^-f_6^-f_{11}^-f_{12}^-f_1^+f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_{11}+E_9)(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_1+E_8)}\\
\dfrac{+f_2^-f_3^-f_5^-f_6^-f_{11}^-f_{12}^-+f_2^-f_5^-f_6^-f_{11}^-f_{12}^-f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_{11}+E_9)(-E_5-E_6+E_7+E_{12})(-E_2-E_{11}-E_{12}+E_5+E_6+E_8)}\\
\dfrac{+f_5^-f_6^-f_8^-f_1^+f_4^+f_{12}^++f_3^-f_5^-f_6^-f_8^-f_1^+f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_1-E_8+E_9+E_{12})(-E_1-E_8+E_{11}+E_{12})}\\
\dfrac{+f_2^-f_5^-f_6^-f_8^-f_4^+f_{12}^++f_2^-f_3^-f_5^-f_6^-f_8^-f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_6-E_8+E_2+E_9+E_{12})(-E_5-E_6-E_8+E_2+E_{11}+E_{12})}\\
\dfrac{+f_3^-f_4^-f_7^-f_8^-f_6^+f_9^++f_3^-f_4^-f_5^-f_7^-f_8^-f_9^+}{(-E_3-E_4+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_7+E_{12})}\\
\dfrac{+f_3^-f_5^-f_6^-f_7^-f_8^-f_9^++f_5^-f_6^-f_7^-f_8^-f_4^+f_9^+}{(-E_5-E_6+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_5-E_6-E_9+E_1+E_7+E_8)(-E_9+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\dfrac{+f_3^-f_4^-f_5^-f_7^-f_8^-f_{11}^++f_3^-f_4^-f_7^-f_8^-f_6^+f_{11}^+}{(-E_3-E_4+E_5+E_6)(-E_7-E_8+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_7+E_{12})}\\
\dfrac{+f_3^-f_5^-f_6^-f_7^-f_8^-f_{11}^++f_5^-f_6^-f_7^-f_8^-f_4^+f_{11}^+}{(-E_5-E_6+E_3+E_4)(-E_7-E_8+E_2+E_{11})(-E_5-E_6-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)(-E_5-E_6+E_7+E_{12})}\\
\dfrac{+f_3^-f_4^-f_5^-f_8^-f_9^+f_{12}^++f_3^-f_4^-f_8^-f_6^+f_9^+f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_9+E_{11})(-E_3-E_4+E_7+E_{12})(-E_9-E_{12}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{12})}\\
\dfrac{+f_3^-f_4^-f_8^-f_6^+f_{11}^+f_{12}^++f_3^-f_4^-f_5^-f_8^-f_{11}^+f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_{11}+E_9)(-E_3-E_4+E_7+E_{12})(-E_{11}-E_{12}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}\\
\dfrac{+f_5^-f_6^-f_8^-f_4^+f_9^+f_{12}^++f_3^-f_5^-f_6^-f_8^-f_9^+f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_9+E_{11})(-E_5-E_6+E_7+E_{12})(-E_9-E_{12}+E_1+E_8)(-E_5-E_6-E_8+E_2+E_9+E_{12})}\\
\dfrac{+f_5^-f_6^-f_8^-f_4^+f_{11}^+f_{12}^++f_3^-f_5^-f_6^-f_8^-f_{11}^+f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_{11}+E_9)(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_1+E_8)(-E_5-E_6-E_8+E_2+E_{11}+E_{12})}
\end{matrix}\right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,12\}\{7,8|V|1,10\}\{9,10|V|11,2\}\{11,12|V|9,8\}\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ + f_1^- f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- - f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+ - f_1^- f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ - f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_1-E_2-E_{11}+E_7+E_8+E_9)(-E_1-E_2+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- - f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ - f_1^- f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- + f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_6^+ + f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_6^+ f_8^+ + f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_6^+ f_8^+ + f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_8^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_8^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ f_8^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_8^+ - f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_6^+ f_9^+ + f_1^- f_2^- f_3^- f_7^- f_{11}^- f_6^+ f_9^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_9^+ + f_1^- f_2^- f_5^- f_7^- f_{11}^- f_4^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_{11}^- f_8^+ f_9^+ + f_1^- f_2^- f_{11}^- f_4^+ f_6^+ f_8^+ f_9^+ + f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_8^+ f_9^+ + f_1^- f_2^- f_3^- f_{11}^- f_6^+ f_8^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ f_{12}^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_{12}^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_6^+ f_{12}^+ - f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_6^+ f_{12}^+ - f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_{11}^- f_9^+ f_{12}^+ + f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_9^+ f_{12}^+ + f_1^- f_2^- f_3^- f_{11}^- f_6^+ f_9^+ f_{12}^+ + f_1^- f_2^- f_{11}^- f_4^+ f_6^+ f_9^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_8^- f_{11}^- f_6^+ f_{12}^+ + f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_6^+ f_{12}^+ + f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_8^- f_9^- f_4^+ f_6^+ f_{12}^+ - f_1^- f_2^- f_3^- f_8^- f_9^- f_6^+ f_{12}^+ - f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- + f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ - f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- - f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ + f_1^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- - f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_8^+ + f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_6^+ f_8^+ - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+ - f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_2^+ + f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_6^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_2^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_2^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_6^+ - f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_2^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ f_8^+ + f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_6^+ f_8^+ - f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+ f_8^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_2^+ f_6^+ f_9^+ + f_3^- f_4^- f_5^- f_7^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_2^+ f_8^+ f_9^+ + f_3^- f_4^- f_{11}^- f_2^+ f_6^+ f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_9^+ + f_1^- f_3^- f_4^- f_7^- f_{11}^- f_6^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{11}^- f_6^+ f_8^+ f_9^+ + f_1^- f_3^- f_4^- f_5^- f_{11}^- f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+ f_{12}^+ + f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_6^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_2^+ f_9^+ f_{12}^+ + f_3^- f_4^- f_{11}^- f_2^+ f_6^+ f_9^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_{12}^+ + f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_6^+ f_{12}^+ - f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_7+E_{12})(-E_1-E_{10}-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{11}^- f_9^+ f_{12}^+ + f_1^- f_3^- f_4^- f_{11}^- f_6^+ f_9^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_6^+ f_{12}^+ + f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+ f_{12}^+ - f_3^- f_4^- f_8^- f_9^- f_2^+ f_6^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_{11}^- f_6^+ f_{12}^+ + f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^+ - f_1^- f_3^- f_4^- f_8^- f_9^- f_6^+ f_{12}^+ - f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{12})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- + f_1^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ - f_1^- f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_9^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_7-E_8+E_1+E_{10})(-E_5-E_6-E_{11}+E_7+E_8+E_9)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- - f_1^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1-E_{10}+E_7+E_8)(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ - f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ - f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_8^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1-E_{10}+E_7+E_8)(-E_1-E_9-E_{10}+E_5+E_6+E_{11})(-E_5-E_6-E_8+E_1+E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_2^+ + f_5^- f_6^- f_7^- f_8^- f_{11}^- f_2^+ f_4^+ - f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- f_2^+ - f_5^- f_6^- f_7^- f_8^- f_9^- f_2^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2-E_7-E_8+E_5+E_6+E_{10})(-E_5-E_6-E_{11}+E_7+E_8+E_9)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_9^- f_{10}^- f_2^+ f_4^+ - f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_2^+ + f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_2^+ - f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_2^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{10}+E_2+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_2^+ f_8^+ + f_5^- f_6^- f_{10}^- f_{11}^- f_2^+ f_4^+ f_8^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_8^+ - f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_4^+ f_8^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{10}+E_2+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{11}^- f_2^+ f_9^+ + f_5^- f_6^- f_7^- f_{11}^- f_2^+ f_4^+ f_9^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_{11}^- f_2^+ f_8^+ f_9^+ + f_5^- f_6^- f_{11}^- f_2^+ f_4^+ f_8^+ f_9^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ + f_1^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ f_9^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{11}+E_7+E_8+E_9)(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+ f_9^+ + f_1^- f_3^- f_5^- f_6^- f_{11}^- f_8^+ f_9^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{11}+E_7+E_8+E_9)(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_4^+ f_{12}^+ + f_3^- f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_{12}^+ - f_5^- f_6^- f_{10}^- f_{11}^- f_2^+ f_4^+ f_{12}^+ - f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_2^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_3^- f_5^- f_6^- f_{11}^- f_2^+ f_9^+ f_{12}^+ + f_5^- f_6^- f_{11}^- f_2^+ f_4^+ f_9^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^+ - f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1-E_9-E_{10}+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})(-E_1-E_{10}-E_{12}+E_5+E_6+E_8)} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_{11}^- f_9^+ f_{12}^+ + f_1^- f_5^- f_6^- f_{11}^- f_4^+ f_9^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_4^+ f_{12}^+ + f_3^- f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_{12}^+ - f_3^- f_5^- f_6^- f_8^- f_9^- f_2^+ f_{12}^+ - f_5^- f_6^- f_8^- f_9^- f_2^+ f_4^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+ + f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_{12}^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ - f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_6-E_8+E_1+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_{10}^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{10}^+}{(-E_3-E_4+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- f_{10}^+ + f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+ - f_5^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ - f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+}{(-E_5-E_6+E_3+E_4)(-E_7-E_8+E_1+E_{10})(-E_5-E_6-E_{10}+E_2+E_7+E_8)(-E_7-E_8-E_9+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{11}^- f_9^+ f_{10}^+ + f_3^- f_4^- f_7^- f_{11}^- f_6^+ f_9^+ f_{10}^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_6^+ f_8^+ f_9^+ f_{10}^+ + f_3^- f_4^- f_5^- f_{11}^- f_8^+ f_9^+ f_{10}^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ f_{10}^+ + f_5^- f_6^- f_7^- f_{11}^- f_4^+ f_9^+ f_{10}^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{11}+E_7+E_8+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_5^- f_6^- f_{11}^- f_4^+ f_8^+ f_9^+ f_{10}^+ + f_3^- f_5^- f_6^- f_{11}^- f_8^+ f_9^+ f_{10}^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{11}+E_7+E_8+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_6^+ f_9^+ f_{10}^+ f_{12}^+ + f_3^- f_4^- f_5^- f_{11}^- f_9^+ f_{10}^+ f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_5^- f_6^- f_{11}^- f_4^+ f_9^+ f_{10}^+ f_{12}^+ + f_3^- f_5^- f_6^- f_{11}^- f_9^+ f_{10}^+ f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)}
\end{array}\right.$$

$$
+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,10\}\{7,8|V|9,12\}\{9,10|V|1,8\}\{11,12|V|11,2\}f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_9^- f_4^+ f_7^+ +f_1^- f_2^- f_3^- f_9^- f_6^+ f_7^+ +f_1^- f_2^- f_9^- f_4^+ f_6^+ f_7^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_7^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_6^+ -f_1^- f_2^- f_7^- f_8^- f_4^+ f_6^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- -f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_9^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_8^- f_9^- f_6^+ +f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_6^+ f_{10}^+ +f_1^- f_2^- f_5^- f_8^- f_4^+ f_{10}^+ +f_1^- f_2^- f_8^- f_4^+ f_6^+ f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_{10}^+ -f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ -f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- -f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_{10})(-E_1-E_8+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_2^+ f_6^+ f_7^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_2^+ -f_3^- f_4^- f_7^- f_8^- f_2^+ f_6^+ +f_3^- f_4^- f_5^- f_9^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_2^+ f_6^+ +f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_7^+ +f_1^- f_3^- f_4^- f_9^- f_6^+ f_7^+ -f_1^- f_3^- f_4^- f_7^- f_8^- f_6^+ -f_1^- f_3^- f_4^- f_5^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- +f_1^- f_3^- f_4^- f_8^- f_9^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_6^+ f_{10}^+ +f_1^- f_3^- f_4^- f_5^- f_8^- f_{10}^+ -f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- -f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_1-E_8+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_2^+ f_6^+ f_{10}^+ +f_3^- f_4^- f_5^- f_8^- f_2^+ f_{10}^+ -f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+ -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_2^+ f_7^+ -f_5^- f_6^- f_7^- f_8^- f_2^+ f_4^+ +f_5^- f_6^- f_9^- f_2^+ f_4^+ f_7^+ -f_3^- f_5^- f_6^- f_7^- f_8^- f_2^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_9^- f_2^+ +f_5^- f_6^- f_8^- f_9^- f_2^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_7^- f_8^- f_4^+ +f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- -f_1^- f_3^- f_5^- f_6^- f_9^- f_7^+ -f_1^- f_5^- f_6^- f_9^- f_4^+ f_7^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1-E_7-E_8+E_5+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- +f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_9+E_1+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^+ +f_1^- f_5^- f_6^- f_8^- f_4^+ f_{10}^+ -f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_1-E_8+E_9+E_{10})(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_2^+ f_4^+ f_{10}^+ +f_3^- f_5^- f_6^- f_8^- f_2^+ f_{10}^+ -f_3^- f_5^- f_6^- f_9^- f_{10}^- f_2^+ -f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_6^+ f_7^+ f_8^+ +f_3^- f_4^- f_5^- f_9^- f_7^+ f_8^+}{(-E_3-E_4+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_7^+ f_8^+ +f_5^- f_6^- f_9^- f_4^+ f_7^+ f_8^+}{(-E_5-E_6+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_5-E_6-E_9+E_1+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ +f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_3-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{12}^+ +f_3^- f_4^- f_7^- f_8^- f_6^+ f_{12}^+ -f_3^- f_4^- f_5^- f_9^- f_7^+ f_{12}^+ -f_3^- f_4^- f_9^- f_6^+ f_7^+ f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{10}^+ f_{12}^+ -f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_{12}^+ -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^+ +f_3^- f_4^- f_8^- f_6^+ f_{10}^+ f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ +f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_8^- f_4^+ f_{12}^+ -f_5^- f_6^- f_9^- f_4^+ f_7^+ f_{12}^+ +f_3^- f_5^- f_6^- f_7^- f_8^- f_{12}^+ -f_3^- f_5^- f_6^- f_9^- f_7^+ f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_{12}+E_2)(-E_5-E_6+E_1+E_{12})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+ -f_3^- f_5^- f_6^- f_8^- f_{10}^+ f_{12}^+ -f_5^- f_6^- f_8^- f_4^+ f_{10}^+ f_{12}^+ +f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_{12}+E_2)(-E_5-E_6+E_1+E_{12})(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^+ +f_3^- f_4^- f_8^- f_9^- f_6^+ f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_9-E_{12}+E_7+E_8)(-E_3-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_9^- f_4^+ f_{12}^+ +f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_{12}+E_2)(-E_5-E_6+E_1+E_{12})(-E_9-E_{12}+E_7+E_8)(-E_5-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_7^- f_8^- f_4^+ f_6^+ f_9^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_9^+ +f_1^- f_3^- f_7^- f_8^- f_6^+ f_9^+ +f_1^- f_5^- f_7^- f_8^- f_4^+ f_9^+}{(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_7-E_8+E_5+E_6+E_9)(-E_1-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_8^- f_{10}^- f_2^+ +f_5^- f_7^- f_8^- f_{10}^- f_2^+ f_4^+ +f_3^- f_7^- f_8^- f_{10}^- f_2^+ f_6^+ -f_5^- f_7^- f_9^- f_{10}^- f_2^+ f_4^+ +f_7^- f_8^- f_{10}^- f_2^+ f_4^+ f_6^+ -f_7^- f_9^- f_{10}^- f_2^+ f_4^+ f_6^+ -f_3^- f_7^- f_9^- f_{10}^- f_2^+ f_6^+ -f_3^- f_5^- f_7^- f_9^- f_{10}^- f_2^+}{(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_2+E_{12})} \\
\frac{+f_7^- f_9^- f_{10}^- f_4^+ f_6^+ f_8^+ +f_3^- f_5^- f_7^- f_9^- f_{10}^- f_8^+ +f_5^- f_7^- f_9^- f_{10}^- f_4^+ f_8^+ +f_3^- f_7^- f_9^- f_{10}^- f_6^+ f_8^+}{(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_1+E_8)(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_8^+ +f_2^- f_9^- f_{10}^- f_4^+ f_6^+ f_8^+ +f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_8^+ +f_2^- f_3^- f_5^- f_9^- f_{10}^- f_8^+}{(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_1+E_8)(-E_2-E_9-E_{10}+E_3+E_4+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_2+E_{12})} \\
\frac{+f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+ -f_1^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ -f_1^- f_3^- f_5^- f_7^- f_9^- f_{10}^- +f_1^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ -f_1^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ +f_1^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ -f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_1-E_8+E_9+E_{10})(-E_7-E_{10}+E_1+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^+ +f_5^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_3^- f_7^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_7^- f_9^- f_{10}^- f_4^+ f_6^+ f_{12}^+ -f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ -f_3^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+ -f_7^- f_8^- f_{10}^- f_4^+ f_6^+ f_{12}^+ -f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_7-E_{10}+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_{12}+E_2)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_1+E_{12})} \\
\frac{+f_1^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ +f_1^- f_3^- f_5^- f_8^- f_9^- f_{12}^- +f_1^- f_5^- f_8^- f_9^- f_{12}^- f_4^+ +f_1^- f_3^- f_8^- f_9^- f_{12}^- f_6^+}{(-E_1-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_6)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^- f_5^- f_8^- f_{12}^- f_4^+ f_{10}^+ +f_1^- f_3^- f_8^- f_{12}^- f_6^+ f_{10}^+ +f_1^- f_3^- f_5^- f_8^- f_{12}^- f_{10}^+ -f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ -f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ -f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- +f_1^- f_8^- f_{12}^- f_4^+ f_6^+ f_{10}^+ -f_1^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_1-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_6)(-E_1-E_{12}+E_7+E_{10})} \\
\frac{+f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ +f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ +f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+ +f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ f_8^+}{(-E_9-E_{10}+E_1+E_8)(-E_{12}+E_2)(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_3+E_4+E_8)(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)} \\
\frac{+f_1^- f_5^- f_7^- f_8^- f_{12}^- f_4^+ +f_1^- f_3^- f_7^- f_8^- f_{12}^- f_6^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_{12}^- +f_1^- f_7^- f_8^- f_{12}^- f_4^+ f_6^+ -f_1^- f_9^- f_{12}^- f_4^+ f_6^+ f_7^+ -f_1^- f_5^- f_9^- f_{12}^- f_4^+ f_7^+ -f_1^- f_3^- f_9^- f_{12}^- f_6^+ f_7^+ -f_1^- f_3^- f_5^- f_9^- f_{12}^- f_7^+}{(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_1-E_{12}+E_7+E_{10})}
\end{array}\right)
$$

$$
+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|7,10\}\{9,10|V|11,12\}\{11,12|V|9,2\}f_5^- f_7^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_{11}^- f_{12}^- -f_1^- f_2^- f_9^- f_4^+ f_{12}^+ -f_2^- f_3^- f_4^- f_{11}^- f_{12}^- +f_2^- f_3^- f_4^- f_9^- f_{11}^- +f_2^- f_3^- f_4^- f_9^- f_{12}^+ +f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_2^- f_9^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_9^- f_{12}^+ -f_1^- f_2^- f_3^- f_9^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_2+E_{10})(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_{12}^+ -f_3^- f_4^- f_{11}^- f_{12}^- f_1^+ +f_3^- f_4^- f_9^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4-E_9+E_1+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{12}^+ -f_1^- f_3^- f_6^- f_9^- f_{11}^- +f_1^- f_3^- f_6^- f_{11}^- f_{12}^- -f_1^- f_3^- f_6^- f_9^- f_{12}^+ -f_1^- f_6^- f_9^- f_4^+ f_{12}^+ +f_3^- f_4^- f_6^- f_9^- f_{11}^- +f_1^- f_6^- f_{11}^- f_{12}^- f_4^+ -f_3^- f_4^- f_6^- f_{11}^- f_{12}^- -f_1^- f_6^- f_9^- f_{11}^- f_4^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_6+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_8^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_3^- f_8^- f_9^- f_{11}^- -f_1^- f_8^- f_9^- f_4^+ f_{12}^+ -f_1^- f_3^- f_8^- f_9^- f_{12}^+ -f_3^- f_4^- f_8^- f_{11}^- f_{12}^- -f_1^- f_8^- f_9^- f_{11}^- f_4^+ +f_3^- f_4^- f_8^- f_9^- f_{11}^- +f_3^- f_4^- f_8^- f_9^- f_{12}^+ +f_1^- f_3^- f_8^- f_{11}^- f_{12}^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_8+E_{10})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_3^- f_{10}^- f_{11}^- f_{12}^- +f_3^- f_4^- f_9^- f_{10}^- f_{11}^- -f_1^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_3^- f_4^- f_9^- f_{10}^- f_{12}^+ -f_1^- f_9^- f_{10}^- f_{11}^- f_4^+ +f_1^- f_{10}^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_3^- f_9^- f_{10}^- f_{11}^- -f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- -f_1^- f_3^- f_9^- f_{10}^- f_{12}^+}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_{10}+E_8)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_3^- f_{11}^- f_{12}^- f_9^+ -f_3^- f_4^- f_{11}^- f_{12}^- f_9^+ +f_1^- f_{11}^- f_{12}^- f_4^+ f_9^+}{(-E_{11}-E_{12}+E_2+E_9)(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)(-E_{11}-E_{12}+E_6+E_9)(-E_{11}-E_{12}+E_8+E_9)(-E_{11}-E_{12}+E_9+E_{10})}
\end{array}\right)
$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|5,8\}\{9,10|V|11,12\}\{11,12|V|9,2\}f_8^- \left(\begin{array}{c}
\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_{12}^+ - f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_7^- f_9^- f_4^+ f_{12}^+ + f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ + f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- - f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_{11}^- - f_2^- f_3^- f_4^- f_7^- f_9^- f_{11}^- + f_1^- f_2^- f_7^- f_9^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{12}^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- - f_1^- f_2^- f_5^- f_9^- f_{11}^- f_4^+ + f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^- - f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- - f_1^- f_2^- f_5^- f_9^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- + f_1^- f_2^- f_3^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_5+E_7)(-E_2+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_1^+ - f_3^- f_4^- f_5^- f_9^- f_1^+ f_{12}^+ + f_3^- f_4^- f_7^- f_9^- f_{11}^- f_1^+ + f_3^- f_4^- f_7^- f_9^- f_1^+ f_{12}^+ - f_3^- f_4^- f_5^- f_9^- f_{11}^- f_1^+ - f_3^- f_4^- f_7^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_7)(-E_3-E_4+E_1+E_{10})(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_9^- f_{11}^- - f_1^- f_3^- f_5^- f_6^- f_9^- f_{11}^- - f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^+ + f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^+ + f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^- - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{12}^- - f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^+ + f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- - f_1^- f_5^- f_6^- f_9^- f_4^+ f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_{11}^- + f_1^- f_3^- f_6^- f_7^- f_9^- f_{12}^+ - f_1^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_5^- f_6^- f_9^- f_{11}^- f_4^+ + f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^- + f_1^- f_6^- f_7^- f_9^- f_{11}^- f_4^+ + f_1^- f_6^- f_7^- f_9^- f_4^+ f_{12}^+ + f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_6^- f_7^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7+E_5)(-E_6+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_5^- f_9^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^- - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^- - f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- + f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^- - f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^- - f_1^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ - f_3^- f_4^- f_5^- f_9^-}{(-E_5+E_7)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_{11}^- f_{12}^- f_9^+ + f_1^- f_7^- f_{11}^- f_{12}^- f_4^+ f_9^+ - f_1^- f_3^- f_5^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_5^- f_{11}^- f_{12}^- f_4^+ f_9^+ - f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_9^+ + f_3^- f_4^- f_5^- f_{11}^-}{(-E_7+E_5)(-E_{11}-E_{12}+E_2+E_9)(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)(-E_{11}-E_{12}+E_6+E_9)(-E_{11}-E_{12}+E_9+E_{10})}
\end{array} \right.$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|9,10\}\{9,10|V|11,2\}\{11,12|V|7,12\}f_5^- f_{12}^- \left(\begin{array}{c}
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- - f_2^- f_3^- f_4^- f_7^- f_{10}^+ + f_1^- f_2^- f_3^- f_7^- f_{10}^+ - f_2^- f_3^- f_4^- f_7^- f_9^- + f_1^- f_2^- f_7^- f_9^- f_4^+ + f_1^- f_2^- f_7^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_2-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_2^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2+E_8)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_2+E_{11})} \\
\frac{+f_1^- f_2^- f_9^- f_{11}^- f_4^+ + f_1^- f_2^- f_{11}^- f_4^+ f_{10}^+ - f_2^- f_3^- f_4^- f_{11}^- f_{10}^+ - f_2^- f_3^- f_4^- f_9^- f_{11}^- + f_1^- f_2^- f_3^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_3^- f_9^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_{11}+E_7)(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_1^+ f_{10}^+ + f_3^- f_4^- f_7^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_7)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})} \\
\frac{+f_3^- f_4^- f_{11}^- f_1^+ f_{10}^+ + f_3^- f_4^- f_9^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_{11}+E_7)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})} \\
\frac{+f_1^- f_6^- f_7^- f_4^+ f_{10}^+ - f_3^- f_4^- f_6^- f_7^- f_{10}^+ + f_1^- f_3^- f_6^- f_7^- f_{10}^+ - f_3^- f_4^- f_6^- f_7^- f_9^- + f_1^- f_3^- f_6^- f_7^- f_9^- + f_1^- f_6^- f_7^- f_9^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_6^+ - f_1^- f_6^- f_9^- f_{10}^- f_4^+ - f_1^- f_3^- f_6^- f_9^- f_{10}^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_6+E_{11})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{11}^- - f_1^- f_3^- f_6^- f_9^- f_{11}^- - f_1^- f_6^- f_9^- f_{11}^- f_4^+ + f_3^- f_4^- f_6^- f_{11}^- f_{10}^+ - f_1^- f_3^- f_6^- f_{11}^- f_{10}^+ - f_1^- f_6^- f_{11}^- f_4^+ f_{10}^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_{11}+E_7)(-E_6-E_{11}+E_9+E_{10})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{10}^+ + f_1^- f_7^- f_8^- f_9^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_9^- - f_3^- f_4^- f_7^- f_8^- f_{10}^+ + f_1^- f_7^- f_8^- f_4^+ f_{10}^+ + f_1^- f_3^- f_7^- f_8^- f_9^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_1^- f_8^- f_9^- f_{10}^- f_4^+ + f_1^- f_3^- f_8^- f_9^- f_{10}^- - f_3^- f_4^- f_9^- f_{10}^- f_8^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_{10}^+ - f_1^- f_8^- f_9^- f_{11}^- f_4^+ - f_1^- f_3^- f_8^- f_{11}^- f_{10}^+ - f_1^- f_3^- f_8^- f_9^- f_{11}^- + f_3^- f_4^- f_8^- f_9^- f_{11}^- - f_1^- f_8^- f_{11}^- f_4^+ f_{10}^+}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_{11}+E_7)(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- - f_1^- f_3^- f_9^- f_{10}^- f_7^+ - f_1^- f_9^- f_{10}^- f_4^+ f_7^+}{(-E_9-E_{10}+E_2+E_7)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_7+E_{11})} \\
\frac{+f_1^- f_9^- f_{10}^- f_4^+ f_{11}^+ + f_1^- f_3^- f_9^- f_{10}^- f_{11}^+ - f_3^- f_4^- f_9^- f_{10}^- f_{11}^-}{(-E_{11}+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})}
\end{array} \right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,8\}\{7,8|V|9,2\}\{9,10|V|11,10\}\{11,12|V|5,12\}f_{10}^- f_{12}^- \left(\begin{array}{c}
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^+ + f_1^- f_2^- f_5^- f_4^+ f_8^+ - f_2^- f_3^- f_4^- f_5^- f_7^- - f_2^- f_3^- f_4^- f_5^- f_8^+ + f_1^- f_2^- f_5^- f_7^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_7^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_5+E_9)(-E_5+E_{11})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_2^+ + f_1^- f_2^- f_3^- f_7^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})} \\
\frac{+f_1^- f_2^- f_7^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_9^- f_8^+ - f_2^- f_3^- f_4^- f_7^- f_9^- + f_1^- f_2^- f_3^- f_7^- f_9^- - f_2^- f_3^- f_4^- f_9^- f_8^+ + f_1^- f_2^- f_9^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9+E_5)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})} \\
\frac{+f_1^- f_2^- f_{11}^- f_4^+ f_8^+ + f_1^- f_2^- f_7^- f_{11}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_{11}^- + f_1^- f_2^- f_3^- f_{11}^- f_8^+ - f_2^- f_3^- f_4^- f_{11}^- f_8^+ + f_1^- f_2^- f_3^- f_7^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_{11}+E_5)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_1^+ + f_3^- f_4^- f_5^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_5+E_9)(-E_5+E_{11})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_7-E_8+E_3+E_4+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_8^+ + f_3^- f_4^- f_7^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_1^+ + f_3^- f_4^- f_{11}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_{11}+E_5)(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^+ + f_3^- f_4^- f_5^- f_6^- f_7^- - f_1^- f_5^- f_6^- f_4^+ f_8^+ - f_1^- f_3^- f_5^- f_6^- f_8^+ - f_1^- f_5^- f_6^- f_7^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_7^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_8)(-E_5+E_9)(-E_5+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_6^+ - f_1^- f_6^- f_7^- f_8^- f_4^+ - f_1^- f_3^- f_6^- f_7^- f_8^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_7-E_8+E_6+E_{11})} \\
\frac{+f_1^- f_3^- f_6^- f_9^- f_8^+ + f_1^- f_3^- f_6^- f_7^- f_9^- + f_1^- f_6^- f_7^- f_9^- f_4^+ - f_3^- f_4^- f_6^- f_9^- f_8^+ - f_3^- f_4^- f_6^- f_7^- f_9^- + f_1^- f_6^- f_9^- f_4^+ f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9+E_5)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_{11}^- + f_1^- f_3^- f_6^- f_{11}^- f_8^+ + f_1^- f_6^- f_{11}^- f_4^+ f_8^+ + f_1^- f_6^- f_7^- f_{11}^- f_4^+ - f_3^- f_4^- f_6^- f_7^- f_{11}^- - f_3^- f_4^- f_6^- f_{11}^- f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_{11}+E_5)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_5^+ + f_1^- f_7^- f_8^- f_4^+ f_5^+ - f_3^- f_4^- f_5^- f_7^- f_8^-}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_5+E_6)(-E_5+E_9)(-E_5+E_{11})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_9^+ - f_3^- f_4^- f_7^- f_8^- f_9^- + f_1^- f_7^- f_8^- f_4^+ f_9^+}{(-E_9+E_5)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_7-E_8+E_6+E_9)(-E_9+E_{11})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{11}^+ + f_1^- f_7^- f_8^- f_4^+ f_{11}^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^-}{(-E_{11}+E_5)(-E_7-E_8+E_2+E_{11})(-E_1-E_7-E_8+E_3+E_4+E_{11})(-E_7-E_8+E_6+E_{11})(-E_{11}+E_9)}
\end{array} \right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,8\}\{7,8|V|9,2\}\{9,10|V|5,12\}\{11,12|V|11,10\}f_{11}^{-}\left(\begin{array}{r}
\frac{+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{12}^{-}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{12}^{-}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{12}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{10}^{-}f_{8}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{10}^{-}f_{4}^{+}f_{8}^{+}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{10}^{-}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{12}^{-}f_{8}^{+}+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{12}^{-}f_{8}^{+}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{10}^{-}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{10}^{-}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{10}^{-}f_{4}^{+}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{2}+E_{6})(-E_{2}-E_{5}+E_{7}+E_{8})(-E_{5}+E_{9})(-E_{12}+E_{10})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{2}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}-f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{2}^{+}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{2}+E_{6})(-E_{7}-E_{8}+E_{2}+E_{5})(-E_{7}-E_{8}+E_{2}+E_{9})(-E_{12}+E_{10})}\\
\frac{+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}+f_{1}^{-}f_{2}^{-}f_{9}^{-}f_{10}^{-}f_{4}^{+}f_{8}^{+}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{10}^{-}f_{8}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{9}^{-}f_{10}^{-}f_{8}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}+f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{4}^{+}-f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{9}^{-}f_{12}^{-}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{12}^{-}f_{8}^{+}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{2}+E_{6})(-E_{9}+E_{5})(-E_{2}-E_{9}+E_{7}+E_{8})(-E_{12}+E_{10})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{12}^{-}f_{1}^{+}f_{8}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{10}^{-}f_{1}^{+}f_{8}^{+}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{12}^{-}f_{1}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{10}^{-}f_{1}^{+}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{3}-E_{4}-E_{5}+E_{1}+E_{7}+E_{8})(-E_{5}+E_{9})(-E_{12}+E_{10})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{1}-E_{7}-E_{8}+E_{3}+E_{4}+E_{5})(-E_{1}-E_{7}-E_{8}+E_{3}+E_{4}+E_{9})(-E_{12}+E_{10})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}f_{1}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{1}^{+}-f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{10}^{-}f_{1}^{+}f_{8}^{+}+f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{12}^{-}f_{1}^{+}f_{8}^{+}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{9}+E_{5})(-E_{3}-E_{4}-E_{9}+E_{1}+E_{7}+E_{8})(-E_{12}+E_{10})}\\
\frac{+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{4}^{+}f_{8}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{10}^{-}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{12}^{-}f_{8}^{+}-f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{12}^{-}-f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{12}^{-}f_{4}^{+}+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{10}^{-}f_{4}^{+}-f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{12}^{-}f_{8}^{+}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{10}^{-}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{8}^{+}-f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{8}^{+}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{12}^{-}}{(-E_{6}+E_{2})(-E_{1}-E_{6}+E_{3}+E_{4})(-E_{5}-E_{6}+E_{7}+E_{8})(-E_{5}+E_{9})(-E_{10}+E_{12})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{6}^{+}-f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}-f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}+f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{4}^{+}+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{6}^{+}}{(-E_{6}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{7}-E_{8}+E_{5}+E_{6})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{12}+E_{10})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}-f_{1}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{4}^{+}f_{8}^{+}-f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{4}^{+}-f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}-f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{8}^{+}-f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}f_{8}^{+}+f_{1}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}f_{8}^{+}+f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}+f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{8}^{+}+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}-f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{7}^{-}f_{9}^{-}f_{12}^{-}}{(-E_{6}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{9}+E_{5})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{10}+E_{12})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{5}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}-f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{5}^{+}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}+f_{1}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}f_{5}^{+}-f_{1}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{4}^{+}f_{5}^{+}}{(-E_{7}-E_{8}+E_{2}+E_{5})(-E_{1}-E_{7}-E_{8}+E_{3}+E_{4}+E_{5})(-E_{7}-E_{8}+E_{5}+E_{6})(-E_{5}+E_{9})(-E_{12}+E_{10})}\\
\frac{+f_{1}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{4}^{+}f_{9}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{10}^{-}+f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{9}^{+}-f_{1}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}f_{9}^{+}-f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{9}^{+}+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}}{(-E_{9}+E_{5})(-E_{7}-E_{8}+E_{2}+E_{9})(-E_{1}-E_{7}-E_{8}+E_{3}+E_{4}+E_{9})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{10}+E_{12})}
\end{array}\right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|9,10\}\{9,10|V|11,2\}\{11,12|V|5,8\}\left(\begin{array}{r}
\frac{+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{2}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{10}^{+}+f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}f_{10}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{2}^{+}f_{10}^{+}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{2}^{+}f_{10}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{+}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{4}^{+}f_{10}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}+f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}f_{2}^{+}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{2}+E_{6})(-E_{7}-E_{8}+E_{9}+E_{10})(-E_{7}-E_{8}+E_{2}+E_{11})(-E_{2}-E_{5}+E_{7}+E_{12})}\\
\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}+f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{2}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{7}^{+}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{4}^{+}f_{7}^{+}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{2}^{+}f_{7}^{+}}{(-E_{1}-E_{2}+E_{3}+E_{4})(-E_{2}+E_{6})(-E_{9}-E_{10}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{2}+E_{11})(-E_{7}-E_{12}+E_{2}+E_{5})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{2}^{+}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{10}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{10}^{-}f_{2}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{8}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{10}^{-}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{2}+E_{6})(-E_{9}-E_{10}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{2}+E_{11})(-E_{9}-E_{10}-E_{12}+E_{2}+E_{5}+E_{8})}\\
\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{10}^{+}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{2}^{+}f_{7}^{+}f_{10}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{2}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{2}^{+}f_{10}^{+}+f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}f_{10}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{11}^{-}f_{7}^{+}f_{10}^{+}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{11}^{-}f_{4}^{+}f_{7}^{+}f_{10}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{9}^{-}f_{11}^{-}f_{7}^{+}+f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{11}^{-}f_{2}^{+}f_{7}^{+}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{9}^{-}f_{11}^{-}f_{4}^{+}f_{7}^{+}}{(-E_{1}-E_{2}+E_{3}+E_{4})(-E_{2}+E_{6})(-E_{2}-E_{11}+E_{7}+E_{8})(-E_{2}-E_{11}+E_{9}+E_{10})(-E_{7}-E_{12}+E_{2}+E_{5})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{11}^{-}f_{12}^{-}f_{2}^{+}f_{8}^{+}f_{10}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}f_{10}^{+}-f_{1}^{-}f_{2}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}f_{10}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{11}^{-}f_{2}^{+}f_{10}^{+}+f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{2}^{+}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{8}^{-}f_{11}^{-}f_{4}^{+}f_{10}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{11}^{-}f_{2}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{11}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{11}^{-}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{8}^{-}f_{11}^{-}f_{10}^{+}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{2}+E_{6})(-E_{2}-E_{11}+E_{7}+E_{8})(-E_{2}-E_{11}+E_{9}+E_{10})(-E_{11}-E_{12}+E_{5}+E_{8})}\\
\frac{+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{2}^{+}}{(-E_{1}-E_{2}+E_{3}+E_{4})(-E_{2}+E_{6})(-E_{9}-E_{10}+E_{2}+E_{11})(-E_{2}-E_{5}+E_{7}+E_{12})(-E_{9}-E_{10}-E_{12}+E_{2}+E_{5}+E_{8})}\\
\frac{+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{2}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{12}^{-}f_{2}^{+}f_{10}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{11}^{-}f_{12}^{-}f_{10}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}f_{10}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}}{(-E_{1}-E_{2}+E_{3}+E_{4})(-E_{2}+E_{6})(-E_{2}-E_{11}+E_{9}+E_{10})(-E_{2}-E_{5}+E_{7}+E_{12})(-E_{11}-E_{12}+E_{5}+E_{8})}\\
\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{4}^{+}f_{12}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{2}^{+}f_{10}^{+}f_{12}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{8}^{-}f_{4}^{+}f_{10}^{+}f_{12}^{+}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{8}^{-}f_{10}^{+}f_{12}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{2}^{+}f_{12}^{+}}{(-E_{1}-E_{2}+E_{3}+E_{4})(-E_{2}+E_{6})(-E_{2}-E_{5}+E_{7}+E_{12})(-E_{2}-E_{5}-E_{8}+E_{9}+E_{10}+E_{12})(-E_{5}-E_{8}+E_{11}+E_{12})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{10}^{+}+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{+}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{7}-E_{8}+E_{9}+E_{10})(-E_{1}-E_{7}-E_{8}+E_{3}+E_{4}+E_{11})(-E_{3}-E_{4}-E_{5}+E_{1}+E_{7}+E_{12})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{7}^{+}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{9}-E_{10}+E_{7}+E_{8})(-E_{1}-E_{9}-E_{10}+E_{3}+E_{4}+E_{11})(-E_{1}-E_{7}-E_{12}+E_{3}+E_{4}+E_{5})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{8}^{+}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{10}^{-}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{9}-E_{10}+E_{7}+E_{8})(-E_{1}-E_{9}-E_{10}+E_{3}+E_{4}+E_{11})(-E_{1}-E_{9}-E_{10}-E_{12}+E_{3}+E_{4}+E_{5}+E_{8})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{10}^{+}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{11}^{-}f_{7}^{+}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{7}^{+}f_{10}^{+}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{3}-E_{4}-E_{11}+E_{1}+E_{7}+E_{8})(-E_{3}-E_{4}-E_{11}+E_{1}+E_{9}+E_{10})(-E_{1}-E_{7}-E_{12}+E_{3}+E_{4}+E_{5})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}f_{10}^{+}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{11}^{-}f_{10}^{+}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{11}^{-}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{3}-E_{4}-E_{11}+E_{1}+E_{7}+E_{8})(-E_{3}-E_{4}-E_{11}+E_{1}+E_{9}+E_{10})(-E_{11}-E_{12}+E_{5}+E_{8})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{1}-E_{9}-E_{10}+E_{3}+E_{4}+E_{11})(-E_{3}-E_{4}-E_{5}+E_{1}+E_{7}+E_{12})(-E_{1}-E_{9}-E_{10}-E_{12}+E_{3}+E_{4}+E_{5}+E_{8})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{12}^{-}f_{10}^{+}+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{3}-E_{4}-E_{11}+E_{1}+E_{9}+E_{10})(-E_{3}-E_{4}-E_{5}+E_{1}+E_{7}+E_{12})(-E_{11}-E_{12}+E_{5}+E_{8})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{+}+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{10}^{+}f_{12}^{+}}{(-E_{3}-E_{4}+E_{1}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{3}-E_{4}-E_{5}+E_{1}+E_{7}+E_{12})(-E_{3}-E_{4}-E_{5}-E_{8}+E_{1}+E_{9}+E_{10}+E_{12})(-E_{5}-E_{8}+E_{11}+E_{12})}\\
\frac{+f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}-f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{4}^{+}f_{10}^{+}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{6}^{+}f_{10}^{+}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{6}^{+}-f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}-f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}f_{6}^{+}-f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{+}+f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}f_{10}^{+}+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{10}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{6}^{+}f_{10}^{+}}{(-E_{6}+E_{2})(-E_{1}-E_{6}+E_{3}+E_{4})(-E_{7}-E_{8}+E_{9}+E_{10})(-E_{7}-E_{8}+E_{6}+E_{11})(-E_{7}-E_{12}+E_{5}+E_{6})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{6}^{+}f_{7}^{+}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{6}^{+}+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}-f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{7}^{+}-f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{4}^{+}f_{7}^{+}+f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}}{(-E_{6}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{9}-E_{10}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{6}+E_{11})(-E_{5}-E_{6}+E_{7}+E_{12})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{8}^{+}+f_{1}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}-f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{6}^{+}f_{8}^{+}-f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}f_{10}^{-}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{10}^{-}f_{6}^{+}-f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}f_{10}^{-}f_{4}^{+}}{(-E_{6}+E_{2})(-E_{1}-E_{6}+E_{3}+E_{4})(-E_{9}-E_{10}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{6}+E_{11})(-E_{9}-E_{10}-E_{12}+E_{5}+E_{6}+E_{8})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{6}^{+}f_{10}^{+}-f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{10}^{+}+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{11}^{-}f_{4}^{+}f_{7}^{+}-f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{6}^{+}f_{7}^{+}f_{10}^{+}+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{4}^{+}f_{7}^{+}f_{10}^{+}+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{6}^{+}-f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{7}^{+}f_{10}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{11}^{-}f_{6}^{+}f_{7}^{+}-f_{1}^{-}f_{6}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}f_{10}^{+}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{11}^{-}f_{7}^{+}}{(-E_{6}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{6}-E_{11}+E_{7}+E_{8})(-E_{6}-E_{11}+E_{9}+E_{10})(-E_{7}-E_{12}+E_{5}+E_{6})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{11}^{-}f_{6}^{+}f_{10}^{+}-f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{11}^{-}f_{10}^{+}-f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}f_{11}^{-}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{11}^{-}f_{6}^{+}-f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}f_{11}^{-}f_{4}^{+}+f_{1}^{-}f_{6}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}-f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{6}^{+}f_{8}^{+}+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}-f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{11}^{-}f_{4}^{+}f_{10}^{+}-f_{3}^{-}f_{4}^{-}f_{11}^{-}f_{12}^{-}f_{6}^{+}f_{8}^{+}f_{10}^{+}+f_{1}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}f_{10}^{+}+f_{1}^{-}f_{3}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}f_{10}^{+}}{(-E_{6}+E_{2})(-E_{3}-E_{4}+E_{1}+E_{6})(-E_{6}-E_{11}+E_{7}+E_{8})(-E_{6}-E_{11}+E_{9}+E_{10})(-E_{5}-E_{8}+E_{11}+E_{12})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{6}^{+}}{(-E_{6}+E_{2})(-E_{1}-E_{6}+E_{3}+E_{4})(-E_{9}-E_{10}+E_{6}+E_{11})(-E_{5}-E_{6}+E_{7}+E_{12})(-E_{9}-E_{10}-E_{12}+E_{5}+E_{6}+E_{8})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}f_{10}^{+}+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}f_{10}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{12}^{-}f_{6}^{+}f_{10}^{+}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{6}^{+}+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}}{(-E_{6}+E_{2})(-E_{1}-E_{6}+E_{3}+E_{4})(-E_{6}-E_{11}+E_{9}+E_{10})(-E_{5}-E_{6}+E_{7}+E_{12})(-E_{11}-E_{12}+E_{5}+E_{8})}\\
\frac{+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}f_{4}^{+}f_{12}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{6}^{+}f_{12}^{+}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{6}^{+}f_{10}^{+}f_{12}^{+}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{10}^{+}f_{12}^{+}+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{4}^{+}f_{10}^{+}f_{12}^{+}}{(-E_{6}+E_{2})(-E_{1}-E_{6}+E_{3}+E_{4})(-E_{5}-E_{6}+E_{7}+E_{12})(-E_{5}-E_{6}-E_{8}+E_{9}+E_{10}+E_{12})(-E_{5}-E_{8}+E_{11}+E_{12})}\\
\frac{+f_{1}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{4}^{+}f_{10}^{+}f_{11}^{+}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{+}f_{11}^{+}-f_{1}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}f_{11}^{+}+f_{3}^{-}f_{4}^{-}f_{11}^{-}f_{12}^{-}f_{7}^{+}f_{8}^{+}f_{10}^{+}+f_{3}^{-}f_{4}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{7}^{+}f_{8}^{+}+f_{1}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{4}^{+}f_{11}^{+}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{11}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{7}^{+}f_{8}^{+}f_{10}^{+}-f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{10}^{+}f_{11}^{+}-f_{1}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}f_{10}^{+}f_{11}^{+}-f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}f_{11}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{11}^{-}f_{7}^{+}f_{8}^{+}}{(-E_{7}-E_{8}+E_{9}+E_{10})(-E_{7}-E_{8}+E_{2}+E_{11})(-E_{1}-E_{7}-E_{8}+E_{3}+E_{4}+E_{11})(-E_{7}-E_{8}+E_{6}+E_{11})(-E_{5}-E_{8}+E_{11}+E_{12})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{10}^{-}f_{11}^{+}-f_{1}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}f_{8}^{+}f_{11}^{+}-f_{1}^{-}f_{3}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{8}^{+}f_{11}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{11}^{-}f_{9}^{+}f_{10}^{+}+f_{1}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{10}^{-}f_{4}^{+}f_{11}^{+}+f_{3}^{-}f_{4}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}f_{9}^{+}f_{10}^{+}}{(-E_{9}-E_{10}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{2}+E_{11})(-E_{1}-E_{9}-E_{10}+E_{3}+E_{4}+E_{11})(-E_{9}-E_{10}+E_{6}+E_{11})(-E_{5}-E_{8}+E_{11}+E_{12})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{9}^{+}f_{10}^{+}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{7}^{+}f_{11}^{+}+f_{1}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{4}^{+}f_{7}^{+}f_{11}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{7}^{+}f_{9}^{+}f_{10}^{+}-f_{1}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}f_{11}^{+}-f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{11}^{+}}{(-E_{9}-E_{10}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{2}+E_{11})(-E_{3}-E_{4}-E_{11}+E_{1}+E_{9}+E_{10})(-E_{9}-E_{10}+E_{6}+E_{11})(-E_{7}-E_{11}-E_{12}+E_{5}+E_{9}+E_{10})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{-}f_{7}^{+}f_{12}^{+}-f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}f_{5}^{+}-f_{1}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}f_{4}^{+}f_{5}^{+}-f_{1}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{4}^{+}f_{5}^{+}f_{10}^{+}+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{7}^{+}f_{10}^{+}f_{12}^{+}-f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{5}^{+}f_{10}^{+}}{(-E_{7}-E_{8}+E_{9}+E_{10})(-E_{7}-E_{12}+E_{2}+E_{5})(-E_{3}-E_{4}-E_{5}+E_{1}+E_{7}+E_{12})(-E_{7}-E_{12}+E_{5}+E_{6})(-E_{5}-E_{8}+E_{11}+E_{12})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{7}^{+}f_{12}^{+}-f_{1}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}f_{5}^{+}-f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{5}^{+}}{(-E_{9}-E_{10}+E_{7}+E_{8})(-E_{7}-E_{12}+E_{2}+E_{5})(-E_{3}-E_{4}-E_{5}+E_{1}+E_{7}+E_{12})(-E_{7}-E_{12}+E_{5}+E_{6})(-E_{5}-E_{9}-E_{10}+E_{7}+E_{11}+E_{12})}\\
\frac{+f_{1}^{-}f_{3}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{5}^{+}f_{8}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{8}^{-}f_{9}^{+}f_{10}^{+}f_{12}^{+}+f_{1}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}f_{5}^{+}f_{8}^{+}}{(-E_{9}-E_{10}+E_{7}+E_{8})(-E_{9}-E_{10}-E_{12}+E_{2}+E_{5}+E_{8})(-E_{1}-E_{9}-E_{10}-E_{12}+E_{3}+E_{4}+E_{5}+E_{8})(-E_{9}-E_{10}-E_{12}+E_{5}+E_{6}+E_{8})(-E_{5}-E_{8}+E_{11}+E_{12})}\\
\frac{+f_{1}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}f_{11}^{+}+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{11}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{12}^{-}f_{9}^{+}f_{10}^{+}}{(-E_{9}-E_{10}+E_{2}+E_{11})(-E_{1}-E_{9}-E_{10}+E_{3}+E_{4}+E_{11})(-E_{9}-E_{10}+E_{6}+E_{11})(-E_{11}-E_{12}+E_{5}+E_{8})(-E_{5}-E_{9}-E_{10}+E_{7}+E_{11}+E_{12})}\\
\frac{+f_{1}^{-}f_{7}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}f_{5}^{+}+f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{5}^{+}+f_{1}^{-}f_{3}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{5}^{+}f_{10}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{9}^{-}f_{11}^{-}f_{7}^{+}f_{12}^{+}+f_{1}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}f_{5}^{+}f_{10}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{11}^{-}f_{7}^{+}f_{10}^{+}f_{12}^{+}}{(-E_{7}-E_{12}+E_{2}+E_{5})(-E_{1}-E_{7}-E_{12}+E_{3}+E_{4}+E_{5})(-E_{7}-E_{12}+E_{5}+E_{6})(-E_{11}-E_{12}+E_{5}+E_{8})(-E_{7}-E_{11}-E_{12}+E_{5}+E_{9}+E_{10})}
\end{array}\right)$$

$$
+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|1,8\}\{7,8|V|9,10\}\{9,10|V|7,6\}\{11,12|V|11,2\}f_{11}^{-}
\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- +f_1^- f_2^- f_6^- f_7^- f_4^+ f_{10}^+ -f_1^- f_2^- f_6^- f_9^- f_{10}^- f_4^+ -f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- +f_1^- f_2^- f_3^- f_6^- f_7^- f_{10}^+ +f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_{10}^+ -f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^- +f_1^- f_3^- f_4^- f_6^- f_7^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_9^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^- -f_1^- f_2^- f_7^- f_8^- f_4^+ f_{10}^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- -f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_8+E_6)(-E_9-E_{10}+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_{10}^- -f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^+ -f_1^- f_3^- f_4^- f_7^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_8+E_6)(-E_9-E_{10}+E_7+E_8)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_7^+ +f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^- f_2^+ -f_3^- f_4^- f_6^- f_7^- f_2^+ f_{10}^+ -f_3^- f_4^- f_6^- f_7^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_6+E_8)(-E_9-E_{10}+E_6+E_7)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^- f_2^+ -f_3^- f_4^- f_7^- f_8^- f_2^+ f_{10}^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_8+E_6)(-E_9-E_{10}+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_4^+ f_{10}^+ -f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- +f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^+ +f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ -f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ +f_2^- f_3^- f_5^- f_6^- f_7^- f_9^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- -f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- -f_3^- f_4^- f_5^- f_6^- f_7^- f_{10}^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_6+E_8)(-E_9-E_{10}+E_6+E_7)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^+ +f_2^- f_5^- f_7^- f_8^- f_4^+ f_{10}^+ -f_2^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ -f_2^- f_3^- f_5^- f_8^- f_9^- f_{10}^- +f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- +f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^+ +f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- -f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_7^+ +f_2^- f_3^- f_5^- f_9^- f_{10}^- f_7^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_7^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_{12}^- f_4^+ f_{10}^+ -f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^- +f_1^- f_3^- f_6^- f_7^- f_{12}^- f_{10}^+ +f_1^- f_3^- f_6^- f_7^- f_9^- f_{12}^- -f_1^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ +f_1^- f_6^- f_7^- f_9^- f_{12}^- f_4^+}{(-E_1+E_5)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)} \\
\frac{+f_5^- f_6^- f_7^- f_{12}^- f_4^+ f_{10}^+ -f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- +f_3^- f_5^- f_6^- f_7^- f_{12}^- f_{10}^+ +f_5^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ -f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ +f_3^- f_5^- f_6^- f_7^- f_9^- f_{12}^-}{(-E_5+E_1)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_{12}+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_1^- f_8^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_1^- f_3^- f_7^- f_8^- f_{12}^- f_{10}^+ +f_1^- f_3^- f_8^- f_9^- f_{10}^- f_{12}^- -f_1^- f_3^- f_7^- f_8^- f_9^- f_{12}^- -f_1^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ -f_1^- f_7^- f_8^- f_{12}^- f_4^+ f_{10}^+}{(-E_1+E_5)(-E_8+E_6)(-E_9-E_{10}+E_7+E_8)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)} \\
\frac{+f_5^- f_7^- f_8^- f_{12}^- f_4^+ f_{10}^+ +f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^- -f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_4^+ +f_5^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ +f_3^- f_5^- f_7^- f_8^- f_{12}^- f_{10}^+ -f_3^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^-}{(-E_5+E_1)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_7^+ +f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_7^+}{(-E_1+E_5)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)} \\
\frac{+f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_7^+ +f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_7^+}{(-E_5+E_1)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_{12}+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^+ -f_3^- f_4^- f_6^- f_7^- f_{10}^+ f_{12}^+ -f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^+}{(-E_6+E_8)(-E_9-E_{10}+E_6+E_7)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^+ f_{12}^+ +f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^+ -f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{12}^+}{(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_7^+ f_{12}^+}{(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_5+E_{12})}
\end{array}\right)
$$

$$
+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,2\}\{5,6|V|7,10\}\{7,8|V|1,8\}\{9,10|V|11,12\}\{11,12|V|9,6\}f_8^{-}
\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^- -f_1^- f_3^- f_4^- f_6^- f_9^- f_{11}^- +f_1^- f_2^- f_6^- f_9^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_6^- f_9^- f_{12}^+ -f_1^- f_2^- f_6^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_3^- f_4^- f_6^- f_9^- f_{12}^+ +f_1^- f_3^- f_4^- f_6^- f_{11}^- f_{12}^- +f_1^- f_2^- f_6^- f_9^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_6^- f_{11}^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_1+E_7)(-E_6+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{11}^- -f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^- -f_1^- f_2^- f_9^- f_{10}^- f_{11}^- f_4^+ +f_1^- f_2^- f_{10}^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- -f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^+ -f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^- +f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_1+E_7)(-E_{10}+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_9^+ +f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_9^+ -f_1^- f_3^- f_4^- f_{11}^- f_{12}^- f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_1+E_7)(-E_{11}-E_{12}+E_6+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{11}^- f_2^+ +f_3^- f_4^- f_6^- f_9^- f_2^+ f_{12}^+ -f_3^- f_4^- f_6^- f_{11}^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_2+E_7)(-E_6+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_2^+ +f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_{12}^+ -f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_2+E_7)(-E_{10}+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_2+E_7)(-E_{11}-E_{12}+E_6+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- +f_2^- f_5^- f_6^- f_9^- f_{11}^- f_4^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^- +f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{12}^- -f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- -f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^+ +f_2^- f_5^- f_6^- f_9^- f_4^+ f_{12}^+ +f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_5+E_7)(-E_6+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{11}^- f_4^+ +f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^- +f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- -f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ -f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- +f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^+ +f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_{12}^+ -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^+ -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_5+E_7)(-E_{10}+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_9^+ +f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_9^+ -f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_9^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_5+E_7)(-E_{11}-E_{12}+E_6+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_6^- f_7^- f_9^- f_4^+ f_{12}^+ -f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^+ -f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- -f_2^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ +f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^- +f_2^- f_6^- f_7^- f_9^- f_{11}^- f_4^+ +f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^+ +f_2^- f_3^- f_6^- f_7^- f_9^- f_{11}^- -f_3^- f_4^- f_6^- f_7^- f_9^- f_{11}^-}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_7+E_5)(-E_6+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- -f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ -f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- +f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ -f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+ +f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^- -f_2^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ -f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^-}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_7+E_5)(-E_{10}+E_6)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_9^+ +f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_9^+ -f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_7+E_5)(-E_{11}-E_{12}+E_6+E_9)(-E_{11}-E_{12}+E_9+E_{10})}
\end{array}\right)
$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,2\}\{7,8|V|9,10\}\{9,10|V|1,6\}\{11,12|V|11,8\}f_{11}^{-}\left(\begin{array}{c}
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_{10}^+ +f_1^-f_2^-f_5^-f_6^-f_9^-f_4^+ +f_1^-f_2^-f_3^-f_5^-f_6^-f_9^- +f_1^-f_2^-f_5^-f_6^-f_4^+f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_5+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_2+E_5+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_9^-f_5^+ +f_1^-f_2^-f_3^-f_7^-f_5^+f_{10}^+ +f_1^-f_2^-f_7^-f_4^+f_5^+f_{10}^+ +f_1^-f_2^-f_7^-f_9^-f_4^+f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_5+E_8)(-E_1-E_2-E_7+E_5+E_9+E_{10})(-E_1-E_2+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_5^-f_6^-f_9^- +f_2^-f_3^-f_4^-f_5^-f_6^-f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_5^+f_{10}^+ +f_2^-f_3^-f_4^-f_7^-f_9^-f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^-f_2^-f_6^-f_7^-f_4^+f_{10}^+ +f_1^-f_2^-f_6^-f_7^-f_9^-f_4^+ +f_1^-f_2^-f_3^-f_6^-f_7^-f_{10}^+ +f_1^-f_2^-f_3^-f_6^-f_7^-f_9^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_6^-f_7^-f_{10}^+ +f_2^-f_3^-f_4^-f_6^-f_7^-f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_9^-f_1^+ +f_3^-f_4^-f_5^-f_6^-f_1^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_1-E_6+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_9^-f_1^+f_5^+ +f_3^-f_4^-f_7^-f_1^+f_5^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_1^+f_{10}^+ +f_3^-f_4^-f_6^-f_7^-f_9^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_7+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_6^-f_9^-f_8^+ +f_1^-f_2^-f_6^-f_4^+f_8^+f_{10}^+ +f_1^-f_2^-f_6^-f_9^-f_4^+f_8^+ +f_1^-f_2^-f_3^-f_6^-f_8^+f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_8+E_{12})}\\
\frac{+f_1^-f_2^-f_7^-f_8^-f_4^+f_{10}^+ +f_1^-f_2^-f_3^-f_7^-f_8^-f_9^- +f_1^-f_2^-f_3^-f_7^-f_8^-f_{10}^+ +f_1^-f_2^-f_7^-f_8^-f_9^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_9+E_{10})(-E_8+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_5^-f_9^-f_{10}^- +f_1^-f_2^-f_5^-f_9^-f_{10}^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_9-E_{10}+E_1+E_6)(-E_5-E_9-E_{10}+E_1+E_2+E_7)(-E_1-E_2+E_5+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_9^-f_{10}^-f_8^+ +f_1^-f_2^-f_9^-f_{10}^-f_4^+f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_9-E_{10}+E_1+E_6)(-E_9-E_{10}+E_7+E_8)(-E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_1^+f_8^+f_{10}^+ +f_3^-f_4^-f_6^-f_9^-f_1^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_1^+f_{10}^+ +f_3^-f_4^-f_7^-f_8^-f_9^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_9+E_{10})(-E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_6^-f_8^+f_{10}^+ +f_2^-f_3^-f_4^-f_6^-f_9^-f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_8^-f_{10}^+ +f_2^-f_3^-f_4^-f_7^-f_8^-f_9^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_7-E_8+E_9+E_{10})(-E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_9^-f_{10}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_9-E_{10}+E_1+E_6)(-E_5-E_9-E_{10}+E_3+E_4+E_7)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_1^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_9-E_{10}+E_1+E_6)(-E_9-E_{10}+E_7+E_8)(-E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_5^-f_9^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_5-E_9-E_{10}+E_3+E_4+E_7)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_9^-f_{10}^-f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_9-E_{10}+E_7+E_8)(-E_8+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_9^-f_{10}^- +f_1^-f_2^-f_7^-f_9^-f_{10}^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_9-E_{10}+E_1+E_6)(-E_1-E_2-E_7+E_5+E_9+E_{10})(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_9^-f_{10}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_9-E_{10}+E_1+E_6)(-E_3-E_4-E_7+E_5+E_9+E_{10})(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_7+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_6^-f_9^-f_{12}^+ +f_1^-f_2^-f_6^-f_9^-f_4^+f_{12}^+ +f_1^-f_2^-f_6^-f_4^+f_{10}^+f_{12}^+ +f_1^-f_2^-f_3^-f_6^-f_{10}^+f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_9+E_{10})(-E_1-E_2+E_5+E_{12})(-E_1-E_6+E_7+E_{12})(-E_{12}+E_8)}\\
\frac{+f_1^-f_2^-f_3^-f_9^-f_{10}^-f_{12}^+ +f_1^-f_2^-f_9^-f_{10}^-f_4^+f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_9-E_{10}+E_1+E_6)(-E_1-E_2+E_5+E_{12})(-E_{12}+E_8)(-E_9-E_{10}+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_9^-f_1^+f_{12}^+ +f_3^-f_4^-f_6^-f_1^+f_{10}^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_1-E_6+E_7+E_{12})(-E_{12}+E_8)}\\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_1^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_9-E_{10}+E_1+E_6)(-E_3-E_4+E_5+E_{12})(-E_{12}+E_8)(-E_9-E_{10}+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_9^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_3-E_4-E_7+E_5+E_9+E_{10})(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_6^-f_9^-f_{12}^+ +f_2^-f_3^-f_4^-f_6^-f_{10}^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_2+E_7+E_{12})(-E_{12}+E_8)}\\
\frac{+f_2^-f_3^-f_4^-f_9^-f_{10}^-f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_3-E_4+E_5+E_{12})(-E_{12}+E_8)(-E_9-E_{10}+E_7+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_9^-f_{12}^- +f_1^-f_2^-f_7^-f_9^-f_{12}^-f_4^+ +f_1^-f_2^-f_3^-f_7^-f_{12}^-f_{10}^+ +f_1^-f_2^-f_7^-f_{12}^-f_4^+f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_7-E_{12}+E_1+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_9+E_{10})}\\
\frac{+f_3^-f_4^-f_7^-f_9^-f_{12}^-f_1^+ +f_3^-f_4^-f_7^-f_{12}^-f_1^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_7-E_{12}+E_1+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_9+E_{10})}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{12}^-f_{10}^+ +f_2^-f_3^-f_4^-f_7^-f_9^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_2-E_7-E_{12}+E_3+E_4+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_9+E_{10})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_7^+f_{10}^+ +f_3^-f_4^-f_5^-f_6^-f_9^-f_7^+}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^-f_3^-f_5^-f_6^-f_7^+f_{10}^+ +f_1^-f_3^-f_5^-f_6^-f_9^-f_7^+ +f_1^-f_5^-f_6^-f_4^+f_7^+f_{10}^+ +f_1^-f_5^-f_6^-f_9^-f_4^+f_7^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_6^-f_8^-f_9^- +f_2^-f_5^-f_6^-f_8^-f_9^-f_4^+ +f_2^-f_5^-f_6^-f_8^-f_4^+f_{10}^+ +f_2^-f_3^-f_5^-f_6^-f_8^-f_{10}^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_8+E_{12})}\\
\frac{+f_2^-f_5^-f_7^-f_8^-f_9^-f_4^+ +f_2^-f_3^-f_5^-f_7^-f_8^-f_{10}^+ +f_2^-f_3^-f_5^-f_7^-f_8^-f_9^- +f_2^-f_5^-f_7^-f_8^-f_4^+f_{10}^+}{(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_9+E_{10})(-E_8+E_{12})}\\
\frac{+f_3^-f_5^-f_6^-f_8^-f_7^+f_{10}^+ +f_5^-f_6^-f_8^-f_4^+f_7^+f_{10}^+ +f_5^-f_6^-f_8^-f_9^-f_4^+f_7^+ +f_3^-f_5^-f_6^-f_8^-f_9^-f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_9+E_{10})(-E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_7^-f_8^-f_6^+f_{10}^+ +f_2^-f_7^-f_8^-f_4^+f_6^+f_{10}^+ +f_2^-f_3^-f_7^-f_8^-f_9^-f_6^+ +f_2^-f_7^-f_8^-f_9^-f_4^+f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_7-E_8+E_9+E_{10})(-E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_9^-f_{10}^-f_6^+ +f_2^-f_5^-f_9^-f_{10}^-f_4^+f_6^+}{(-E_5-E_6+E_2+E_7)(-E_9-E_{10}+E_1+E_6)(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_{12})}\\
\frac{+f_2^-f_7^-f_9^-f_{10}^-f_4^+f_6^+ +f_2^-f_3^-f_7^-f_9^-f_{10}^-f_6^+}{(-E_2-E_7+E_5+E_6)(-E_9-E_{10}+E_1+E_6)(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_7+E_{12})}\\
\frac{+f_3^-f_5^-f_6^-f_9^-f_{10}^-f_7^+ +f_5^-f_6^-f_9^-f_{10}^-f_4^+f_7^+}{(-E_5-E_6+E_2+E_7)(-E_9-E_{10}+E_1+E_6)(-E_5-E_9-E_{10}+E_3+E_4+E_7)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_7+E_{12})}\\
\frac{+f_2^-f_5^-f_9^-f_{10}^-f_4^+f_7^+ +f_2^-f_3^-f_5^-f_9^-f_{10}^-f_7^+}{(-E_2-E_7+E_5+E_6)(-E_5-E_9-E_{10}+E_1+E_2+E_7)(-E_5-E_9-E_{10}+E_3+E_4+E_7)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_6^-f_{12}^-f_{10}^+ +f_2^-f_5^-f_6^-f_{12}^-f_4^+f_{10}^+ +f_2^-f_3^-f_5^-f_6^-f_9^-f_{12}^- +f_2^-f_5^-f_6^-f_9^-f_{12}^-f_4^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_5-E_6-E_{12}+E_2+E_9+E_{10})}\\
\frac{+f_2^-f_5^-f_7^-f_9^-f_{12}^-f_4^+ +f_2^-f_3^-f_5^-f_7^-f_9^-f_{12}^- +f_2^-f_3^-f_5^-f_7^-f_{12}^-f_{10}^+ +f_2^-f_5^-f_7^-f_{12}^-f_4^+f_{10}^+}{(-E_2-E_7+E_5+E_6)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_7-E_{12}+E_9+E_{10})}\\
\frac{+f_3^-f_5^-f_6^-f_9^-f_{12}^-f_7^+ +f_5^-f_6^-f_{12}^-f_4^+f_7^+f_{10}^+ +f_5^-f_6^-f_9^-f_{12}^-f_4^+f_7^+ +f_3^-f_5^-f_6^-f_{12}^-f_7^+f_{10}^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_{12}+E_3+E_4)(-E_7-E_{12}+E_1+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_9+E_{10})}\\
\frac{+f_2^-f_7^-f_9^-f_{12}^-f_4^+f_6^+ +f_2^-f_3^-f_7^-f_{12}^-f_6^+f_{10}^+ +f_2^-f_7^-f_{12}^-f_4^+f_6^+f_{10}^+ +f_2^-f_3^-f_7^-f_9^-f_{12}^-f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7-E_{12}+E_1+E_6)(-E_2-E_7-E_{12}+E_3+E_4+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_9+E_{10})}\\
\frac{+f_5^-f_6^-f_8^-f_1^+f_4^+f_{10}^+ +f_3^-f_5^-f_6^-f_8^-f_1^+f_{10}^+ +f_5^-f_6^-f_8^-f_9^-f_1^+f_4^+ +f_3^-f_5^-f_6^-f_8^-f_9^-f_1^+}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_8+E_{12})}
\end{array}\right.$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,2\}\{7,8|V|9,8\}\{9,10|V|11,12\}\{11,12|V|1,6\}f_8^-\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_6^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_{12}^+ + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_2^+ f_{12}^+ + f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_5^+ f_{12}^+ + f_1^- f_2^- f_7^- f_4^+ f_5^+ f_{12}^+ + f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_7^- f_{11}^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_7+E_5+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_5^+ f_{12}^+ + f_2^- f_3^- f_4^- f_7^- f_{11}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_7+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- + f_1^- f_2^- f_6^- f_7^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_2^+ + f_3^- f_4^- f_6^- f_7^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_{12}^+ + f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_1^+ f_5^+ f_{12}^+ + f_3^- f_4^- f_7^- f_{11}^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_7+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_{12}^+ + f_1^- f_3^- f_4^- f_6^- f_7^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{11}^- f_5^+ + f_1^- f_2^- f_9^- f_{11}^- f_4^+ f_5^+ + f_1^- f_2^- f_9^- f_4^+ f_5^+ f_{12}^+ + f_1^- f_2^- f_3^- f_9^- f_5^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_5^+ f_{12}^+ + f_2^- f_3^- f_4^- f_9^- f_{11}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^- + f_1^- f_2^- f_6^- f_9^- f_{11}^- f_4^+ + f_1^- f_2^- f_6^- f_9^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_9^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{11}^- f_2^+ + f_3^- f_4^- f_6^- f_9^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_5^+ f_{12}^+ + f_3^- f_4^- f_9^- f_{11}^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_{11}^- + f_1^- f_3^- f_4^- f_6^- f_9^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_7^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_9)(-E_1-E_2+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^- + f_1^- f_2^- f_9^- f_{10}^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_9+E_7)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_1^+ f_{12}^+ + f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{12}^+ + f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_{12}^+ + f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^+ + f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- + f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_9)(-E_{11}-E_{12}+E_1+E_6)(-E_1-E_2-E_7+E_5+E_{11}+E_{12})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_{11}-E_{12}+E_1+E_6)(-E_3-E_4-E_7+E_5+E_{11}+E_{12})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- + f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_9+E_7)(-E_{11}-E_{12}+E_1+E_6)(-E_1-E_2-E_9+E_5+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_{11}-E_{12}+E_1+E_6)(-E_3-E_4-E_9+E_5+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_9)(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_7+E_5+E_{11}+E_{12})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_9+E_7)(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_9+E_5+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_3^- f_6^- f_{10}^+ f_{12}^+ + f_1^- f_2^- f_6^- f_4^+ f_{10}^+ f_{12}^+ + f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_{11}-E_{12}+E_1+E_6)(-E_5-E_{11}-E_{12}+E_1+E_2+E_7)(-E_5-E_{11}-E_{12}+E_1+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_{11}-E_{12}+E_1+E_6)(-E_{11}-E_{12}+E_7+E_{10})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{10}^+ f_{12}^+ + f_1^- f_3^- f_4^- f_6^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_2^+ f_{10}^+ f_{12}^+ + f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_{11}-E_{12}+E_1+E_6)(-E_5-E_{11}-E_{12}+E_3+E_4+E_7)(-E_5-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_{11}-E_{12}+E_1+E_6)(-E_{11}-E_{12}+E_7+E_{10})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)(-E_5-E_{11}-E_{12}+E_3+E_4+E_7)(-E_5-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_2^- f_3^- f_4^- f_{11}^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)(-E_{11}-E_{12}+E_7+E_{10})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_5^+ f_{12}^+ + f_3^- f_4^- f_6^- f_7^- f_{11}^- f_5^+}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_7+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_4^+ f_7^+ f_{12}^+ + f_1^- f_5^- f_6^- f_{11}^- f_4^+ f_7^+ + f_1^- f_3^- f_5^- f_6^- f_{11}^- f_7^+ + f_1^- f_3^- f_5^- f_6^- f_7^+ f_{12}^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_7+E_9)(-E_1-E_6+E_7+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_{10}^- f_2^+ f_4^+ f_{12}^+ + f_5^- f_6^- f_{10}^- f_{11}^- f_2^+ f_4^+ + f_3^- f_5^- f_6^- f_{10}^- f_2^+ f_{12}^+ + f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_2^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_5-E_6-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_6^+ + f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_{11}-E_{12}+E_1+E_6)(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)(-E_2-E_{11}-E_{12}+E_5+E_6+E_{10})} \\
\frac{+f_2^- f_5^- f_7^- f_{10}^- f_4^+ f_{12}^+ + f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- + f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{12}^+ + f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_{12}^+ + f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ + f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+ + f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^-}{(-E_5-E_6+E_2+E_7)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_1+E_6)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+ + f_2^- f_3^- f_7^- f_{10}^- f_6^+ f_{12}^+ + f_2^- f_7^- f_{10}^- f_4^+ f_6^+ f_{12}^+ + f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_1+E_6)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_6^+ + f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_{11}-E_{12}+E_1+E_6)(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_7^+ + f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_7^+}{(-E_5-E_6+E_2+E_7)(-E_7+E_9)(-E_{11}-E_{12}+E_1+E_6)(-E_5-E_{11}-E_{12}+E_3+E_4+E_7)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_7^+ + f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_7^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{11}-E_{12}+E_1+E_2+E_7)(-E_5-E_{11}-E_{12}+E_3+E_4+E_7)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{11}^- f_5^+ + f_3^- f_4^- f_6^- f_9^- f_5^+ f_{12}^+}{(-E_5-E_6+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_4^+ f_9^+ f_{12}^+ + f_1^- f_3^- f_5^- f_6^- f_9^+ f_{12}^+ + f_1^- f_5^- f_6^- f_{11}^- f_4^+ f_9^+ + f_1^- f_3^- f_5^- f_6^- f_{11}^- f_9^+}{(-E_5-E_6+E_2+E_9)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_9+E_7)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})}
\end{array}\right.$$

$$
\begin{pmatrix}
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- + f_1^- f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ + f_1^- f_2^- f_5^- f_6^- f_7^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_5^+ f_{12}^+ + f_1^- f_2^- f_6^- f_9^- f_4^+ f_5^+ f_{12}^+ + f_1^- f_2^- f_6^- f_9^- f_{11}^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- + f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_5^+ f_{12}^+ + f_1^- f_3^- f_4^- f_6^- f_9^- f_{11}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_5^+ + f_1^- f_2^- f_7^- f_8^- f_4^+ f_5^+ f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_5^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_5^+ f_{12}^+ + f_1^- f_2^- f_8^- f_9^- f_4^+ f_5^+ f_{12}^+ + f_1^- f_2^- f_3^- f_8^- f_9^- f_{11}^- f_5^+ + f_1^- f_2^- f_8^- f_9^- f_{11}^- f_4^+ f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^- + f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ + f_1^- f_2^- f_6^- f_7^- f_8^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_2-E_6+E_8+E_{10})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_8^+ f_{12}^+ + f_1^- f_2^- f_6^- f_9^- f_{11}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^- f_8^+ + f_1^- f_2^- f_6^- f_9^- f_4^+ f_8^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_2-E_6+E_8+E_{10})(-E_2-E_6-E_9+E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+ + f_1^- f_3^- f_4^- f_7^- f_8^- f_5^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_5^+ f_{12}^+ + f_1^- f_3^- f_4^- f_8^- f_9^- f_{11}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{12}^+ + f_1^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_{11}^- f_8^+ + f_1^- f_3^- f_4^- f_6^- f_9^- f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_3-E_4-E_6-E_9+E_1+E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_2+E_5+E_{10})(-E_{11}-E_{12}+E_6+E_7)(-E_5-E_{11}-E_{12}+E_1+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_1-E_2+E_5+E_{10})(-E_5-E_{11}-E_{12}+E_1+E_7+E_8)(-E_5-E_{11}-E_{12}+E_1+E_2+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_3-E_4+E_5+E_{10})(-E_{11}-E_{12}+E_6+E_7)(-E_5-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_5-E_{11}-E_{12}+E_1+E_7+E_8)(-E_5-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_6^+ + f_1^- f_2^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_{11}-E_{12}+E_6+E_7)(-E_8-E_{11}-E_{12}+E_2+E_6+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_{11}-E_{12}+E_6+E_7)(-E_1-E_8-E_{11}-E_{12}+E_3+E_4+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- f_2^+ + f_3^- f_4^- f_5^- f_6^- f_7^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{11}^- f_2^+ f_5^+ + f_3^- f_4^- f_6^- f_9^- f_2^+ f_5^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_5^+ + f_3^- f_4^- f_7^- f_8^- f_2^+ f_5^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_7-E_8+E_2+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_2^+ f_5^+ f_{12}^+ + f_3^- f_4^- f_8^- f_9^- f_{11}^- f_2^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_2^+ f_{12}^+ + f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_2-E_6+E_8+E_{10})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{11}^- f_2^+ f_8^+ + f_3^- f_4^- f_6^- f_9^- f_2^+ f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_2-E_6+E_8+E_{10})(-E_2-E_6-E_9+E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_3-E_4+E_5+E_{10})(-E_{11}-E_{12}+E_6+E_7)(-E_5-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_2-E_5-E_{11}-E_{12}+E_3+E_4+E_7+E_8)(-E_5-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_{11}-E_{12}+E_6+E_7)(-E_8-E_{11}-E_{12}+E_2+E_6+E_9)} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_5^+ f_7^+ f_{12}^+ + f_1^- f_2^- f_3^- f_9^- f_{11}^- f_5^+ f_7^+ + f_1^- f_2^- f_9^- f_{11}^- f_4^+ f_5^+ f_7^+ + f_1^- f_2^- f_9^- f_4^+ f_5^+ f_7^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^+ + f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{11}^- + f_1^- f_2^- f_6^- f_7^- f_9^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_2^+ f_5^+ f_7^+ + f_3^- f_4^- f_9^- f_2^+ f_5^+ f_7^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_2^+ f_{12}^+ + f_3^- f_4^- f_6^- f_7^- f_9^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_5^+ f_7^+ f_{12}^+ + f_1^- f_3^- f_4^- f_9^- f_{11}^- f_5^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^+ + f_1^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- + f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_9^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^- f_{11}^- + f_1^- f_2^- f_8^- f_9^- f_{10}^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^- f_7^+ + f_1^- f_2^- f_9^- f_{10}^- f_{11}^- f_4^+ f_7^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_7^+ f_{12}^+ + f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_7^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_2^+ + f_3^- f_4^- f_7^- f_8^- f_{10}^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^- f_2^+ f_{12}^+ + f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_2^+ f_7^+ + f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_7^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_{11}-E_{12}+E_6+E_7)(-E_1-E_7-E_8+E_5+E_{11}+E_{12})(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_{11}-E_{12}+E_6+E_7)(-E_3-E_4-E_7-E_8+E_2+E_5+E_{11}+E_{12})(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_7^+ + f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_{11}-E_{12}+E_6+E_7)(-E_1-E_2-E_9+E_5+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_{11}-E_{12}+E_6+E_7)(-E_3-E_4-E_9+E_5+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{11}^- f_{12}^- + f_1^- f_2^- f_8^- f_9^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2-E_9+E_5+E_{11}+E_{12})(-E_8-E_{11}-E_{12}+E_2+E_6+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{11}^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4-E_9+E_5+E_{11}+E_{12})(-E_8-E_{11}-E_{12}+E_2+E_6+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- + f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_1-E_7-E_8-E_{10}+E_3+E_4+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_7^+ + f_1^- f_3^- f_4^- f_9^- f_{10}^- f_7^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_{11}+E_{12})}
\end{pmatrix}
$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,2\}\{5,6|V|7,12\}\{7,8|V|9,10\}\{9,10|V|11,6\}\{11,12|V|1,8\}\left(\begin{array}{r}
\frac{+f_1^-f_3^-f_4^-f_6^-f_7^-f_8^-f_{10}^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_8^-f_{10}^++f_1^-f_3^-f_4^-f_6^-f_7^-f_8^-f_9^--f_1^-f_2^-f_6^-f_7^-f_8^-f_4^+f_{10}^+-f_1^-f_2^-f_6^-f_7^-f_8^-f_9^-f_4^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_8^-f_9^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_6+E_{11})(-E_1-E_6+E_7+E_{12})}\\
\frac{+f_1^-f_2^-f_7^-f_8^-f_9^-f_4^+f_{11}^+-f_1^-f_3^-f_4^-f_7^-f_8^-f_9^-f_{11}^++f_1^-f_2^-f_3^-f_7^-f_8^-f_9^-f_{11}^++f_1^-f_2^-f_3^-f_7^-f_8^-f_{10}^+f_{11}^+-f_1^-f_3^-f_4^-f_7^-f_8^-f_{10}^+f_{11}^++f_1^-f_2^-f_7^-f_8^-f_4^+f_{10}^+f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_6+E_{11})(-E_1-E_8+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_6^-f_7^-f_9^-f_{10}^-f_4^++f_1^-f_2^-f_3^-f_6^-f_7^-f_9^-f_{10}^--f_1^-f_3^-f_4^-f_6^-f_7^-f_9^-f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_6+E_7+E_{12})}\\
\frac{+f_1^-f_2^-f_6^-f_9^-f_{10}^-f_4^+f_8^+-f_1^-f_3^-f_4^-f_6^-f_9^-f_{10}^-f_8^++f_1^-f_2^-f_3^-f_6^-f_9^-f_{10}^-f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_6-E_8+E_9+E_{10}+E_{12})}\\
\frac{+f_1^-f_2^-f_9^-f_{10}^-f_4^+f_8^+f_{11}^++f_1^-f_2^-f_3^-f_9^-f_{10}^-f_8^+f_{11}^+-f_1^-f_3^-f_4^-f_9^-f_{10}^-f_8^+f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_8+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_7^-f_9^-f_{10}^-f_4^+f_{11}^++f_1^-f_2^-f_3^-f_7^-f_9^-f_{10}^-f_{11}^+-f_1^-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_9-E_{10}+E_7+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_8^-f_{12}^-f_{10}^++f_1^-f_2^-f_7^-f_8^-f_{12}^-f_4^+f_{10}^+-f_1^-f_3^-f_4^-f_7^-f_8^-f_{12}^-f_{10}^++f_1^-f_2^-f_3^-f_7^-f_8^-f_9^-f_{12}^--f_1^-f_3^-f_4^-f_7^-f_8^-f_9^-f_{12}^-+f_1^-f_2^-f_7^-f_8^-f_9^-f_{12}^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_7-E_8+E_9+E_{10})(-E_7-E_{12}+E_1+E_6)(-E_1-E_8+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_9^-f_{10}^-f_{12}^--f_1^-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^-+f_1^-f_2^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_9-E_{10}+E_7+E_8)(-E_7-E_{12}+E_1+E_6)(-E_1-E_9-E_{10}+E_7+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_9^-f_{10}^-f_{12}^-f_4^+f_8^+-f_1^-f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_8^++f_1^-f_2^-f_3^-f_9^-f_{10}^-f_{12}^-f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_1+E_6+E_8)(-E_1-E_8+E_{11}+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_6^-f_7^-f_{11}^-f_{10}^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_{11}^-f_{10}^+-f_1^-f_2^-f_6^-f_7^-f_{11}^-f_4^+f_{10}^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_9^-f_{11}^--f_1^-f_2^-f_6^-f_7^-f_9^-f_{11}^-f_4^++f_1^-f_3^-f_4^-f_6^-f_7^-f_9^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_6-E_{11}+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_1-E_6+E_7+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_6^-f_9^-f_{11}^-f_8^+-f_1^-f_2^-f_3^-f_6^-f_9^-f_{11}^-f_8^+-f_1^-f_2^-f_6^-f_9^-f_{11}^-f_4^+f_8^+-f_1^-f_2^-f_3^-f_6^-f_{11}^-f_8^+f_{10}^+-f_1^-f_2^-f_6^-f_{11}^-f_4^+f_8^+f_{10}^++f_1^-f_3^-f_4^-f_6^-f_{11}^-f_8^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_6-E_{11}+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_6^-f_9^-f_{10}^-f_{12}^+-f_1^-f_2^-f_6^-f_9^-f_{10}^-f_4^+f_{12}^+-f_1^-f_2^-f_3^-f_6^-f_9^-f_{10}^-f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_6+E_7+E_{12})(-E_9-E_{10}-E_{12}+E_1+E_6+E_8)}\\
\frac{+f_1^-f_2^-f_6^-f_{11}^-f_4^+f_{10}^+f_{12}^+-f_1^-f_3^-f_4^-f_6^-f_{11}^-f_{10}^+f_{12}^++f_1^-f_2^-f_3^-f_6^-f_{11}^-f_{10}^+f_{12}^+-f_1^-f_3^-f_4^-f_6^-f_9^-f_{11}^-f_{12}^++f_1^-f_2^-f_3^-f_6^-f_9^-f_{11}^-f_{12}^++f_1^-f_2^-f_6^-f_9^-f_{11}^-f_4^+f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_6-E_{11}+E_9+E_{10})(-E_1-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_1+E_8)}\\
\frac{+f_1^-f_2^-f_9^-f_{10}^-f_4^+f_{11}^+f_{12}^+-f_1^-f_3^-f_4^-f_9^-f_{10}^-f_{11}^+f_{12}^++f_1^-f_2^-f_3^-f_9^-f_{10}^-f_{11}^+f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_9-E_{10}+E_6+E_{11})(-E_{11}-E_{12}+E_1+E_8)(-E_1-E_9-E_{10}+E_7+E_{11}+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_6^-f_8^-f_{10}^+f_{12}^+-f_1^-f_2^-f_3^-f_6^-f_8^-f_{10}^+f_{12}^+-f_1^-f_2^-f_3^-f_6^-f_8^-f_9^-f_{12}^++f_1^-f_3^-f_4^-f_6^-f_8^-f_9^-f_{12}^+-f_1^-f_2^-f_6^-f_8^-f_4^+f_{10}^+f_{12}^+-f_1^-f_2^-f_6^-f_8^-f_9^-f_4^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_1-E_6+E_7+E_{12})(-E_1-E_6-E_8+E_9+E_{10}+E_{12})(-E_1-E_8+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_1^+f_{10}^+-f_1^-f_2^-f_3^-f_7^-f_{11}^-f_{12}^-f_{10}^++f_3^-f_4^-f_7^-f_9^-f_{11}^-f_{12}^-f_1^+-f_1^-f_2^-f_7^-f_9^-f_{11}^-f_{12}^-f_4^+-f_1^-f_2^-f_3^-f_7^-f_9^-f_{11}^-f_{12}^--f_1^-f_2^-f_7^-f_{11}^-f_{12}^-f_4^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_7-E_{12}+E_1+E_6)(-E_{11}-E_{12}+E_1+E_8)(-E_7-E_{11}-E_{12}+E_1+E_9+E_{10})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_8^-f_9^-f_2^++f_3^-f_4^-f_6^-f_7^-f_8^-f_2^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_6+E_{11})(-E_3-E_4-E_6+E_2+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_9^-f_2^+f_{11}^++f_3^-f_4^-f_7^-f_8^-f_2^+f_{10}^+f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_6+E_{11})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_9^-f_{10}^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_2+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_9^-f_{10}^-f_2^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6-E_8+E_2+E_9+E_{10}+E_{12})}\\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_2^+f_8^+f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_9^-f_{10}^-f_2^+f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_9-E_{10}+E_2+E_7+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{12}^-f_2^+f_{10}^++f_3^-f_4^-f_7^-f_8^-f_9^-f_{12}^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_7-E_8+E_9+E_{10})(-E_2-E_7-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_7+E_8)(-E_2-E_7-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_9-E_{10}+E_2+E_7+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_2^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_7+E_8)(-E_2-E_9-E_{10}-E_{12}+E_3+E_4+E_6+E_8)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_{11}^-f_2^+f_{10}^++f_3^-f_4^-f_6^-f_7^-f_9^-f_{11}^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_6-E_{11}+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_9^-f_{11}^-f_2^+f_8^++f_3^-f_4^-f_6^-f_{11}^-f_2^+f_8^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_6-E_{11}+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_9^-f_{10}^-f_2^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_2+E_7+E_{12})(-E_2-E_9-E_{10}-E_{12}+E_3+E_4+E_6+E_8)}\\
\frac{+f_3^-f_4^-f_6^-f_{11}^-f_2^+f_{10}^+f_{12}^++f_3^-f_4^-f_6^-f_9^-f_{11}^-f_2^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_7+E_{12})(-E_2-E_{11}-E_{12}+E_3+E_4+E_8)}\\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_2^+f_{11}^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_{11}-E_{12}+E_3+E_4+E_8)(-E_3-E_4-E_9-E_{10}+E_2+E_7+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_8^-f_2^+f_{10}^+f_{12}^++f_3^-f_4^-f_6^-f_8^-f_9^-f_2^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_3-E_4-E_6+E_2+E_7+E_{12})(-E_3-E_4-E_6-E_8+E_2+E_9+E_{10}+E_{12})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_{10}^++f_2^-f_3^-f_4^-f_7^-f_9^-f_{11}^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2-E_7-E_{12}+E_3+E_4+E_6)(-E_2-E_{11}-E_{12}+E_3+E_4+E_8)(-E_2-E_7-E_{11}-E_{12}+E_3+E_4+E_9+E_{10})}\\
\frac{+f_2^-f_5^-f_6^-f_7^-f_8^-f_9^-f_4^+-f_3^-f_4^-f_5^-f_6^-f_7^-f_8^-f_9^-+f_2^-f_3^-f_5^-f_6^-f_7^-f_8^-f_9^-+f_2^-f_3^-f_5^-f_6^-f_7^-f_8^-f_{10}^+-f_3^-f_4^-f_5^-f_6^-f_7^-f_8^-f_{10}^++f_2^-f_5^-f_6^-f_7^-f_8^-f_4^+f_{10}^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^-f_5^-f_7^-f_8^-f_9^-f_4^+f_{11}^+-f_3^-f_4^-f_5^-f_7^-f_8^-f_9^-f_{11}^++f_2^-f_3^-f_5^-f_7^-f_8^-f_9^-f_{11}^+-f_3^-f_4^-f_5^-f_7^-f_8^-f_{10}^+f_{11}^++f_2^-f_5^-f_7^-f_8^-f_4^+f_{10}^+f_{11}^++f_2^-f_3^-f_5^-f_7^-f_8^-f_{10}^+f_{11}^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_6+E_{11})(-E_5-E_8+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_7^-f_9^-f_{10}^--f_2^-f_5^-f_6^-f_7^-f_9^-f_{10}^-f_4^+-f_2^-f_3^-f_5^-f_6^-f_7^-f_9^-f_{10}^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_9^-f_{10}^-f_8^+-f_2^-f_5^-f_6^-f_9^-f_{10}^-f_4^+f_8^+-f_2^-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_8^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_9^-f_{10}^-f_8^+f_{11}^+-f_2^-f_5^-f_9^-f_{10}^-f_4^+f_8^+f_{11}^+-f_2^-f_3^-f_5^-f_9^-f_{10}^-f_8^+f_{11}^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_8+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_7^-f_9^-f_{10}^-f_4^+f_{11}^++f_2^-f_3^-f_5^-f_7^-f_9^-f_{10}^-f_{11}^+-f_3^-f_4^-f_5^-f_7^-f_9^-f_{10}^-f_{11}^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_9-E_{10}+E_7+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_7^-f_8^-f_{12}^-f_4^+f_{10}^++f_2^-f_5^-f_7^-f_8^-f_9^-f_{12}^-f_4^+-f_3^-f_4^-f_5^-f_7^-f_8^-f_9^-f_{12}^-+f_2^-f_3^-f_5^-f_7^-f_8^-f_{12}^-f_{10}^+-f_3^-f_4^-f_5^-f_7^-f_8^-f_{12}^-f_{10}^++f_2^-f_3^-f_5^-f_7^-f_8^-f_9^-f_{12}^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_7-E_8+E_9+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_5-E_8+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_7^-f_9^-f_{10}^-f_{12}^--f_2^-f_3^-f_5^-f_7^-f_9^-f_{10}^-f_{12}^--f_2^-f_5^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_7+E_8)(-E_7-E_{12}+E_5+E_6)(-E_5-E_9-E_{10}+E_7+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_9^-f_{10}^-f_{12}^-f_4^+f_8^+-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{12}^-f_8^++f_2^-f_3^-f_5^-f_9^-f_{10}^-f_{12}^-f_8^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)(-E_5-E_8+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_6^-f_7^-f_{11}^-f_4^+f_{10}^++f_2^-f_3^-f_5^-f_6^-f_7^-f_{11}^-f_{10}^+-f_3^-f_4^-f_5^-f_6^-f_7^-f_{11}^-f_{10}^+-f_3^-f_4^-f_5^-f_6^-f_7^-f_9^-f_{11}^-+f_2^-f_3^-f_5^-f_6^-f_7^-f_9^-f_{11}^-+f_2^-f_5^-f_6^-f_7^-f_9^-f_{11}^-f_4^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_6-E_{11}+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_6^-f_9^-f_{11}^-f_8^++f_2^-f_5^-f_6^-f_{11}^-f_4^+f_8^+f_{10}^+-f_3^-f_4^-f_5^-f_6^-f_9^-f_{11}^-f_8^++f_2^-f_5^-f_6^-f_9^-f_{11}^-f_4^+f_8^++f_2^-f_3^-f_5^-f_6^-f_{11}^-f_8^+f_{10}^+-f_3^-f_4^-f_5^-f_6^-f_{11}^-f_8^+f_{10}^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_6-E_{11}+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_8+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^+-f_2^-f_5^-f_6^-f_9^-f_{10}^-f_4^+f_{12}^+-f_2^-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_6+E_7+E_{12})(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)}\\
\frac{+f_2^-f_5^-f_6^-f_{11}^-f_4^+f_{10}^+f_{12}^++f_2^-f_3^-f_5^-f_6^-f_{11}^-f_{10}^+f_{12}^+-f_3^-f_4^-f_5^-f_6^-f_{11}^-f_{10}^+f_{12}^++f_2^-f_5^-f_6^-f_9^-f_{11}^-f_4^+f_{12}^+-f_3^-f_4^-f_5^-f_6^-f_9^-f_{11}^-f_{12}^++f_2^-f_3^-f_5^-f_6^-f_9^-f_{11}^-f_{12}^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_5+E_8)}\\
\frac{+f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{11}^+f_{12}^+-f_2^-f_5^-f_9^-f_{10}^-f_4^+f_{11}^+f_{12}^+-f_2^-f_3^-f_5^-f_9^-f_{10}^-f_{11}^+f_{12}^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_6+E_{11})(-E_{11}-E_{12}+E_5+E_8)(-E_5-E_9-E_{10}+E_7+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_8^-f_9^-f_{12}^+-f_2^-f_3^-f_5^-f_6^-f_8^-f_{10}^+f_{12}^+-f_2^-f_5^-f_6^-f_8^-f_4^+f_{10}^+f_{12}^++f_3^-f_4^-f_5^-f_6^-f_8^-f_{10}^+f_{12}^+-f_2^-f_3^-f_5^-f_6^-f_8^-f_9^-f_{12}^+-f_2^-f_5^-f_6^-f_8^-f_9^-f_4^+f_{12}^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_7+E_{12})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})(-E_5-E_8+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_7^-f_{11}^-f_{12}^-f_4^+f_{10}^++f_2^-f_3^-f_5^-f_7^-f_{11}^-f_{12}^-f_{10}^+-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_5^+f_{10}^+-f_3^-f_4^-f_7^-f_9^-f_{11}^-f_{12}^-f_5^++f_2^-f_5^-f_7^-f_9^-f_{11}^-f_{12}^-f_4^++f_2^-f_3^-f_5^-f_7^-f_9^-f_{11}^-f_{12}^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_5+E_8)(-E_7-E_{11}-E_{12}+E_5+E_9+E_{10})}
\end{array}\right)$$

$$+\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|9,10\}\{9,10|V|7,12\}\{11,12|V|11,2\}f_5^- f_{11}^- \left(\begin{array}{c}
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- + f_1^- f_2^- f_3^- f_7^- f_{10}^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- + f_1^- f_2^- f_7^- f_4^+ f_{10}^+ + f_1^- f_2^- f_7^- f_9^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_9^- + f_1^- f_2^- f_3^- f_7^- f_9^- - f_1^- f_2^- f_9^- f_{10}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2+E_8)(-E_9-E_{10}+E_2+E_7)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_1^+ f_{10}^+ - f_3^- f_4^- f_9^- f_{10}^- f_1^+ + f_3^- f_4^- f_7^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_4^+ f_{10}^+ - f_1^- f_6^- f_9^- f_{10}^- f_4^+ + f_3^- f_4^- f_6^- f_9^- f_{10}^- - f_1^- f_3^- f_6^- f_9^- f_{10}^- - f_3^- f_4^- f_6^- f_7^- f_{10}^+ + f_1^- f_6^- f_7^- f_9^- f_4^+ + f_1^- f_3^- f_6^- f_7^- f_9^- + f_1^- f_3^- f_6^- f_7^- f_{10}^+ - f_3^- f_4^- f_6^- f_7^- f_9^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_6+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{10}^+ - f_3^- f_4^- f_7^- f_8^- f_9^- + f_3^- f_4^- f_8^- f_9^- f_{10}^- + f_1^- f_3^- f_7^- f_8^- f_9^- + f_1^- f_7^- f_8^- f_4^+ f_{10}^+ - f_1^- f_8^- f_9^- f_{10}^- f_4^+ + f_1^- f_7^- f_8^- f_9^- f_4^+ - f_1^- f_3^- f_8^- f_9^- f_{10}^- - f_3^- f_4^- f_7^- f_8^- f_{10}^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_9^- f_{10}^- f_7^+ + f_1^- f_9^- f_{10}^- f_4^+ f_7^+ - f_3^- f_4^- f_9^- f_{10}^- f_7^+}{(-E_9-E_{10}+E_2+E_7)(-E_1-E_9-E_{10}+E_3+E_4+E_7)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_7^- f_{12}^- f_{10}^+ + f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_1^- f_3^- f_9^- f_{10}^- f_{12}^- - f_1^- f_7^- f_9^- f_{12}^- f_4^+ + f_3^- f_4^- f_7^- f_9^- f_{12}^- - f_1^- f_7^- f_{12}^- f_4^+ f_{10}^+ - f_1^- f_3^- f_7^- f_9^- f_{12}^-}{(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_{12}+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_9+E_{10})}
\end{array} \right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,8\}\{7,8|V|9,12\}\{9,10|V|5,10\}\{11,12|V|11,2\}f_{10}^- f_{11}^- \left(\begin{array}{c}
\frac{+f_2^- f_3^- f_4^- f_5^- f_8^+ - f_1^- f_2^- f_5^- f_7^- f_4^+ - f_1^- f_2^- f_5^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_5^- f_8^+ - f_1^- f_2^- f_3^- f_5^- f_7^- + f_2^- f_3^- f_4^- f_5^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_5+E_9)(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- + f_1^- f_2^- f_7^- f_8^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_7-E_8+E_2+E_9)(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- - f_1^- f_2^- f_3^- f_7^- f_9^- - f_1^- f_2^- f_3^- f_9^- f_8^+ - f_1^- f_2^- f_9^- f_4^+ f_8^+ - f_1^- f_2^- f_7^- f_9^- f_4^+ + f_2^- f_3^- f_4^- f_9^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_9+E_5)(-E_2-E_9+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_1^+ + f_3^- f_4^- f_5^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_5+E_9)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_1^+ + f_3^- f_4^- f_9^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_4^+ f_8^+ - f_3^- f_4^- f_5^- f_6^- f_8^+ - f_3^- f_4^- f_5^- f_6^- f_7^- + f_1^- f_3^- f_5^- f_6^- f_8^+ + f_1^- f_3^- f_5^- f_6^- f_7^- + f_1^- f_5^- f_6^- f_7^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5+E_9)(-E_6+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- - f_3^- f_4^- f_7^- f_8^- f_6^+ + f_1^- f_6^- f_7^- f_8^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_6+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_8^+ - f_1^- f_3^- f_6^- f_7^- f_9^- - f_1^- f_6^- f_9^- f_4^+ f_8^+ + f_3^- f_4^- f_6^- f_7^- f_9^- - f_1^- f_3^- f_6^- f_9^- f_8^+ - f_1^- f_6^- f_7^- f_9^- f_4^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_6-E_9+E_7+E_8)(-E_6+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_5^+ - f_3^- f_4^- f_5^- f_7^- f_8^- + f_1^- f_7^- f_8^- f_4^+ f_5^+}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_5+E_6)(-E_5+E_9)(-E_7-E_8+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- - f_1^- f_3^- f_7^- f_8^- f_9^+ - f_1^- f_7^- f_8^- f_4^+ f_9^+}{(-E_9+E_5)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_7-E_8+E_6+E_9)(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_5^- f_{12}^- f_4^+ f_8^+ - f_3^- f_4^- f_5^- f_{12}^- f_8^+ + f_1^- f_3^- f_5^- f_{12}^- f_8^+ + f_1^- f_3^- f_5^- f_7^- f_{12}^- + f_1^- f_5^- f_7^- f_{12}^- f_4^+ - f_3^- f_4^- f_5^- f_7^- f_{12}^-}{(-E_5+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_5-E_{12}+E_7+E_8)} \\
\frac{+f_1^- f_9^- f_{12}^- f_4^+ f_8^+ + f_1^- f_7^- f_9^- f_{12}^- f_4^+ - f_3^- f_4^- f_9^- f_{12}^- f_8^+ + f_1^- f_3^- f_9^- f_{12}^- f_8^+ + f_1^- f_3^- f_7^- f_9^- f_{12}^- - f_3^- f_4^- f_7^- f_9^- f_{12}^-}{(-E_9+E_5)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{12}^+ - f_1^- f_3^- f_7^- f_8^- f_{12}^- - f_1^- f_7^- f_8^- f_{12}^- f_4^+}{(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_{12}+E_6)(-E_7-E_8+E_5+E_{12})(-E_7-E_8+E_9+E_{12})}
\end{array} \right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|9,2\}\{9,10|V|11,12\}\{11,12|V|7,10\}f_5^- \left(\begin{array}{c}
\frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- + f_1^- f_2^- f_7^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- - f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- + f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- - f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_7+E_9)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^+ + f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{11}^- - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^- - f_1^- f_2^- f_9^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- + f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- + f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2+E_8)(-E_9+E_7)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_{11}^- f_{12}^- f_{10}^+ - f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ - f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2+E_8)(-E_{11}-E_{12}+E_7+E_{10})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_1^+ f_{12}^+ - f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_1^+ + f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_7+E_9)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_1^+ + f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_{12}^+ - f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_9+E_7)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_{11}-E_{12}+E_7+E_{10})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- + f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- + f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^- - f_1^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- - f_1^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{12}^+ + f_1^- f_6^- f_7^- f_{10}^- f_4^+ f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{12}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_7+E_9)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{11}^- + f_1^- f_6^- f_9^- f_{10}^- f_{11}^- f_4^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^+ + f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- - f_1^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- + f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_6^- f_9^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{11}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_9+E_7)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_1^- f_3^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_1^- f_6^- f_{11}^- f_{12}^- f_4^+ f_{10}^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_{11}-E_{12}+E_7+E_{10})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- + f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ + f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- - f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_7+E_9)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_3^- f_8^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_8^- f_9^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_3^- f_8^- f_9^- f_{11}^- f_{12}^- + f_1^- f_8^- f_9^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_4^- f_8^- f_9^- f_{11}^- f_{12}^- + f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{11}^- - f_1^- f_3^- f_8^- f_9^- f_{10}^- f_{11}^- - f_1^- f_8^- f_9^- f_{10}^- f_{11}^- f_4^+}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_9+E_7)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_1^- f_3^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_1^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_{11}-E_{12}+E_7+E_{10})(-E_{11}-E_{12}+E_9+E_{10})}
\end{array} \right)$$

$$+\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,2\}\{7,8|V|5,10\}\{9,10|V|11,12\}\{11,12|V|9,8\} \left(\begin{array}{c}
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^+ - f_1^- f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{12}^+ - f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+ + f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^- + f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{12}^+ + f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ f_{12}^+ - f_2^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- + f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- + f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{11}^- - f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{11}^- + f_1^- f_2^- f_5^- f_8^- f_9^- f_{11}^- f_4^+ - f_2^- f_3^- f_4^- f_5^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7+E_5)(-E_8+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_{12}^+ + f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- + f_2^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^- + f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{11}^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^- - f_1^- f_2^- f_3^- f_7^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_5+E_7)(-E_{10}+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_9^+ + f_2^- f_3^- f_4^- f_5^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7+E_5)(-E_{11}-E_{12}+E} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_1^+ f_{12}^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_1^+ f_{12}^+ + f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_1^+ - f_3^- f_4^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ f_{12}^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_1^+ f_{12}^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_1^+ + f_3^- f_4^- f_5^- f_{10}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_1} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- + f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{11}^- - f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{11}^- + f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- f_{11}^- - f_1^- f_5^- f_6^- f_8^- f_9^- f_{11}^- f_4^+ + f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{12}^+ + f_1^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_8^- f_9^- f_{12}^+ + f_1^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- + f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- - f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- - f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ - f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ f_{12}^+ + f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ - f_1^- f_6^- f_7^- f_8^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_8+E_{10})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_4^+ + f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^- - f_1^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- + f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- + f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- - f_3^- f_4^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{12}^+ + f_3^- f_4^- f_5^- f_6^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5+E_7)(-E_{10}+E_8)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_9^+ + f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_9^+ - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_3^- f_6^- f_7^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5+E_7)(-E_{11}-E_{12}+E}
\end{array} \right.$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,8\}\{7,8|V|9,12\}\{9,10|V|11,2\}\{11,12|V|5,10\}\left(\begin{array}{r}
\frac{+f_1^-f_2^-f_5^-f_9^-f_{10}^-f_4^+f_8^++f_1^-f_2^-f_3^-f_5^-f_9^-f_{10}^-f_8^++f_1^-f_2^-f_5^-f_7^-f_9^-f_{10}^-f_4^++f_1^-f_2^-f_3^-f_5^-f_7^-f_9^-f_{10}^--f_3^-f_4^-f_5^-f_7^-f_9^-f_{10}^-f_2^+-f_1^-f_2^-f_5^-f_7^-f_{11}^-f_4^+f_9^++f_3^-f_4^-f_5^-f_7^-f_{11}^-f_2^+f_9^+-f_1^-f_2^-f_3^-f_5^-f_7^-f_{11}^-f_9^+-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_2^+f_8^+-f_1^-f_2^-f_5^-f_{11}^-f_4^+f_8^+f_9^+-f_1^-f_2^-f_3^-f_5^-f_{11}^-f_8^+f_9^++f_3^-f_4^-f_5^-f_{11}^-f_2^+f_8^+f_9^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_5+E_9+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_7^-f_8^-f_9^-f_{10}^--f_3^-f_4^-f_7^-f_8^-f_9^-f_{10}^-f_2^++f_1^-f_2^-f_7^-f_8^-f_9^-f_{10}^-f_4^+-f_1^-f_2^-f_3^-f_7^-f_8^-f_{11}^-f_9^+-f_1^-f_2^-f_7^-f_8^-f_{11}^-f_4^+f_9^++f_3^-f_4^-f_7^-f_8^-f_{11}^-f_2^+f_9^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_9-E_{10}+E_2+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^-f_2^-f_5^-f_7^-f_{10}^-f_{11}^-f_4^+-f_3^-f_4^-f_5^-f_7^-f_{10}^-f_{11}^-f_2^++f_1^-f_2^-f_3^-f_5^-f_{10}^-f_{11}^-f_8^+-f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_2^+f_8^++f_1^-f_2^-f_5^-f_{10}^-f_{11}^-f_4^+f_8^++f_1^-f_2^-f_3^-f_5^-f_7^-f_{10}^-f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_7^-f_8^-f_{10}^-f_{11}^-+f_1^-f_2^-f_7^-f_8^-f_{10}^-f_{11}^-f_4^+-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{11}^-f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_5^-f_7^-f_{11}^-f_{12}^-f_4^+-f_1^-f_2^-f_3^-f_5^-f_7^-f_{10}^-f_{12}^+-f_1^-f_2^-f_3^-f_5^-f_{10}^-f_8^+f_{12}^++f_3^-f_4^-f_5^-f_7^-f_{10}^-f_2^+f_{12}^+-f_1^-f_2^-f_5^-f_{10}^-f_4^+f_8^+f_{12}^++f_3^-f_4^-f_5^-f_{10}^-f_2^+f_8^+f_{12}^+-f_1^-f_2^-f_5^-f_7^-f_{10}^-f_4^+f_{12}^+-f_3^-f_4^-f_5^-f_7^-f_{11}^-f_{12}^-f_2^++f_1^-f_2^-f_3^-f_5^-f_7^-f_{11}^-f_{12}^--f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_2^+f_8^++f_1^-f_2^-f_3^-f_5^-f_{11}^-f_{12}^-f_8^++f_1^-f_2^-f_5^-f_{11}^-f_{12}^-f_4^+f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_2-E_5+E_9+E_{12})(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_1^-f_2^-f_3^-f_7^-f_8^-f_{11}^-f_{12}^--f_1^-f_2^-f_3^-f_7^-f_8^-f_{10}^-f_{12}^+-f_1^-f_2^-f_7^-f_8^-f_{10}^-f_4^+f_{12}^++f_3^-f_4^-f_7^-f_8^-f_{10}^-f_2^+f_{12}^+-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-f_2^++f_1^-f_2^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_7-E_8+E_9+E_{12})(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_1^-f_2^-f_9^-f_{11}^-f_{12}^-f_4^+f_8^++f_1^-f_2^-f_3^-f_9^-f_{11}^-f_{12}^-f_8^++f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^-f_2^++f_1^-f_2^-f_3^-f_7^-f_9^-f_{11}^-f_{12}^--f_1^-f_2^-f_9^-f_{10}^-f_{12}^-f_4^+f_8^+-f_1^-f_2^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^++f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_2^+f_8^++f_1^-f_2^-f_7^-f_9^-f_{11}^-f_{12}^-f_4^+-f_3^-f_4^-f_7^-f_9^-f_{11}^-f_{12}^-f_2^+-f_1^-f_2^-f_3^-f_9^-f_{10}^-f_{12}^-f_8^+-f_1^-f_2^-f_3^-f_7^-f_9^-f_{10}^-f_{12}^--f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_2^+f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_2+E_5)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^-f_2^-f_3^-f_7^-f_{11}^-f_{12}^-f_{10}^++f_1^-f_2^-f_7^-f_{11}^-f_{12}^-f_4^+f_{10}^+-f_3^-f_4^-f_{11}^-f_{12}^-f_2^+f_8^+f_{10}^+-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_2^+f_{10}^++f_1^-f_2^-f_{11}^-f_{12}^-f_4^+f_8^+f_{10}^++f_1^-f_2^-f_3^-f_{11}^-f_{12}^-f_8^+f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_{10})(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_{11}^-f_8^+f_9^+-f_1^-f_3^-f_4^-f_5^-f_7^-f_9^-f_{10}^--f_1^-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_8^++f_1^-f_3^-f_4^-f_5^-f_7^-f_{11}^-f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4-E_5+E_1+E_9+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_8^-f_9^-f_{10}^--f_1^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_8^++f_1^-f_3^-f_4^-f_5^-f_7^-f_{10}^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_7-E_8-E_{10}+E_3+E_4+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_{10}^-f_8^+f_{12}^++f_1^-f_3^-f_4^-f_5^-f_7^-f_{10}^-f_{12}^+-f_1^-f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_8^+-f_1^-f_3^-f_4^-f_5^-f_7^-f_{11}^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_3-E_4-E_5+E_1+E_9+E_{12})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{12}^+-f_1^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_9+E_{12})(-E_1-E_7-E_8-E_{10}+E_3+E_4+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^--f_1^-f_3^-f_4^-f_7^-f_9^-f_{11}^-f_{12}^-+f_1^-f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_8^+-f_1^-f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_1-E_9-E_{12}+E_3+E_4+E_5)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^-f_3^-f_4^-f_{11}^-f_{12}^-f_8^+f_{10}^++f_1^-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_{10})(-E_3-E_4-E_{11}-E_{12}+E_1+E_7+E_8+E_{10})} \\
\frac{+f_3^-f_4^-f_5^-f_7^-f_{11}^-f_6^+f_9^++f_1^-f_5^-f_6^-f_7^-f_9^-f_{10}^-f_4^++f_1^-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_8^+-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_6^+f_8^+-f_3^-f_4^-f_5^-f_7^-f_9^-f_{10}^-f_6^++f_1^-f_3^-f_5^-f_6^-f_7^-f_9^-f_{10}^--f_1^-f_3^-f_5^-f_6^-f_7^-f_{11}^-f_9^+-f_1^-f_5^-f_6^-f_7^-f_{11}^-f_4^+f_9^++f_1^-f_5^-f_6^-f_9^-f_{10}^-f_4^+f_8^+-f_1^-f_3^-f_5^-f_6^-f_{11}^-f_8^+f_9^+-f_1^-f_5^-f_6^-f_{11}^-f_4^+f_8^+f_9^++f_3^-f_4^-f_5^-f_{11}^-f_6^+f_8^+f_9^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_9+E_{12})} \\
\frac{+f_1^-f_3^-f_6^-f_7^-f_8^-f_{11}^-f_9^+-f_1^-f_3^-f_6^-f_7^-f_8^-f_9^-f_{10}^--f_1^-f_6^-f_7^-f_8^-f_9^-f_{10}^-f_4^++f_3^-f_4^-f_7^-f_8^-f_9^-f_{10}^-f_6^++f_1^-f_6^-f_7^-f_8^-f_{11}^-f_4^+f_9^+-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_6^+f_9^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^-f_5^-f_6^-f_{10}^-f_{11}^-f_4^+f_8^+-f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_6^+f_8^++f_1^-f_3^-f_5^-f_6^-f_{10}^-f_{11}^-f_8^+-f_3^-f_4^-f_5^-f_7^-f_{10}^-f_{11}^-f_6^++f_1^-f_3^-f_5^-f_6^-f_7^-f_{10}^-f_{11}^-+f_1^-f_5^-f_6^-f_7^-f_{10}^-f_{11}^-f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_6^-f_7^-f_8^-f_{10}^-f_{11}^-+f_1^-f_6^-f_7^-f_8^-f_{10}^-f_{11}^-f_4^+-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{11}^-f_6^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_8-E_{10}+E_6+E_{11}+E_{12})} \\
\frac{+f_1^-f_5^-f_6^-f_{10}^-f_4^+f_8^+f_{12}^++f_1^-f_3^-f_5^-f_6^-f_7^-f_{10}^-f_{12}^+-f_3^-f_4^-f_5^-f_7^-f_{10}^-f_6^+f_{12}^++f_1^-f_5^-f_6^-f_7^-f_{10}^-f_4^+f_{12}^+-f_3^-f_4^-f_5^-f_{10}^-f_6^+f_8^+f_{12}^++f_1^-f_3^-f_5^-f_6^-f_{10}^-f_8^+f_{12}^++f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_6^+f_8^+-f_1^-f_3^-f_5^-f_6^-f_{11}^-f_{12}^-f_8^+-f_1^-f_3^-f_5^-f_6^-f_7^-f_{11}^-f_{12}^--f_1^-f_5^-f_6^-f_7^-f_{11}^-f_{12}^-f_4^++f_3^-f_4^-f_5^-f_7^-f_{11}^-f_{12}^-f_6^+-f_1^-f_5^-f_6^-f_{11}^-f_{12}^-f_4^+f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_9+E_{12})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_6^-f_7^-f_8^-f_{10}^-f_{12}^+-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_6^+f_{12}^++f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-f_6^+-f_1^-f_6^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^+-f_1^-f_3^-f_6^-f_7^-f_8^-f_{11}^-f_{12}^-+f_1^-f_6^-f_7^-f_8^-f_{10}^-f_4^+f_{12}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_6+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_6^+f_8^++f_1^-f_3^-f_6^-f_9^-f_{10}^-f_{12}^-f_8^++f_3^-f_4^-f_7^-f_9^-f_{11}^-f_{12}^-f_6^++f_1^-f_6^-f_9^-f_{10}^-f_{12}^-f_4^+f_8^+-f_1^-f_3^-f_6^-f_9^-f_{11}^-f_{12}^-f_8^+-f_1^-f_3^-f_6^-f_7^-f_9^-f_{11}^-f_{12}^--f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_6^+f_8^+-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^-f_6^+-f_1^-f_6^-f_9^-f_{11}^-f_{12}^-f_4^+f_8^+-f_1^-f_6^-f_7^-f_9^-f_{11}^-f_{12}^-f_4^++f_1^-f_6^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^++f_1^-f_3^-f_6^-f_7^-f_9^-f_{10}^-f_{12}^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_5+E_6)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^-f_6^-f_7^-f_{11}^-f_{12}^-f_4^+f_{10}^++f_1^-f_3^-f_6^-f_7^-f_{11}^-f_{12}^-f_{10}^++f_1^-f_3^-f_6^-f_{11}^-f_{12}^-f_8^+f_{10}^+-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_6^+f_{10}^+-f_3^-f_4^-f_{11}^-f_{12}^-f_6^+f_8^+f_{10}^++f_1^-f_6^-f_{11}^-f_{12}^-f_4^+f_8^+f_{10}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_{10})(-E_6-E_{11}-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_1^-f_7^-f_8^-f_{11}^-f_4^+f_5^+f_9^++f_1^-f_3^-f_7^-f_8^-f_{11}^-f_5^+f_9^+-f_3^-f_4^-f_5^-f_{11}^-f_7^+f_8^+f_9^++f_3^-f_4^-f_5^-f_9^-f_{10}^-f_7^+f_8^+-f_1^-f_7^-f_8^-f_9^-f_{10}^-f_4^+f_5^+-f_1^-f_3^-f_7^-f_8^-f_9^-f_{10}^-f_5^+}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_5+E_6)(-E_7-E_8-E_{11}+E_5+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^-f_7^-f_8^-f_{10}^-f_{11}^-f_4^+f_5^++f_1^-f_3^-f_7^-f_8^-f_{10}^-f_{11}^-f_5^+-f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_7^+f_8^+}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_5+E_6)(-E_7-E_8-E_{11}+E_5+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_7^+f_8^+-f_1^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^+f_5^+-f_3^-f_4^-f_5^-f_{10}^-f_7^+f_8^+f_{12}^+-f_1^-f_3^-f_7^-f_8^-f_{11}^-f_{12}^-f_5^++f_1^-f_7^-f_8^-f_{10}^-f_4^+f_5^+f_{12}^++f_1^-f_3^-f_7^-f_8^-f_{10}^-f_5^+f_{12}^+}{(-E_7-E_8+E_2+E_5)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_1^-f_7^-f_8^-f_9^-f_{10}^-f_4^+f_{11}^+-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_9^+f_{10}^++f_1^-f_3^-f_7^-f_8^-f_9^-f_{10}^-f_{11}^+}{(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_7-E_8-E_{11}+E_5+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^-f_3^-f_5^-f_9^-f_{10}^-f_8^+f_{11}^+-f_3^-f_4^-f_5^-f_7^-f_{11}^-f_9^+f_{10}^++f_1^-f_3^-f_5^-f_7^-f_9^-f_{10}^-f_{11}^++f_1^-f_5^-f_9^-f_{10}^-f_4^+f_8^+f_{11}^++f_1^-f_5^-f_7^-f_9^-f_{10}^-f_4^+f_{11}^+-f_3^-f_4^-f_5^-f_{11}^-f_8^+f_9^+f_{10}^+}{(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_5-E_9-E_{10}+E_7+E_8+E_{11})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+f_{11}^++f_1^-f_3^-f_7^-f_9^-f_{10}^-f_{12}^-f_{11}^+-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_9^+f_{10}^++f_1^-f_3^-f_9^-f_{10}^-f_{12}^-f_8^+f_{11}^+-f_3^-f_4^-f_{11}^-f_{12}^-f_8^+f_9^+f_{10}^++f_1^-f_9^-f_{10}^-f_{12}^-f_4^+f_8^+f_{11}^+}{(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_3^-f_4^-f_5^-f_7^-f_{10}^-f_9^+f_{12}^+-f_1^-f_3^-f_7^-f_9^-f_{10}^-f_{12}^-f_5^+-f_1^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+f_5^++f_1^-f_3^-f_9^-f_{11}^-f_{12}^-f_5^+f_8^++f_1^-f_3^-f_7^-f_9^-f_{11}^-f_{12}^-f_5^++f_1^-f_7^-f_9^-f_{11}^-f_{12}^-f_4^+f_5^+-f_3^-f_4^-f_5^-f_7^-f_{11}^-f_9^+f_{12}^++f_1^-f_9^-f_{11}^-f_{12}^-f_4^+f_5^+f_8^+-f_3^-f_4^-f_5^-f_{11}^-f_8^+f_9^+f_{12}^++f_3^-f_4^-f_5^-f_{10}^-f_8^+f_9^+f_{12}^+-f_1^-f_3^-f_9^-f_{10}^-f_{12}^-f_5^+f_8^+-f_1^-f_9^-f_{10}^-f_{12}^-f_4^+f_5^+f_8^+}{(-E_9-E_{12}+E_2+E_5)(-E_3-E_4-E_5+E_1+E_9+E_{12})(-E_9-E_{12}+E_5+E_6)(-E_9-E_{12}+E_7+E_8)(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_{11}^-f_{12}^-f_7^+f_8^+f_{10}^+-f_1^-f_7^-f_8^-f_{10}^-f_4^+f_{11}^+f_{12}^+-f_1^-f_3^-f_7^-f_8^-f_{10}^-f_{11}^+f_{12}^+}{(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_5+E_{10})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})(-E_3-E_4-E_{11}-E_{12}+E_1+E_7+E_8+E_{10})(-E_7-E_8-E_{10}+E_6+E_{11}+E_{12})}
\end{array}\right)$$

$$+\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,8\}\{7,8|V|1,10\}\{9,10|V|9,6\}\{11,12|V|11,2\}f_9^- f_{11}^- \begin{pmatrix}
\frac{+f_1^- f_2^- f_6^- f_4^+ f_8^+ + f_1^- f_2^- f_6^- f_7^- f_4^+ + f_1^- f_2^- f_3^- f_6^- f_8^+ + f_1^- f_2^- f_3^- f_6^- f_7^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_1-E_6+E_7+E_8)(-E_6+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- + f_1^- f_3^- f_4^- f_6^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_1-E_6+E_7+E_8)(-E_6+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- + f_1^- f_2^- f_7^- f_8^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_1+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_1+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_{10}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_{10}^- f_8^+ + f_1^- f_2^- f_3^- f_7^- f_{10}^- + f_1^- f_2^- f_7^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_{10}+E_6)(-E_1-E_{10}+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^- f_8^+ + f_1^- f_3^- f_4^- f_7^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_{10}+E_6)(-E_1-E_{10}+E_7+E_8)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_2^+ f_8^+ + f_3^- f_4^- f_6^- f_7^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_6+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_2^+ f_8^+ + f_3^- f_4^- f_7^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_{10}+E_6)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- + f_2^- f_5^- f_6^- f_7^- f_4^+ + f_2^- f_3^- f_5^- f_6^- f_8^+ + f_2^- f_5^- f_6^- f_4^+ f_8^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_6+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^+ + f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_7+E_8)(-E_6+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_8^- + f_2^- f_5^- f_7^- f_8^- f_4^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_5^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_{10}^- + f_2^- f_3^- f_5^- f_{10}^- f_8^+ + f_2^- f_5^- f_7^- f_{10}^- f_4^+ + f_2^- f_5^- f_{10}^- f_4^+ f_8^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_{10}+E_6)(-E_5-E_{10}+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^- f_8^+ + f_3^- f_4^- f_5^- f_7^- f_{10}^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_{10}+E_6)(-E_5-E_{10}+E_7+E_8)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_6^- f_{12}^- f_4^+ f_8^+ + f_1^- f_3^- f_6^- f_{12}^- f_8^+ + f_1^- f_6^- f_7^- f_{12}^- f_4^+ + f_1^- f_3^- f_6^- f_7^- f_{12}^-}{(-E_1+E_5)(-E_1-E_6+E_7+E_8)(-E_6+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)} \\
\frac{+f_1^- f_7^- f_8^- f_{12}^- f_4^+ + f_1^- f_3^- f_7^- f_8^- f_{12}^-}{(-E_1+E_5)(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_1+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)} \\
\frac{+f_5^- f_6^- f_{12}^- f_4^+ f_8^+ + f_3^- f_5^- f_6^- f_7^- f_{12}^- + f_3^- f_5^- f_6^- f_{12}^- f_8^+ + f_5^- f_6^- f_7^- f_{12}^- f_4^+}{(-E_5+E_1)(-E_5-E_6+E_7+E_8)(-E_6+E_{10})(-E_{12}+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_3^- f_5^- f_7^- f_8^- f_{12}^- + f_5^- f_7^- f_8^- f_{12}^- f_4^+}{(-E_5+E_1)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_5+E_{10})(-E_{12}+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_1^- f_{10}^- f_{12}^- f_4^+ f_8^+ + f_1^- f_3^- f_{10}^- f_{12}^- f_8^+ + f_1^- f_7^- f_{10}^- f_{12}^- f_4^+ + f_1^- f_3^- f_7^- f_{10}^- f_{12}^-}{(-E_1+E_5)(-E_{10}+E_6)(-E_1-E_{10}+E_7+E_8)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)} \\
\frac{+f_5^- f_{10}^- f_{12}^- f_4^+ f_8^+ + f_5^- f_7^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_5^- f_{10}^- f_{12}^- f_8^+ + f_3^- f_5^- f_7^- f_{10}^- f_{12}^-}{(-E_5+E_1)(-E_{10}+E_6)(-E_5-E_{10}+E_7+E_8)(-E_{12}+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_2^- f_7^- f_8^- f_4^+ f_6^+ + f_2^- f_3^- f_7^- f_8^- f_6^+}{(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_7-E_8+E_5+E_6)(-E_6+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^-}{(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_7-E_8+E_5+E_6)(-E_6+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_{12}^- f_6^+ + f_7^- f_8^- f_{12}^- f_4^+ f_6^+}{(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_5+E_6)(-E_6+E_{10})(-E_{12}+E_2)(-E_7-E_8-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^+ + f_2^- f_7^- f_8^- f_4^+ f_{10}^+}{(-E_{10}+E_6)(-E_7-E_8+E_1+E_{10})(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_7-E_8+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^-}{(-E_{10}+E_6)(-E_7-E_8+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_7-E_8+E_5+E_{10})(-E_3-E_4-E_{10}+E_7+E_8+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_{12}^- f_{10}^+ + f_7^- f_8^- f_{12}^- f_4^+ f_{10}^+}{(-E_{10}+E_6)(-E_7-E_8+E_1+E_{10})(-E_7-E_8+E_5+E_{10})(-E_{12}+E_2)(-E_7-E_8-E_{12}+E_3+E_4+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_8^+ f_{12}^+ + f_3^- f_4^- f_6^- f_7^- f_{12}^+}{(-E_6+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_8^+ f_{12}^+ + f_3^- f_4^- f_7^- f_{10}^- f_{12}^+}{(-E_{10}+E_6)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_{10}+E_7+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{12}^-}{(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_5+E_{12})(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_7-E_8-E_{12}+E_3+E_4+E_{10})}
\end{pmatrix}$$

$$
+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,8\}\{7,8|V|9,2\}\{9,10|V|1,6\}\{11,12|V|11,10\}f_{11}^-
\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_8^+ +f_1^- f_2^- f_5^- f_6^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- +f_1^- f_2^- f_5^- f_6^- f_7^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- +f_2^- f_3^- f_4^- f_5^- f_6^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_1^+ f_8^+ +f_3^- f_4^- f_5^- f_6^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_8)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ f_5^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- +f_1^- f_2^- f_6^- f_7^- f_8^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2-E_6+E_7+E_8+E_{10})(-E_1-E_2-E_6+E_7+E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_4^+ f_5^+ f_8^+ +f_1^- f_2^- f_3^- f_9^- f_5^+ f_8^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_5^+ +f_1^- f_2^- f_7^- f_9^- f_4^+ f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_5^+ +f_2^- f_3^- f_4^- f_9^- f_5^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- +f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+ +f_1^- f_2^- f_3^- f_6^- f_9^- f_8^+ +f_1^- f_2^- f_6^- f_9^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_9^- +f_2^- f_3^- f_4^- f_6^- f_9^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_5^+ f_8^+ +f_3^- f_4^- f_7^- f_9^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_1^+ +f_3^- f_4^- f_6^- f_9^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_7-E_8-E_{10}+E_1+E_2+E_6)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ +f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_9^- f_{10}^- f_8^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- f_8^+ +f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{12})(-E_7-E_8-E_{12}+E_1+E_2+E_6)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_2^- f_9^- f_{12}^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_9^- f_{12}^- f_8^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_{12}^- +f_1^- f_2^- f_7^- f_9^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{12})(-E_9-E_{12}+E_1+E_6)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{12})(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{12}^- f_8^+ +f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_2-E_9-E_{12}+E_3+E_4+E_6)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ +f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{12})(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{12}^- f_1^+ +f_3^- f_4^- f_9^- f_{12}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_9-E_{12}+E_1+E_6)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_8^+ f_{10}^+ +f_1^- f_2^- f_3^- f_6^- f_7^- f_{10}^+ +f_1^- f_2^- f_6^- f_7^- f_4^+ f_{10}^+ +f_1^- f_2^- f_6^- f_4^+ f_8^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_6+E_7+E_8+E_{10})(-E_1-E_6+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_1^+ f_{10}^+ +f_3^- f_4^- f_6^- f_1^+ f_8^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_1-E_6+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_8^+ f_{10}^+ +f_2^- f_3^- f_4^- f_6^- f_7^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_4^+ f_8^+ f_{12}^+ +f_1^- f_2^- f_3^- f_6^- f_8^+ f_{12}^+ +f_1^- f_2^- f_3^- f_6^- f_7^- f_{12}^+ +f_1^- f_2^- f_6^- f_7^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_1-E_2-E_6+E_7+E_8+E_{12})(-E_1-E_6+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_1^+ f_{12}^+ +f_3^- f_4^- f_6^- f_1^+ f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_1-E_6+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_8^+ f_{12}^+ +f_2^- f_3^- f_4^- f_6^- f_7^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_3-E_4-E_6+E_2+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^+ f_9^+ +f_3^- f_4^- f_5^- f_6^- f_7^- f_9^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_4^+ f_8^+ f_9^+ +f_1^- f_3^- f_5^- f_6^- f_7^- f_9^+ +f_1^- f_5^- f_6^- f_7^- f_4^+ f_9^+ +f_1^- f_3^- f_5^- f_6^- f_8^+ f_9^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{10}^- f_8^+ +f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^- +f_2^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ +f_2^- f_5^- f_6^- f_{10}^- f_4^+ f_8^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_{10}^- f_8^+ f_9^+ +f_3^- f_5^- f_6^- f_7^- f_{10}^- f_9^+ +f_5^- f_6^- f_{10}^- f_4^+ f_8^+ f_9^+ +f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_9^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_6)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{12}^- f_8^+ +f_2^- f_5^- f_6^- f_{12}^- f_4^+ f_8^+ +f_2^- f_5^- f_6^- f_7^- f_{12}^- f_4^+ +f_2^- f_3^- f_5^- f_6^- f_7^- f_{12}^-}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{12}^- f_9^+ +f_5^- f_6^- f_{12}^- f_4^+ f_8^+ f_9^+ +f_3^- f_5^- f_6^- f_{12}^- f_8^+ f_9^+ +f_5^- f_6^- f_7^- f_{12}^- f_4^+ f_9^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_5-E_{12}+E_3+E_4)(-E_9-E_{12}+E_1+E_6)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_5^+ f_9^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_9^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_9^+ +f_1^- f_6^- f_7^- f_8^- f_4^+ f_9^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_1^- f_7^- f_8^- f_4^+ f_5^+ f_9^+ +f_1^- f_3^- f_7^- f_8^- f_5^+ f_9^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_7-E_8+E_5+E_9+E_{10})(-E_1-E_7-E_8+E_5+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- +f_2^- f_5^- f_7^- f_8^- f_{10}^- f_4^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_9^+ +f_3^- f_5^- f_7^- f_8^- f_{10}^- f_9^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_5-E_9-E_{10}+E_1+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ +f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{10}+E_1+E_2+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_{10}+E_{12})} \\
\frac{+f_7^- f_8^- f_{10}^- f_4^+ f_6^+ f_9^+ +f_3^- f_7^- f_8^- f_{10}^- f_6^+ f_9^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_9-E_{10}+E_1+E_6)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{12}^- f_4^+ +f_2^- f_3^- f_5^- f_7^- f_8^- f_{12}^-}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_{10})}
\end{array}\right)
$$

$$
+\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,8\}\{7,8|V|1,10\}\{9,10|V|11,2\}\{11,12|V|9,6\}
\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- - f_1^- f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- - f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+ + f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_5-E_6-E_9+E_1+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ + f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- - f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- f_8^+ - f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+ f_8^+ + f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- f_2^+ - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+ f_8^+ - f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_8)(-E_2-E_5-E_6+E_3+E_4+E_{10})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_5^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_5^+ - f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_1-E_2-E_{11}+E_7+E_8+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^- - f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_9^- - f_1^- f_2^- f_6^- f_7^- f_8^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_1-E_2-E_{11}+E_7+E_8+E_9)(-E_1-E_2-E_6+E_7+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- - f_1^- f_3^- f_4^- f_6^- f_7^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_5^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_9^- f_2^+ - f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_5^+ f_8^+ + f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_5^+ f_8^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_5^+ + f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ - f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_5^+ - f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_5^+ f_8^+ - f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_5^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ + f_1^- f_2^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ - f_1^- f_2^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_8^+ - f_1^- f_2^- f_6^- f_{10}^- f_{11}^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- + f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^- + f_1^- f_2^- f_6^- f_7^- f_9^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_5^+ - f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_5^+ + f_1^- f_3^- f_4^- f_9^- f_{10}^- f_5^+ f_8^+ - f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_5^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_8^+ + f_1^- f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- - f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+ - f_1^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4-E_6+E_1+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_2^+ f_5^+ - f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_5^+ f_8^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_5^+ + f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_5^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_2^+ f_8^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^- f_2^+ f_8^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- f_2^+ + f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{12}^- - f_1^- f_2^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_1+E_{10})(-E_1-E_2-E_{11}+E_7+E_8+E_9)(-E_1-E_2+E_5+E_{12})(-E_7-E_8-E_{12}+E_1+E_2+E_6)} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- - f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_1+E_{10})(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})(-E_7-E_8-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_2^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_8^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- - f_1^- f_2^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+ - f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_5+E_{12})(-E_{10}-E_{12}+E_2+E_6)} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+ + f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_7+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})(-E_1-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4+E_5+E_{12})(-E_7-E_8-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ + f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_2^+ f_8^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_2^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4+E_5+E_{12})(-E_{10}-E_{12}+E_2+E_6)} \\
\frac{+f_1^- f_2^- f_{11}^- f_4^+ f_5^+ f_8^+ f_9^+ + f_1^- f_2^- f_3^- f_{11}^- f_5^+ f_8^+ f_9^+ + f_1^- f_2^- f_3^- f_7^- f_{11}^- f_5^+ f_9^+ + f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_5^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_{11}+E_5+E_6+E_9)(-E_1-E_2-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_9^+ + f_1^- f_2^- f_6^- f_7^- f_{11}^- f_4^+ f_9^+ + f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_8^+ f_9^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_{11}+E_5+E_6+E_9)(-E_1-E_2-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_2^+ f_5^+ f_8^+ f_9^+ + f_3^- f_4^- f_7^- f_{11}^- f_2^+ f_5^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_2^+ f_9^+ + f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{11}^- f_5^+ f_8^+ f_9^+ + f_1^- f_3^- f_4^- f_7^- f_{11}^- f_5^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_9^+ + f_1^- f_3^- f_4^- f_6^- f_7^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_8^+ f_9^+ + f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_8^+ f_9^+ + f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_9^+ + f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_2^+ f_9^+ + f_3^- f_4^- f_{11}^- f_{12}^- f_2^+ f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_9^+ + f_1^- f_3^- f_4^- f_{11}^- f_{12}^- f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_1^- f_2^- f_6^- f_9^- f_4^+ f_8^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_9^- f_8^+ f_{12}^+ - f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_8^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^+ - f_1^- f_2^- f_6^- f_7^- f_{11}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_{12}^+ + f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_1-E_2-E_6+E_7+E_8+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_2^+ f_8^+ f_{12}^+ - f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_8^+ f_{12}^+ + f_3^- f_4^- f_6^- f_7^- f_9^- f_2^+ f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_{11}^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_8^+ f_{12}^+ - f_1^- f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_{12}^+ + f_1^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^+ - f_1^- f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_3-E_4-E_6+E_1+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- f_{10}^+ + f_3^- f_4^- f_5^- f_6^- f_{11}^- f_8^+ f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- f_{10}^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ f_{10}^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ f_{10}^+ + f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+ f_{10}^+ + f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+ f_{10}^+ + f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{10}^+ - f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ f_{10}^+ - f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^+ - f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ f_{10}^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_2-E_5-E_6+E_3+E_4+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_7^- f_9^- f_4^+ f_{11}^+ + f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^+ + f_1^- f_5^- f_6^- f_9^- f_4^+ f_8^+ f_{11}^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_8^+ f_{11}^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_5-E_6-E_9+E_1+E_2+E_{11})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_9^- f_4^+ f_{10}^+ f_{11}^+ + f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^+ f_{11}^+ + f_3^- f_5^- f_6^- f_9^- f_8^+ f_{10}^+ f_{11}^+ + f_5^- f_6^- f_9^- f_4^+ f_8^+ f_{10}^+ f_{11}^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_9-E_{10}+E_2+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ + f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+ - f_1^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+ - f_1^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- - f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+ + f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{12}^- + f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_9^- f_{12}^- f_{10}^+ + f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+ f_{10}^+ + f_5^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ f_{10}^+ - f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+ f_{10}^+ - f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ - f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+ f_{10}^+ + f_3^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ f_{10}^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{10}-E_{12}+E_2+E_6)(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_5^+ f_{10}^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+ f_{10}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_9^- f_{10}^+ - f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{10}^+ - f_2^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ - f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+ + f_2^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+ f_{10}^+ - f_2^- f_3^- f_7^- f_8^- f_9^- f_5^+ f_{10}^+ + f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_5^+ f_{10}^+ - f_2^- f_7^- f_8^- f_9^- f_4^+ f_5^+ f_{10}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_7-E_8+E_5+E_{10}+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{11}^+ + f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_7-E_8-E_9+E_1+E_2+E_{11})(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_9^- f_5^+ f_{11}^+ + f_1^- f_7^- f_8^- f_9^- f_4^+ f_5^+ f_{11}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_7-E_8-E_9+E_1+E_2+E_{11})(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_7-E_8-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_6^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+ f_{11}^+ + f_3^- f_6^- f_7^- f_8^- f_9^- f_{10}^+ f_{11}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_9-E_{10}+E_2+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_9^- f_5^+ f_{10}^+ f_{11}^+ + f_7^- f_8^- f_9^- f_4^+ f_5^+ f_{10}^+ f_{11}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_9-E_{10}+E_2+E_{11})(-E_7-E_8-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- + f_1^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^- - f_1^- f_5^- f_7^- f_8^- f_9^- f_{12}^- f_4^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_5-E_{11}-E_{12}+E_7+E_8+E_9)}
\end{array}\right.
$$

$$-\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,8\}\{7,8|V|1,10\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_9^- f_{11}^- \begin{pmatrix} \frac{+f_1^- f_2^- f_3^- f_6^+ f_8^+ +f_1^- f_2^- f_4^+ f_6^+ f_8^+ +f_1^- f_2^- f_5^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_5^- f_8^+ +f_1^- f_2^- f_7^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_5^- f_7^- +f_1^- f_2^- f_5^- f_7^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_2^- f_3^- f_4^- f_6^+ f_8^+ +f_2^- f_3^- f_4^- f_5^- f_8^+ +f_2^- f_3^- f_4^- f_7^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_1^+ f_6^+ f_8^+ +f_3^- f_4^- f_5^- f_1^+ f_8^+ +f_3^- f_4^- f_5^- f_7^- f_1^+ +f_3^- f_4^- f_7^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_2^- f_5^- f_6^- f_7^- f_4^+ +f_2^- f_5^- f_6^- f_4^+ f_8^+ +f_2^- f_3^- f_5^- f_6^- f_8^+ +f_2^- f_3^- f_5^- f_6^- f_7^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_5^- f_6^- f_1^+ f_8^+ +f_3^- f_5^- f_6^- f_7^- f_1^+ +f_5^- f_6^- f_1^+ f_4^+ f_8^+ +f_5^- f_6^- f_7^- f_1^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_5-E_6+E_1+E_{12})} \\ \frac{+f_3^- f_4^- f_5^- f_{10}^- f_8^+ +f_3^- f_4^- f_7^- f_{10}^- f_6^+ +f_3^- f_4^- f_5^- f_7^- f_{10}^- +f_3^- f_4^- f_{10}^- f_6^+ f_8^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_{10}+E_{12})} \\ \frac{+f_3^- f_4^- f_5^- f_{12}^- f_8^+ +f_3^- f_4^- f_7^- f_{12}^- f_6^+ +f_3^- f_4^- f_{12}^- f_6^+ f_8^+ +f_3^- f_4^- f_5^- f_7^- f_{12}^-}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_{12}+E_{10})} \\ \frac{+f_5^- f_6^- f_{10}^- f_4^+ f_8^+ +f_3^- f_5^- f_6^- f_7^- f_{10}^- +f_5^- f_6^- f_7^- f_{10}^- f_4^+ +f_3^- f_5^- f_6^- f_{10}^- f_8^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_{10}+E_2)(-E_5-E_6+E_1+E_{10})(-E_{10}+E_{12})} \\ \frac{+f_3^- f_5^- f_6^- f_7^- f_{12}^- +f_5^- f_6^- f_7^- f_{12}^- f_4^+ +f_3^- f_5^- f_6^- f_{12}^- f_8^+ +f_5^- f_6^- f_{12}^- f_4^+ f_8^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_{12}+E_2)(-E_5-E_6+E_1+E_{12})(-E_{12}+E_{10})} \\ \frac{+f_2^- f_5^- f_7^- f_8^- f_4^+ +f_2^- f_3^- f_5^- f_7^- f_8^- +f_2^- f_7^- f_8^- f_4^+ f_6^+ +f_2^- f_3^- f_7^- f_8^- f_6^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_7^- f_8^- f_1^+ f_4^+ f_6^+ +f_3^- f_7^- f_8^- f_1^+ f_6^+ +f_5^- f_7^- f_8^- f_1^+ f_4^+ +f_3^- f_5^- f_7^- f_8^- f_1^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_7-E_8+E_1+E_{12})} \\ \frac{+f_3^- f_5^- f_7^- f_8^- f_{10}^- +f_5^- f_7^- f_8^- f_{10}^- f_4^+ +f_3^- f_7^- f_8^- f_{10}^- f_6^+ +f_7^- f_8^- f_{10}^- f_4^+ f_6^+}{(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_{10}+E_2)(-E_7-E_8+E_1+E_{10})(-E_{10}+E_{12})} \\ \frac{+f_3^- f_7^- f_8^- f_{12}^- f_6^+ +f_5^- f_7^- f_8^- f_{12}^- f_4^+ +f_7^- f_8^- f_{12}^- f_4^+ f_6^+ +f_3^- f_5^- f_7^- f_8^- f_{12}^-}{(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_{12}+E_2)(-E_7-E_8+E_1+E_{12})(-E_{12}+E_{10})} \\ \frac{+f_1^- f_3^- f_7^- f_{10}^- f_6^+ +f_1^- f_3^- f_5^- f_7^- f_{10}^- +f_1^- f_5^- f_7^- f_{10}^- f_4^+ +f_1^- f_{10}^- f_4^+ f_6^+ f_8^+ +f_1^- f_3^- f_5^- f_{10}^- f_8^+ +f_1^- f_3^- f_{10}^- f_6^+ f_8^+ +f_1^- f_7^- f_{10}^- f_4^+ f_6^+ +f_1^- f_5^- f_{10}^- f_4^+ f_8^+}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\ \frac{+f_1^- f_3^- f_5^- f_{12}^- f_8^+ +f_1^- f_5^- f_{12}^- f_4^+ f_8^+ +f_1^- f_{12}^- f_4^+ f_6^+ f_8^+ +f_1^- f_7^- f_{12}^- f_4^+ f_6^+ +f_1^- f_3^- f_5^- f_7^- f_{12}^- +f_1^- f_3^- f_{12}^- f_6^+ f_8^+ +f_1^- f_3^- f_7^- f_{12}^- f_6^+ +f_1^- f_5^- f_7^- f_{12}^- f_4^+}{(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_6)(-E_1-E_{12}+E_7+E_8)(-E_{12}+E_{10})} \end{pmatrix}$$

$$-\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,8\}\{7,8|V|1,10\}\{9,10|V|11,2\}\{11,12|V|9,12\}f_{12}^- \begin{pmatrix} \frac{+f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_{11}^- f_6^+ f_8^+ +f_1^- f_2^- f_{11}^- f_4^+ f_6^+ f_8^+ +f_1^- f_2^- f_3^- f_5^- f_{11}^- f_8^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- -f_1^- f_2^- f_7^- f_9^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_7^- f_{11}^- f_6^+ -f_1^- f_2^- f_3^- f_7^- f_9^- f_6^+ -f_1^- f_2^- f_5^- f_7^- f_9^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_8^+ -f_1^- f_2^- f_5^- f_9^- f_4^+ f_8^+ -f_1^- f_2^- f_9^- f_4^+ f_6^+ f_8^+ -f_1^- f_2^- f_3^- f_9^- f_6^+ f_8^+ +f_1^- f_2^- f_5^- f_7^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- +f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_8)(-E_2+E_{10})(-E_{11}+E_9)} \\ \frac{+f_2^- f_3^- f_4^- f_{11}^- f_6^+ f_8^+ +f_2^- f_3^- f_4^- f_5^- f_{11}^- f_8^+ +f_2^- f_3^- f_4^- f_7^- f_{11}^- f_6^+ -f_2^- f_3^- f_4^- f_5^- f_9^- f_8^+ -f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- -f_2^- f_3^- f_4^- f_9^- f_6^+ f_8^+ -f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_2+E_{10})(-E_{11}+E_9)} \\ \frac{+f_3^- f_4^- f_{11}^- f_1^+ f_6^+ f_8^+ +f_3^- f_4^- f_5^- f_{11}^- f_1^+ f_8^+ +f_3^- f_4^- f_7^- f_{11}^- f_1^+ f_6^+ +f_3^- f_4^- f_5^- f_7^- f_{11}^- f_1^+ -f_3^- f_4^- f_5^- f_7^- f_9^- f_1^+ -f_3^- f_4^- f_7^- f_9^- f_1^+ f_6^+ -f_3^- f_4^- f_5^- f_9^- f_1^+ f_8^+ -f_3^- f_4^- f_9^- f_1^+ f_6^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_1+E_{10})(-E_{11}+E_9)} \\ \frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- +f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ +f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ +f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ -f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+ -f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ -f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+ -f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_2+E_{10})(-E_9+E_{11})} \\ \frac{+f_3^- f_5^- f_6^- f_9^- f_1^+ f_8^+ -f_3^- f_5^- f_6^- f_7^- f_{11}^- f_1^+ +f_3^- f_5^- f_6^- f_7^- f_9^- f_1^+ +f_5^- f_6^- f_7^- f_9^- f_1^+ f_4^+ -f_5^- f_6^- f_7^- f_{11}^- f_1^+ f_4^+ +f_5^- f_6^- f_9^- f_1^+ f_4^+ f_8^+ -f_5^- f_6^- f_{11}^- f_1^+ f_4^+ f_8^+ -f_3^- f_5^- f_6^- f_{11}^- f_1^+ f_8^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_9+E_{11})} \\ \frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ +f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+ -f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+ -f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ +f_3^- f_4^- f_{10}^- f_{11}^- f_6^+ f_8^+ +f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_8^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_{11}+E_9)} \\ \frac{+f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- -f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- -f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_8^+ +f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ -f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ +f_5^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ +f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ -f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_{10}+E_2)(-E_5-E_6+E_1+E_{10})(-E_9+E_{11})} \\ \frac{+f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ -f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+ -f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- +f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ -f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+ -f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ +f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- +f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_2+E_{10})(-E_{11}+E_9)} \\ \frac{+f_5^- f_7^- f_8^- f_{11}^- f_1^+ f_4^+ +f_7^- f_8^- f_{11}^- f_1^+ f_4^+ f_6^+ -f_3^- f_5^- f_7^- f_8^- f_9^- f_1^+ -f_7^- f_8^- f_9^- f_1^+ f_4^+ f_6^+ -f_5^- f_7^- f_8^- f_9^- f_1^+ f_4^+ -f_3^- f_7^- f_8^- f_9^- f_1^+ f_6^+ +f_3^- f_7^- f_8^- f_{11}^- f_1^+ f_6^+ +f_3^- f_5^- f_7^- f_8^- f_{11}^- f_1^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_{11}+E_9)} \\ \frac{+f_3^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ -f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- -f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ -f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ +f_7^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+ -f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ f_6^+ +f_5^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ +f_3^- f_5^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_{10}+E_2)(-E_7-E_8+E_1+E_{10})(-E_9+E_{11})} \\ \frac{+f_1^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- -f_1^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ +f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+ -f_1^- f_3^- f_9^- f_{10}^- f_6^+ f_8^+ +f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_8^+ +f_1^- f_7^- f_{10}^- f_{11}^- f_4^+ f_6^+ -f_1^- f_9^- f_{10}^- f_4^+ f_6^+ f_8^+ -f_1^- f_3^- f_5^- f_9^- f_{10}^- f_8^+ -f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_8^+ -f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ +f_1^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ +f_1^- f_3^- f_{10}^- f_{11}^- f_6^+ f_8^+ +f_1^- f_{10}^- f_{11}^- f_4^+ f_6^+ f_8^+ +f_1^- f_5^- f_{10}^- f_{11}^- f_4^+ f_8^+ -f_1^- f_3^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_{11}+E_9)} \end{pmatrix}$$

$$-\frac{1}{16}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,8\}\{7,8|V|9,12\}\{9,10|V|1,10\}\{11,12|V|11,2\}f_{10}^- f_{11}^- \begin{pmatrix} \frac{+f_1^- f_2^- f_3^- f_5^- f_7^- +f_1^- f_2^- f_5^- f_7^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_8^+ +f_1^- f_2^- f_5^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_7^- f_6^+ +f_1^- f_2^- f_7^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_6^+ f_8^+ +f_1^- f_2^- f_4^+ f_6^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_8)(-E_1+E_9)(-E_2+E_{12})} \\ \frac{+f_1^- f_3^- f_4^- f_6^+ f_8^+ +f_1^- f_3^- f_4^- f_7^- f_6^+ +f_1^- f_3^- f_4^- f_5^- f_8^+ +f_1^- f_3^- f_4^- f_5^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_1+E_9)(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_3^- f_4^- f_5^- f_2^+ f_8^+ +f_3^- f_4^- f_7^- f_2^+ f_6^+ +f_3^- f_4^- f_2^+ f_6^+ f_8^+ +f_3^- f_4^- f_5^- f_7^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_2+E_9)(-E_2+E_{12})} \\ \frac{+f_1^- f_3^- f_5^- f_6^- f_7^- +f_1^- f_5^- f_6^- f_4^+ f_8^+ +f_1^- f_3^- f_5^- f_6^- f_8^+ +f_1^- f_5^- f_6^- f_7^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_1+E_9)(-E_5-E_6+E_1+E_{12})} \\ \frac{+f_5^- f_6^- f_2^+ f_4^+ f_8^+ +f_5^- f_6^- f_7^- f_2^+ f_4^+ +f_3^- f_5^- f_6^- f_2^+ f_8^+ +f_3^- f_5^- f_6^- f_7^- f_2^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_9^- f_6^+ +f_3^- f_4^- f_5^- f_7^- f_9^- +f_3^- f_4^- f_9^- f_6^+ f_8^+ +f_3^- f_4^- f_5^- f_9^- f_8^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_9+E_1)(-E_3-E_4+E_2+E_9)(-E_3-E_4+E_9+E_{12})} \\ \frac{+f_3^- f_4^- f_6^+ f_8^+ f_{12}^+ +f_3^- f_4^- f_5^- f_8^+ f_{12}^+ +f_3^- f_4^- f_5^- f_7^- f_{12}^+ +f_3^- f_4^- f_7^- f_6^+ f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_9+E_{12})} \\ \frac{+f_3^- f_5^- f_6^- f_7^- f_9^- +f_5^- f_6^- f_9^- f_4^+ f_8^+ +f_3^- f_5^- f_6^- f_9^- f_8^+ +f_5^- f_6^- f_7^- f_9^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_9+E_1)(-E_5-E_6+E_2+E_9)(-E_5-E_6+E_9+E_{12})} \\ \frac{+f_5^- f_6^- f_7^- f_4^+ f_{12}^+ +f_5^- f_6^- f_4^+ f_8^+ f_{12}^+ +f_3^- f_5^- f_6^- f_8^+ f_{12}^+ +f_3^- f_5^- f_6^- f_7^- f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_{12}+E_2)(-E_5-E_6+E_1+E_{12})(-E_5-E_6+E_9+E_{12})} \\ \frac{+f_1^- f_3^- f_7^- f_8^- f_6^+ +f_1^- f_3^- f_5^- f_7^- f_8^- +f_1^- f_5^- f_7^- f_8^- f_4^+ +f_1^- f_7^- f_8^- f_4^+ f_6^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_1+E_9)(-E_7-E_8+E_1+E_{12})} \\ \frac{+f_7^- f_8^- f_2^+ f_4^+ f_6^+ +f_5^- f_7^- f_8^- f_2^+ f_4^+ +f_3^- f_7^- f_8^- f_2^+ f_6^+ +f_3^- f_5^- f_7^- f_8^- f_2^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_2+E_{12})} \\ \frac{+f_7^- f_8^- f_9^- f_4^+ f_6^+ +f_3^- f_7^- f_8^- f_9^- f_6^+ +f_3^- f_5^- f_7^- f_8^- f_9^- +f_5^- f_7^- f_8^- f_9^- f_4^+}{(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_9+E_1)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_9+E_{12})} \\ \frac{+f_3^- f_5^- f_7^- f_8^- f_{12}^+ +f_5^- f_7^- f_8^- f_4^+ f_{12}^+ +f_3^- f_7^- f_8^- f_6^+ f_{12}^+ +f_7^- f_8^- f_4^+ f_6^+ f_{12}^+}{(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_{12}+E_2)(-E_7-E_8+E_1+E_{12})(-E_7-E_8+E_9+E_{12})} \\ \frac{+f_2^- f_5^- f_7^- f_9^- f_4^+ +f_2^- f_3^- f_7^- f_9^- f_6^+ +f_2^- f_3^- f_5^- f_9^- f_8^+ +f_2^- f_7^- f_9^- f_4^+ f_6^+ +f_2^- f_3^- f_5^- f_7^- f_9^- +f_2^- f_3^- f_9^- f_6^+ f_8^+ +f_2^- f_9^- f_4^+ f_6^+ f_8^+ +f_2^- f_5^- f_9^- f_4^+ f_8^+}{(-E_9+E_1)(-E_2-E_9+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_2+E_{12})} \\ \frac{+f_1^- f_3^- f_{12}^- f_6^+ f_8^+ +f_1^- f_3^- f_7^- f_{12}^- f_6^+ +f_1^- f_7^- f_{12}^- f_4^+ f_6^+ +f_1^- f_3^- f_5^- f_{12}^- f_8^+ +f_1^- f_3^- f_5^- f_7^- f_{12}^- +f_1^- f_5^- f_7^- f_{12}^- f_4^+ +f_1^- f_5^- f_{12}^- f_4^+ f_8^+ +f_1^- f_{12}^- f_4^+ f_6^+ f_8^+}{(-E_1+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_6)(-E_1-E_{12}+E_7+E_8)} \\ \frac{+f_3^- f_5^- f_7^- f_9^- f_{12}^- +f_3^- f_9^- f_{12}^- f_6^+ f_8^+ +f_7^- f_9^- f_{12}^- f_4^+ f_6^+ +f_5^- f_9^- f_{12}^- f_4^+ f_8^+ +f_9^- f_{12}^- f_4^+ f_6^+ f_8^+ +f_5^- f_7^- f_9^- f_{12}^- f_4^+ +f_3^- f_5^- f_9^- f_{12}^- f_8^+ +f_3^- f_7^- f_9^- f_{12}^- f_6^+}{(-E_9+E_1)(-E_{12}+E_2)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_6)(-E_9-E_{12}+E_7+E_8)} \end{pmatrix}$$

$$-\frac{1}{16}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,8\}\{7,8|V|9,12\}\{9,10|V|11,2\}\{11,12|V|1,10\}\Bigg($$

$$\frac{+f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ f_8^+ +f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ +f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_8^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_8^+ +f_1^- f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- -f_1^- f_2^- f_3^- f_{11}^- f_6^+ f_8^+ f_9^+ -f_1^- f_2^- f_3^- f_5^- f_{11}^- f_8^+ f_9^+ -f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_8^+ f_9^+ -f_1^- f_2^- f_{11}^- f_4^+ f_6^+ f_8^+ f_9^+ -f_1^- f_2^- f_3^- f_7^- f_{11}^- f_6^+ f_9^+ -f_1^- f_2^- f_5^- f_7^- f_{11}^- f_4^+ f_9^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_9^+ -f_1^- f_2^- f_7^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+ +f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_6^+ f_8^+ +f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_8^+ +f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_6^+ +f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_6^+ f_8^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- +f_1^- f_2^- f_5^- f_7^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_6^+ f_8^+ +f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_8^+ +f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_8^+ +f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- +f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_6^+ -f_1^- f_2^- f_5^- f_{10}^- f_4^+ f_8^+ f_{12}^+ -f_1^- f_2^- f_3^- f_{10}^- f_6^+ f_8^+ f_{12}^+ -f_1^- f_2^- f_3^- f_5^- f_{10}^- f_8^+ f_{12}^+ -f_1^- f_2^- f_{10}^- f_4^+ f_6^+ f_8^+ f_{12}^+ -f_1^- f_2^- f_3^- f_7^- f_{10}^- f_6^+ f_{12}^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{12}^+ -f_1^- f_2^- f_7^- f_{10}^- f_4^+ f_6^+ f_{12}^+ -f_1^- f_2^- f_5^- f_7^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_8)(-E_1-E_2+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})}$$

$$\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ +f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- -f_2^- f_3^- f_4^- f_5^- f_{11}^- f_8^+ f_9^+ -f_2^- f_3^- f_4^- f_{11}^- f_6^+ f_8^+ f_9^+ -f_2^- f_3^- f_4^- f_7^- f_{11}^- f_6^+ f_9^+ -f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_9^+ +f_2^- f_3^- f_4^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- +f_2^- f_3^- f_4^- f_{10}^- f_{11}^- f_6^+ f_8^+ +f_2^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_8^+ +f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4-E_{10}+E_2+E}$$

$$\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ f_6^+ -f_3^- f_4^- f_5^- f_{11}^- f_1^+ f_8^+ f_9^+ -f_3^- f_4^- f_{11}^- f_1^+ f_6^+ f_8^+ f_9^+ -f_3^- f_4^- f_7^- f_{11}^- f_1^+ f_6^+ f_9^+ -f_3^- f_4^- f_5^- f_7^- f_{11}^- f_1^+ f_9^+ +f_3^- f_4^- f_5^- f_9^- f_{10}^- f_1^+ f_8^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_1^+ +f_3^- f_4^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_9+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_1^+ f_8^+ +f_3^- f_4^- f_{10}^- f_{11}^- f_1^+ f_6^+ f_8^+ +f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_1^+ f_6^+ +f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E}$$

$$\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_1^+ f_6^+ f_8^+ +f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_1^+ f_8^+ +f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_1^+ f_6^+ +f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_1^+ -f_3^- f_4^- f_{10}^- f_1^+ f_6^+ f_8^+ f_{12}^+ -f_3^- f_4^- f_5^- f_7^- f_{10}^- f_1^+ f_{12}^+ -f_3^- f_4^- f_5^- f_{10}^- f_1^+ f_8^+ f_{12}^+ -f_3^- f_4^- f_7^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})}$$

$$\frac{+f_2^- f_3^- f_4^- f_{11}^- f_{12}^- f_6^+ f_8^+ +f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_8^+ +f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- -f_2^- f_3^- f_4^- f_{10}^- f_6^+ f_8^+ f_{12}^+ -f_2^- f_3^- f_4^- f_7^- f_{10}^- f_6^+ f_{12}^+ -f_2^- f_3^- f_4^- f_5^- f_{10}^- f_8^+ f_{12}^+ -f_2^- f_3^- f_4^- f_5^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{12})(-E_2-E_{11}-E_{12}+E_3+E_4+E_{10})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ +f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+ f_9^+ +f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ f_9^+ -f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- -f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ -f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ -f_2^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ +f_2^- f_5^- f_6^- f_{11}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_6+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- +f_2^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ +f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_8^+ +f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_6-E_{10}+E_2+E}$$

$$\frac{+f_3^- f_5^- f_6^- f_7^- f_{11}^- f_1^+ f_9^+ -f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_1^+ -f_3^- f_5^- f_6^- f_9^- f_{10}^- f_1^+ f_8^+ -f_5^- f_6^- f_9^- f_{10}^- f_1^+ f_4^+ f_8^+ -f_5^- f_6^- f_7^- f_9^- f_{10}^- f_1^+ f_4^+ +f_3^- f_5^- f_6^- f_{11}^- f_1^+ f_8^+ f_9^+ +f_5^- f_6^- f_{11}^- f_1^+ f_4^+ f_8^+ f_9^+ +f_5^- f_6^- f_7^- f_{11}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_5-E_6+E_9+E_{12})}$$

$$\frac{+f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_1^+ f_8^+ +f_5^- f_6^- f_{10}^- f_{11}^- f_1^+ f_4^+ f_8^+ +f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_1^+ +f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_1^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E}$$

$$\frac{+f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_1^+ f_4^+ +f_5^- f_6^- f_{11}^- f_{12}^- f_1^+ f_4^+ f_8^+ +f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_1^+ f_8^+ -f_3^- f_5^- f_6^- f_{10}^- f_1^+ f_8^+ f_{12}^+ -f_5^- f_6^- f_7^- f_{10}^- f_1^+ f_4^+ f_{12}^+ -f_3^- f_5^- f_6^- f_7^- f_{10}^- f_1^+ f_{12}^+ -f_5^- f_6^- f_{10}^- f_1^+ f_4^+ f_8^+ f_{12}^+ +f_3^- f_5^- f_6^- f_7^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- +f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+ +f_2^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ +f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+ -f_2^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_{12}^+ -f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+ -f_2^- f_3^- f_5^- f_6^- f_{10}^- f_8^+ f_{12}^+ -f_2^- f_5^- f_6^- f_{10}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_9+E_{12})(-E_2-E_{11}-E_{12}+E_5+E_6+E_{10})}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ +f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+ +f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+ f_{11}^+ +f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ f_{11}^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+}$$

$$\frac{+f_3^- f_4^- f_5^- f_{10}^- f_8^+ f_{11}^+ f_{12}^+ +f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^+ f_{12}^+ +f_3^- f_4^- f_7^- f_{10}^- f_6^+ f_{11}^+ f_{12}^+ +f_3^- f_4^- f_{10}^- f_6^+ f_8^+ f_{11}^+ f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E}$$

$$\frac{+f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+ +f_5^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ +f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ f_{11}^+ +f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ f_{11}^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_5-E_6+}$$

$$\frac{+f_3^- f_5^- f_6^- f_{10}^- f_8^+ f_{11}^+ f_{12}^+ +f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^+ f_{12}^+ +f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_{11}^+ f_{12}^+ +f_5^- f_6^- f_{10}^- f_4^+ f_8^+ f_{11}^+ f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})(-E_5-E_6-E_{10}+E_2+E}$$

$$\frac{+f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ -f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ -f_2^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+ -f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ -f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{10}^- +f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+ +f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ f_9^+ +f_2^- f_5^- f_7^- f_8^-}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ +f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- +f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ f_6^+ +f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_8-E_{10}+E_2+E}$$

$$\frac{+f_3^- f_5^- f_7^- f_8^- f_{11}^- f_1^+ f_9^+ +f_5^- f_7^- f_8^- f_{11}^- f_1^+ f_4^+ f_9^+ +f_3^- f_7^- f_8^- f_{11}^- f_1^+ f_6^+ f_9^+ -f_5^- f_7^- f_8^- f_9^- f_{10}^- f_1^+ f_4^+ -f_7^- f_8^- f_9^- f_{10}^- f_1^+ f_4^+ f_6^+ -f_3^- f_7^- f_8^- f_9^- f_{10}^- f_1^+ f_6^+ +f_7^- f_8^- f_{11}^- f_1^+ f_4^+ f_6^+ f_9^+ -f_3^- f_5^- f_7^- f_8^-}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8-E_{11}+E_1+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_1^+ f_4^+ +f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_1^+ +f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_1^+ f_6^+ +f_7^- f_8^- f_{10}^- f_{11}^- f_1^+ f_4^+ f_6^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E}$$

$$\frac{+f_3^- f_7^- f_8^- f_{10}^- f_1^+ f_6^+ f_{12}^+ +f_3^- f_5^- f_7^- f_8^- f_{10}^- f_1^+ f_{12}^+ +f_5^- f_7^- f_8^- f_{10}^- f_1^+ f_4^+ f_{12}^+ +f_7^- f_8^- f_{10}^- f_1^+ f_4^+ f_6^+ f_{12}^+ -f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_1^+ f_4^+ -f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_1^+ f_6^+ -f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_1^+ -f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+ f_{12}^+ +f_2^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+ +f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ +f_2^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ -f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- -f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ -f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ -f_2^- f_5^- f_7^- f_8^-}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_5^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ f_{11}^+ +f_3^- f_5^- f_7^- f_8^- f_9^- f_{10}^- f_{11}^+ +f_7^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+ f_{11}^+ +f_3^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_7-E_8-E_{11}+E_1+E_9+E_{10})(-E_7-E_8+}$$

$$\frac{+f_3^- f_7^- f_8^- f_{10}^- f_6^+ f_{11}^+ f_{12}^+ +f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^+ f_{12}^+ +f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_{11}^+ f_{12}^+ +f_7^- f_8^- f_{10}^- f_4^+ f_6^+ f_{11}^+ f_{12}^+}{(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})(-E_7-E_8-E_{10}+E_2+E}$$

$$\frac{+f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ f_{11}^+ +f_1^- f_3^- f_5^- f_9^- f_{10}^- f_8^+ f_{11}^+ +f_1^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ +f_1^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ +f_1^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+ +f_1^- f_3^- f_9^- f_{10}^- f_6^+ f_8^+ f_{11}^+ +f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_8^+ f_{11}^+ +f_1^- f_9^- f_{10}^- f_4^+}{(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_1-E_9-E_{10}+E_5+E_6+E_{11})(-E_1-E_9-E_{10}+E_7+E_8+E_{11})(-E_1-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ -f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+ +f_2^- f_3^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- +f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_4^+ f_8^+ +f_2^- f_3^- f_7^- f_9^- f_{11}^- f_{12}^- f_6^+ -f_2^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ f_8^+ +f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ f_6^+ -f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ -f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ +f_2^- f_3^- f_5^- f_9^- f_{11}^- f_{12}^- f_8^+ -f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ -f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ -f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ -f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- +f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_6^+ f_8^+ +f_2^- f_9^- f_{11}^- f_{12}^-}{(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_1+E_2)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_6)(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ f_{11}^+ +f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ f_8^+ f_{11}^+ +f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ f_{11}^+ +f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+ f_{11}^+ +f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ f_{11}^+ +f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ f_{11}^+ +f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ +f_5^- f_7^- f_9^- f_{10}^-}{(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_6)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_1+E_{10})}$$

$$\frac{+f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_8^+ f_{10}^+ +f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- f_{10}^+ +f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_{10}^+ +f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ +f_2^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_8^+ f_{10}^+ +f_2^- f_3^- f_{11}^- f_{12}^- f_6^+ f_8^+ f_{10}^+ +f_2^- f_5^- f_{11}^- f_{12}^-}{(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_1+E_{10})(-E_2-E_{11}-E_{12}+E_3+E_4+E_{10})(-E_2-E_{11}-E_{12}+E_5+E_6+E_{10})(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_9^- f_{11}^- f_{12}^- f_1^+ f_4^+ f_6^+ f_8^+ +f_7^- f_9^- f_{11}^- f_{12}^- f_1^+ f_4^+ f_6^+ +f_5^- f_9^- f_{11}^- f_{12}^- f_1^+ f_4^+ f_8^+ +f_3^- f_5^- f_9^- f_{11}^- f_{12}^- f_1^+ f_8^+ +f_3^- f_7^- f_9^- f_{11}^- f_{12}^- f_1^+ f_6^+ +f_3^- f_9^- f_{11}^- f_{12}^- f_1^+ f_6^+ f_8^+ +f_3^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- f_1^+ +f_5^- f_7^- f_9^- f_{11}^- f_{12}^- f_1^+ f_4^+ -f_5^- f_9^- f_{10}^- f_{12}^- f_1^+ f_4^+ f_8^+ -f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_1^+ f_6^+ -f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_1^+ f_4^+ -f_9^- f_{10}^- f_{12}^- f_1^+ f_4^+ f_6^+ f_8^+ -f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_1^+ -f_7^- f_9^- f_{10}^- f_{12}^- f_1^+ f_4^+ f_6^+ -f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_1^+ f_8^+ -f_3^- f_9^- f_{10}^- f_{12}^-}{(-E_9-E_{12}+E_1+E_2)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_6)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_1+E_{10})}$$

$$-\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|1,8\}\{7,8|V|7,10\}\{9,10|V|11,12\}\{11,12|V|9,2\}f_7^-\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_9^- f_{11}^- f_6^+ +f_1^- f_2^- f_9^- f_{11}^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- +f_1^- f_2^- f_5^- f_9^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- +f_1^- f_2^- f_9^- f_4^+ f_6^+ f_{12}^+ -f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_6^+ -f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_2^- f_5^- f_9^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_9^- f_6^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_2+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{11}^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^- -f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- -f_2^- f_3^- f_4^- f_{11}^- f_{12}^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_9^- f_{12}^+ +f_2^- f_3^- f_4^- f_9^- f_6^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_2+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{11}^- f_1^+ +f_3^- f_4^- f_9^- f_{11}^- f_1^+ f_6^+ +f_3^- f_4^- f_9^- f_1^+ f_6^+ f_{12}^+ -f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_1^+ -f_3^- f_4^- f_{11}^- f_{12}^- f_1^+ f_6^+ +f_3^- f_4^- f_5^- f_9^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4-E_9+E_1+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^+ +f_2^- f_5^- f_6^- f_9^- f_4^+ f_{12}^+ +f_2^- f_5^- f_6^- f_9^- f_{11}^- f_4^+ +f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- -f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ -f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_2+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_1^+ -f_5^- f_6^- f_9^- f_1^+ f_4^+ f_{12}^+ +f_5^- f_6^- f_{11}^- f_{12}^- f_1^+ f_4^+ -f_3^- f_5^- f_6^- f_9^- f_1^+ f_{12}^+ -f_5^- f_6^- f_9^- f_{11}^- f_1^+ f_4^+ -f_3^- f_5^- f_6^- f_9^- f_{11}^- f_1^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6+E_1+E_{10})(-E_1-E_{11}-E_{12}+E_5+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^+ +f_3^- f_4^- f_8^- f_9^- f_{11}^- f_6^+ +f_3^- f_4^- f_8^- f_9^- f_6^+ f_{12}^+ +f_3^- f_4^- f_5^- f_8^- f_9^- f_{11}^- -f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- -f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_8+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_9^- f_4^+ f_{12}^+ +f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ -f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ +f_3^- f_5^- f_6^- f_8^- f_9^- f_{11}^- -f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- +f_5^- f_6^- f_8^- f_9^- f_{11}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_8+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_6^+ -f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^- -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^+ -f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_{10}+E_8)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- +f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_4^+ -f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_4^+ -f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- +f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_{10}+E_2)(-E_5-E_6+E_1+E_{10})(-E_{10}+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_6^+ f_9^+ +f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_9^+}{(-E_3-E_4+E_5+E_6)(-E_{11}-E_{12}+E_2+E_9)(-E_3-E_4-E_9+E_1+E_{11}+E_{12})(-E_{11}-E_{12}+E_8+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_9^+ +f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_9^+}{(-E_5-E_6+E_3+E_4)(-E_{11}-E_{12}+E_2+E_9)(-E_5-E_6-E_9+E_1+E_{11}+E_{12})(-E_{11}-E_{12}+E_8+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_3^- f_8^- f_9^- f_{11}^- f_6^+ +f_1^- f_3^- f_8^- f_9^- f_6^+ f_{12}^+ +f_1^- f_3^- f_5^- f_8^- f_9^- f_{12}^+ +f_1^- f_8^- f_9^- f_4^+ f_6^+ f_{12}^+ +f_1^- f_8^- f_9^- f_{11}^- f_4^+ f_6^+ +f_1^- f_3^- f_5^- f_8^- f_9^- f_{11}^- +f_1^- f_5^- f_8^- f_9^- f_4^+ f_{12}^+ -f_1^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^- +f_1^- f_5^- f_8^- f_9^- f_{11}^- f_4^+ -f_1^- f_3^- f_8^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+ -f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^- -f_1^- f_5^- f_9^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^+ +f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- -f_1^- f_9^- f_{10}^- f_{11}^- f_4^+ f_6^+ -f_1^- f_3^- f_9^- f_{10}^- f_6^+ f_{12}^+ -f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_9^- f_{10}^- f_4^+ f_6^+ f_{12}^+ +f_1^- f_3^- f_{10}^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_3^- f_9^- f_{10}^- f_{11}^- f_6^+}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_9^+ +f_1^- f_3^- f_5^- f_{11}^- f_{12}^- f_9^+ +f_1^- f_5^- f_{11}^- f_{12}^- f_4^+ f_9^+ +f_1^- f_3^- f_{11}^- f_{12}^- f_6^+ f_9^+}{(-E_{11}-E_{12}+E_2+E_9)(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)(-E_1-E_{11}-E_{12}+E_5+E_6+E_9)(-E_{11}-E_{12}+E_8+E_9)(-E_{11}-E_{12}+E_9+E_{10})}
\end{array}\right)$$

$$-\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|1,8\}\{7,8|V|9,10\}\{9,10|V|11,2\}\{11,12|V|7,12\}f_{12}^-\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- +f_1^- f_2^- f_3^- f_7^- f_9^- f_6^+ +f_1^- f_2^- f_5^- f_7^- f_9^- f_4^+ +f_1^- f_2^- f_7^- f_9^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_7^- f_6^+ f_{10}^+ +f_1^- f_2^- f_5^- f_7^- f_4^+ f_{10}^+ +f_1^- f_2^- f_7^- f_4^+ f_6^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_2-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ +f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_2+E_{11})} \\
\frac{+f_1^- f_2^- f_9^- f_{11}^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_9^- f_{11}^- f_6^+ +f_1^- f_2^- f_3^- f_{11}^- f_6^+ f_{10}^+ +f_1^- f_2^- f_{11}^- f_4^+ f_6^+ f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{10}^+ +f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- +f_1^- f_2^- f_5^- f_9^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_{11}+E_7)(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- +f_2^- f_3^- f_4^- f_5^- f_7^- f_{10}^+ +f_2^- f_3^- f_4^- f_7^- f_6^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_2-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ +f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_2+E_{11})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{10}^+ +f_2^- f_3^- f_4^- f_{11}^- f_6^+ f_{10}^+ +f_2^- f_3^- f_4^- f_9^- f_{11}^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_{11}+E_7)(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_1^+ f_6^+ f_{10}^+ +f_3^- f_4^- f_5^- f_7^- f_1^+ f_{10}^+ +f_3^- f_4^- f_7^- f_9^- f_1^+ f_6^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ +f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_7)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_1^+ f_6^+ +f_3^- f_4^- f_{11}^- f_1^+ f_6^+ f_{10}^+ +f_3^- f_4^- f_5^- f_{11}^- f_1^+ f_{10}^+ +f_3^- f_4^- f_5^- f_9^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_{11}+E_7)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_4^+ f_{10}^+ +f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- +f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ +f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_2-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_4^+ +f_3^- f_5^- f_6^- f_9^- f_{10}^- f_2^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_2+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_{10}^+ +f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{10}^+ +f_2^- f_5^- f_6^- f_9^- f_{11}^- f_4^+ +f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_{11}+E_7)(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_1^+ f_{10}^+ +f_5^- f_6^- f_7^- f_1^+ f_4^+ f_{10}^+ +f_3^- f_5^- f_6^- f_7^- f_9^- f_1^+ +f_5^- f_6^- f_7^- f_9^- f_1^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_9-E_{10}+E_5+E_6+E_7)(-E_1-E_9-E_{10}+E_5+E_6+E_{11})} \\
\frac{+f_5^- f_6^- f_9^- f_{11}^- f_1^+ f_4^+ +f_5^- f_6^- f_{11}^- f_1^+ f_4^+ f_{10}^+ +f_3^- f_5^- f_6^- f_9^- f_{11}^- f_1^+ +f_3^- f_5^- f_6^- f_{11}^- f_1^+ f_{10}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_{11}+E_7)(-E_5-E_6-E_{11}+E_1+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ +f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^+ +f_3^- f_4^- f_7^- f_8^- f_6^+ f_{10}^+ +f_3^- f_4^- f_5^- f_7^- f_8^- f_9^-}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_7-E_8+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ +f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{10}^+ +f_3^- f_4^- f_8^- f_{11}^- f_6^+ f_{10}^+ +f_3^- f_4^- f_8^- f_9^- f_{11}^- f_6^+ +f_3^- f_4^- f_5^- f_8^- f_9^- f_{11}^-}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_{11}+E_7)(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_{10}^+ +f_5^- f_6^- f_7^- f_8^- f_4^+ f_{10}^+ +f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- +f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ +f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_{10}^+ +f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+ +f_3^- f_5^- f_6^- f_8^- f_9^- f_{11}^- +f_5^- f_6^- f_8^- f_9^- f_{11}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_{11}+E_7)(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- +f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_9-E_{10}+E_2+E_7)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_9-E_{10}+E_7+E_8)(-E_7+E_{11})} \\
\frac{+f_5^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ +f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^-}{(-E_5-E_6+E_3+E_4)(-E_9-E_{10}+E_2+E_7)(-E_5-E_6-E_7+E_1+E_9+E_{10})(-E_9-E_{10}+E_7+E_8)(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^- +f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_{11}+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- +f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_{11}+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6-E_{11}+E_1+E_9+E_{10})(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_1^- f_7^- f_8^- f_9^- f_4^+ f_6^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^+ +f_1^- f_3^- f_7^- f_8^- f_6^+ f_{10}^+ +f_1^- f_7^- f_8^- f_4^+ f_6^+ f_{10}^+ +f_1^- f_3^- f_7^- f_8^- f_9^- f_6^+ +f_1^- f_5^- f_7^- f_8^- f_9^- f_4^+ +f_1^- f_5^- f_7^- f_8^- f_4^+ f_{10}^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_9^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_1^- f_3^- f_8^- f_9^- f_{10}^- f_6^+ +f_1^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ +f_1^- f_3^- f_5^- f_8^- f_9^- f_{10}^- +f_1^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_1^- f_8^- f_{11}^- f_4^+ f_6^+ f_{10}^+ +f_1^- f_3^- f_8^- f_{11}^- f_6^+ f_{10}^+ +f_1^- f_3^- f_8^- f_9^- f_{11}^- f_6^+ +f_1^- f_8^- f_9^- f_{11}^- f_4^+ f_6^+ +f_1^- f_5^- f_8^- f_{11}^- f_4^+ f_{10}^+ +f_1^- f_3^- f_5^- f_8^- f_{11}^- f_{10}^+ +f_1^- f_5^- f_8^- f_9^- f_{11}^- f_4^+ +f_1^- f_3^- f_5^- f_8^- f_9^- f_{11}^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_{11}+E_7)(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_9^- f_{10}^- f_7^+ +f_1^- f_9^- f_{10}^- f_4^+ f_6^+ f_7^+ +f_1^- f_3^- f_9^- f_{10}^- f_6^+ f_7^+ +f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_7^+}{(-E_9-E_{10}+E_2+E_7)(-E_1-E_9-E_{10}+E_3+E_4+E_7)(-E_1-E_9-E_{10}+E_5+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_7+E_{11})} \\
\frac{+f_1^- f_9^- f_{10}^- f_4^+ f_6^+ f_{11}^+ +f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_{11}^+ +f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+ +f_1^- f_3^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_{11}+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_1-E_9-E_{10}+E_5+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})}
\end{array}\right)$$

$$
-\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,12\}\{7,8|V|9,10\}\{9,10|V|1,8\}\{11,12|V|11,2\}f_{11}^-
\left(\begin{array}{r}
\frac{+f_1^-f_2^-f_3^-f_8^-f_9^-f_6^+ +f_1^-f_2^-f_5^-f_8^-f_9^-f_4^+ -f_1^-f_2^-f_5^-f_9^-f_{10}^-f_4^+ +f_1^-f_2^-f_3^-f_8^-f_6^+f_{10}^+ -f_1^-f_2^-f_3^-f_5^-f_9^-f_{10}^- +f_1^-f_2^-f_8^-f_4^+f_6^+f_{10}^+ -f_1^-f_2^-f_3^-f_9^-f_{10}^-f_6^+ -f_1^-f_2^-f_9^-f_{10}^-f_4^+f_6^+ +f_1^-f_2^-f_5^-f_8^-f_4^+f_{10}^+ +f_1^-f_2^-f_3^-f_5^-f_8^-f_{10}^+ +f_1^-f_2^-f_8^-f_9^-f_4^+f_6^+ +f_1^-f_2^-f_3^-f_5^-f_8^-f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1+E_7)(-E_1-E_8+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_8^-f_9^- +f_1^-f_3^-f_4^-f_8^-f_6^+f_{10}^+ -f_3^-f_4^-f_5^-f_9^-f_{10}^-f_1^+ +f_1^-f_3^-f_4^-f_5^-f_8^-f_{10}^+ -f_3^-f_4^-f_9^-f_{10}^-f_1^+f_6^+ +f_1^-f_3^-f_4^-f_8^-f_9^-f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1+E_7)(-E_1-E_8+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_8^-f_9^-f_2^+ +f_3^-f_4^-f_5^-f_8^-f_2^+f_{10}^+ +f_3^-f_4^-f_8^-f_2^+f_6^+f_{10}^+ -f_2^-f_3^-f_4^-f_5^-f_9^-f_{10}^- -f_2^-f_3^-f_4^-f_9^-f_{10}^-f_6^+ +f_3^-f_4^-f_8^-f_9^-f_2^+f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_2+E_7)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^-f_5^-f_6^-f_9^-f_{10}^-f_1^+ +f_5^-f_6^-f_9^-f_{10}^-f_1^+f_4^+ -f_1^-f_3^-f_5^-f_6^-f_8^-f_{10}^+ -f_1^-f_5^-f_6^-f_8^-f_4^+f_{10}^+ -f_1^-f_3^-f_5^-f_6^-f_8^-f_9^- -f_1^-f_5^-f_6^-f_8^-f_9^-f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1+E_7)(-E_9-E_{10}+E_1+E_8)(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_5^-f_6^-f_8^-f_2^+f_4^+f_{10}^+ +f_3^-f_5^-f_6^-f_8^-f_2^+f_{10}^+ +f_5^-f_6^-f_8^-f_9^-f_2^+f_4^+ -f_2^-f_3^-f_5^-f_6^-f_9^-f_{10}^- -f_2^-f_5^-f_6^-f_9^-f_{10}^-f_4^+ +f_3^-f_5^-f_6^-f_8^-f_9^-f_2^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^-f_4^-f_7^-f_8^-f_9^-f_6^+ +f_3^-f_4^-f_5^-f_7^-f_8^-f_{10}^+ +f_3^-f_4^-f_5^-f_7^-f_8^-f_9^- -f_3^-f_4^-f_9^-f_{10}^-f_6^+f_7^+ +f_3^-f_4^-f_7^-f_8^-f_6^+f_{10}^+ -f_3^-f_4^-f_5^-f_9^-f_{10}^-f_7^+}{(-E_3-E_4+E_5+E_6)(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_7-E_8+E_9+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_5^-f_6^-f_9^-f_{10}^-f_4^+f_7^+ -f_3^-f_5^-f_6^-f_7^-f_8^-f_{10}^+ -f_3^-f_5^-f_6^-f_7^-f_8^-f_9^- -f_5^-f_6^-f_7^-f_8^-f_4^+f_{10}^+ -f_5^-f_6^-f_7^-f_8^-f_9^-f_4^+ +f_3^-f_5^-f_6^-f_9^-f_{10}^-f_7^+}{(-E_5-E_6+E_3+E_4)(-E_7+E_1)(-E_5-E_6+E_2+E_7)(-E_9-E_{10}+E_7+E_8)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^-f_4^-f_8^-f_9^-f_{10}^-f_6^+ +f_3^-f_4^-f_5^-f_8^-f_9^-f_{10}^-}{(-E_3-E_4+E_5+E_6)(-E_9-E_{10}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_9-E_{10}+E_7+E_8)(-E_3-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_5^-f_6^-f_8^-f_9^-f_{10}^-f_4^+ +f_3^-f_5^-f_6^-f_8^-f_9^-f_{10}^-}{(-E_5-E_6+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_9-E_{10}+E_7+E_8)(-E_5-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_3^-f_4^-f_8^-f_6^+f_{10}^+f_{12}^+ +f_3^-f_4^-f_5^-f_8^-f_9^-f_{12}^+ +f_3^-f_4^-f_8^-f_9^-f_6^+f_{12}^+ +f_3^-f_4^-f_5^-f_8^-f_{10}^+f_{12}^+ -f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{12}^- -f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_6^+}{(-E_3-E_4+E_5+E_6)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_7+E_{12})(-E_3-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_3^-f_5^-f_6^-f_8^-f_{10}^+f_{12}^+ +f_3^-f_5^-f_6^-f_8^-f_9^-f_{12}^+ +f_5^-f_6^-f_8^-f_4^+f_{10}^+f_{12}^+ -f_3^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^- -f_5^-f_6^-f_9^-f_{10}^-f_{12}^-f_4^+ +f_5^-f_6^-f_8^-f_9^-f_4^+f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_{12}+E_2)(-E_5-E_6+E_1+E_{12})(-E_5-E_6+E_7+E_{12})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_2^-f_5^-f_7^-f_8^-f_4^+f_{10}^+ +f_2^-f_3^-f_5^-f_7^-f_8^-f_{10}^+ +f_2^-f_5^-f_7^-f_8^-f_9^-f_4^+ +f_2^-f_7^-f_8^-f_9^-f_4^+f_6^+ +f_2^-f_3^-f_7^-f_8^-f_9^-f_6^+ +f_2^-f_3^-f_7^-f_8^-f_6^+f_{10}^+ +f_2^-f_3^-f_5^-f_7^-f_8^-f_9^- +f_2^-f_7^-f_8^-f_4^+f_6^+f_{10}^+ -f_2^-f_7^-f_9^-f_{10}^-f_4^+f_6^+ -f_2^-f_3^-f_7^-f_9^-f_{10}^-f_6^+ -f_2^-f_5^-f_7^-f_9^-f_{10}^-f_4^+ -f_2^-f_3^-f_5^-f_7^-f_9^-f_{10}^-}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^-f_3^-f_5^-f_8^-f_9^-f_{12}^- +f_1^-f_3^-f_8^-f_{12}^-f_6^+f_{10}^+ -f_1^-f_5^-f_9^-f_{10}^-f_{12}^-f_4^+ +f_1^-f_5^-f_8^-f_9^-f_{12}^-f_4^+ +f_1^-f_8^-f_9^-f_{12}^-f_4^+f_6^+ +f_1^-f_3^-f_5^-f_8^-f_{12}^-f_{10}^+ +f_1^-f_3^-f_8^-f_9^-f_{12}^-f_6^+ +f_1^-f_8^-f_{12}^-f_4^+f_6^+f_{10}^+ +f_1^-f_5^-f_8^-f_{12}^-f_4^+f_{10}^+ -f_1^-f_3^-f_9^-f_{10}^-f_{12}^-f_6^+ -f_1^-f_3^-f_5^-f_9^-f_{10}^-f_{12}^- -f_1^-f_9^-f_{10}^-f_{12}^-f_4^+f_6^+}{(-E_1+E_7)(-E_1-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_6)} \\
\frac{+f_7^-f_8^-f_{12}^-f_4^+f_6^+f_{10}^+ -f_5^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+ -f_3^-f_7^-f_9^-f_{10}^-f_{12}^-f_6^+ +f_5^-f_7^-f_8^-f_{12}^-f_4^+f_{10}^+ -f_3^-f_5^-f_7^-f_9^-f_{10}^-f_{12}^- +f_3^-f_7^-f_8^-f_{12}^-f_6^+f_{10}^+ +f_3^-f_5^-f_7^-f_8^-f_9^-f_{12}^- +f_5^-f_7^-f_8^-f_9^-f_{12}^-f_4^+ +f_3^-f_7^-f_8^-f_9^-f_{12}^-f_6^+ +f_3^-f_5^-f_7^-f_8^-f_{12}^-f_{10}^+ +f_7^-f_8^-f_9^-f_{12}^-f_4^+f_6^+ -f_7^-f_9^-f_{10}^-f_{12}^-f_4^+f_6^+}{(-E_7+E_1)(-E_7-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_7-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_2^-f_3^-f_9^-f_{10}^-f_6^+f_8^+ +f_2^-f_5^-f_9^-f_{10}^-f_4^+f_8^+ +f_2^-f_9^-f_{10}^-f_4^+f_6^+f_8^+ +f_2^-f_3^-f_5^-f_9^-f_{10}^-f_8^+}{(-E_9-E_{10}+E_1+E_8)(-E_2-E_9-E_{10}+E_3+E_4+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_9^-f_{10}^-f_{12}^-f_4^+f_6^+f_8^+ +f_3^-f_5^-f_9^-f_{10}^-f_{12}^-f_8^+ +f_3^-f_9^-f_{10}^-f_{12}^-f_6^+f_8^+ +f_5^-f_9^-f_{10}^-f_{12}^-f_4^+f_8^+}{(-E_9-E_{10}+E_1+E_8)(-E_9-E_{10}+E_7+E_8)(-E_{12}+E_2)(-E_9-E_{10}-E_{12}+E_3+E_4+E_8)(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)}
\end{array}\right)
$$

$$
-\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,2\}\{7,8|V|9,10\}\{9,10|V|11,8\}\{11,12|V|1,12\}f_{12}^-
\left(\begin{array}{r}
\frac{+f_1^-f_2^-f_8^-f_4^+f_6^+f_{10}^+ +f_1^-f_2^-f_3^-f_5^-f_8^-f_9^- +f_1^-f_2^-f_8^-f_9^-f_4^+f_6^+ +f_1^-f_2^-f_3^-f_5^-f_8^-f_{10}^+ +f_1^-f_2^-f_5^-f_8^-f_4^+f_{10}^+ +f_1^-f_2^-f_3^-f_8^-f_9^-f_6^+ +f_1^-f_2^-f_5^-f_8^-f_9^-f_4^+ -f_1^-f_2^-f_3^-f_9^-f_{10}^-f_6^+ -f_1^-f_2^-f_9^-f_{10}^-f_4^+f_6^+ -f_1^-f_2^-f_3^-f_5^-f_9^-f_{10}^- -f_1^-f_2^-f_5^-f_9^-f_{10}^-f_4^+ +f_1^-f_2^-f_3^-f_8^-f_6^+f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1+E_7)(-E_1-E_8+E_9+E_{10})(-E_1+E_{11})} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_8^-f_9^- +f_1^-f_3^-f_4^-f_8^-f_9^-f_6^+ -f_1^-f_3^-f_4^-f_9^-f_{10}^-f_6^+ +f_1^-f_3^-f_4^-f_8^-f_6^+f_{10}^+ -f_1^-f_3^-f_4^-f_5^-f_9^-f_{10}^- +f_1^-f_3^-f_4^-f_5^-f_8^-f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1+E_7)(-E_1-E_8+E_9+E_{10})(-E_1+E_{11})} \\
\frac{+f_3^-f_4^-f_8^-f_9^-f_2^+f_6^+ +f_3^-f_4^-f_5^-f_8^-f_9^-f_2^+ +f_3^-f_4^-f_8^-f_2^+f_6^+f_{10}^+ -f_3^-f_4^-f_5^-f_9^-f_{10}^-f_2^+ -f_3^-f_4^-f_9^-f_{10}^-f_2^+f_6^+ +f_3^-f_4^-f_5^-f_8^-f_2^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_2+E_7)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_3-E_4+E_2+E_{11})} \\
\frac{+f_1^-f_3^-f_5^-f_6^-f_9^-f_{10}^- +f_1^-f_5^-f_6^-f_9^-f_{10}^-f_4^+ -f_1^-f_5^-f_6^-f_8^-f_4^+f_{10}^+ -f_1^-f_3^-f_5^-f_6^-f_8^-f_9^- -f_1^-f_5^-f_6^-f_8^-f_9^-f_4^+ -f_1^-f_3^-f_5^-f_6^-f_8^-f_{10}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1+E_7)(-E_9-E_{10}+E_1+E_8)(-E_1+E_{11})} \\
\frac{+f_5^-f_6^-f_9^-f_{10}^-f_2^+f_4^+ -f_3^-f_5^-f_6^-f_8^-f_2^+f_{10}^+ -f_5^-f_6^-f_8^-f_2^+f_4^+f_{10}^+ +f_3^-f_5^-f_6^-f_9^-f_{10}^-f_2^+ -f_3^-f_5^-f_6^-f_8^-f_9^-f_2^+ -f_5^-f_6^-f_8^-f_9^-f_2^+f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_5-E_6+E_2+E_{11})} \\
\frac{+f_3^-f_4^-f_5^-f_7^-f_8^-f_{10}^+ +f_3^-f_4^-f_7^-f_8^-f_9^-f_6^+ +f_3^-f_4^-f_5^-f_7^-f_8^-f_9^- -f_3^-f_4^-f_7^-f_9^-f_{10}^-f_6^+ -f_3^-f_4^-f_5^-f_7^-f_9^-f_{10}^- +f_3^-f_4^-f_7^-f_8^-f_6^+f_{10}^+}{(-E_3-E_4+E_5+E_6)(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_7-E_8+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_5^-f_6^-f_7^-f_8^-f_9^-f_4^+ +f_3^-f_5^-f_6^-f_7^-f_8^-f_{10}^+ +f_5^-f_6^-f_7^-f_8^-f_4^+f_{10}^+ -f_5^-f_6^-f_7^-f_9^-f_{10}^-f_4^+ +f_3^-f_5^-f_6^-f_7^-f_8^-f_9^- -f_3^-f_5^-f_6^-f_7^-f_9^-f_{10}^-}{(-E_5-E_6+E_3+E_4)(-E_7+E_1)(-E_5-E_6+E_2+E_7)(-E_7-E_8+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_6^+f_8^+ +f_3^-f_4^-f_5^-f_9^-f_{10}^-f_8^+}{(-E_3-E_4+E_5+E_6)(-E_9-E_{10}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_5^-f_6^-f_9^-f_{10}^-f_4^+f_8^+ +f_3^-f_5^-f_6^-f_9^-f_{10}^-f_8^+}{(-E_5-E_6+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_{11}^-f_6^+ +f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{11}^- -f_3^-f_4^-f_8^-f_9^-f_{11}^-f_6^+ -f_3^-f_4^-f_5^-f_8^-f_9^-f_{11}^- -f_3^-f_4^-f_5^-f_8^-f_{11}^-f_{10}^+ -f_3^-f_4^-f_8^-f_{11}^-f_6^+f_{10}^+}{(-E_3-E_4+E_5+E_6)(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})(-E_{11}+E_7)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_5^-f_6^-f_8^-f_{11}^-f_4^+f_{10}^+ -f_3^-f_5^-f_6^-f_9^-f_{10}^-f_{11}^- +f_3^-f_5^-f_6^-f_8^-f_{11}^-f_{10}^+ -f_5^-f_6^-f_9^-f_{10}^-f_{11}^-f_4^+ +f_3^-f_5^-f_6^-f_8^-f_9^-f_{11}^- +f_5^-f_6^-f_8^-f_9^-f_{11}^-f_4^+}{(-E_5-E_6+E_3+E_4)(-E_{11}+E_1)(-E_5-E_6+E_2+E_{11})(-E_{11}+E_7)(-E_8-E_{11}+E_9+E_{10})} \\
\frac{+f_2^-f_7^-f_8^-f_4^+f_6^+f_{10}^+ +f_2^-f_3^-f_7^-f_8^-f_6^+f_{10}^+ +f_2^-f_5^-f_7^-f_8^-f_4^+f_{10}^+ +f_2^-f_5^-f_7^-f_8^-f_9^-f_4^+ +f_2^-f_7^-f_8^-f_9^-f_4^+f_6^+ -f_2^-f_7^-f_9^-f_{10}^-f_4^+f_6^+ +f_2^-f_3^-f_5^-f_7^-f_8^-f_{10}^+ +f_2^-f_3^-f_5^-f_7^-f_8^-f_9^- -f_2^-f_3^-f_5^-f_7^-f_9^-f_{10}^- +f_2^-f_3^-f_7^-f_8^-f_9^-f_6^+ -f_2^-f_5^-f_7^-f_9^-f_{10}^-f_4^+ -f_2^-f_3^-f_7^-f_9^-f_{10}^-f_6^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_2^-f_3^-f_5^-f_9^-f_{10}^-f_8^+ +f_2^-f_3^-f_9^-f_{10}^-f_6^+f_8^+ +f_2^-f_9^-f_{10}^-f_4^+f_6^+f_8^+ +f_2^-f_5^-f_9^-f_{10}^-f_4^+f_8^+}{(-E_9-E_{10}+E_1+E_8)(-E_2-E_9-E_{10}+E_3+E_4+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})} \\
\frac{+f_2^-f_5^-f_8^-f_{11}^-f_4^+f_{10}^+ +f_2^-f_8^-f_9^-f_{11}^-f_4^+f_6^+ -f_2^-f_5^-f_9^-f_{10}^-f_{11}^-f_4^+ -f_2^-f_3^-f_5^-f_9^-f_{10}^-f_{11}^- -f_2^-f_9^-f_{10}^-f_{11}^-f_4^+f_6^+ -f_2^-f_3^-f_9^-f_{10}^-f_{11}^-f_6^+ +f_2^-f_3^-f_5^-f_8^-f_{11}^-f_{10}^+ +f_2^-f_3^-f_8^-f_9^-f_{11}^-f_6^+ +f_2^-f_3^-f_5^-f_8^-f_9^-f_{11}^- +f_2^-f_5^-f_8^-f_9^-f_{11}^-f_4^+ +f_2^-f_3^-f_8^-f_{11}^-f_6^+f_{10}^+ +f_2^-f_8^-f_{11}^-f_4^+f_6^+f_{10}^+}{(-E_{11}+E_1)(-E_2-E_{11}+E_3+E_4)(-E_2-E_{11}+E_5+E_6)(-E_{11}+E_7)(-E_8-E_{11}+E_9+E_{10})}
\end{array}\right)
$$

$$-\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,2\}\{7,8|V|1,10\}\{9,10|V|11,12\}\{11,12|V|9,8\}\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_6^+ + f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^- - f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ f_{12}^+ - f_1^- f_2^- f_8^- f_9^- f_4^+ f_6^+ f_{12}^+ + f_1^- f_2^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ - f_1^- f_2^- f_3^- f_8^- f_9^- f_6^+ f_{12}^+ - f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{12}^+ - f_1^- f_2^- f_5^- f_8^- f_9^- f_{11}^- f_4^+ - f_1^- f_2^- f_8^- f_9^- f_{11}^- f_4^+ f_6^+ - f_1^- f_2^- f_3^- f_8^- f_9^- f_{11}^- f_6^+ - f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1+E_7)(-E_8+E_{10})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_{12}^+ + f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ f_{12}^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+ - f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^- f_6^+ + f_1^- f_2^- f_9^- f_{10}^- f_{11}^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1+E_7)(-E_{10}+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_9^+ + f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_6^+ f_9^+ + f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_9^+ + f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1+E_7)(-E_{11}-E_{12}+E_8+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^+ - f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- + f_1^- f_3^- f_4^- f_8^- f_9^- f_6^+ f_{12}^+ - f_1^- f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_6^+ + f_1^- f_3^- f_4^- f_8^- f_9^- f_{11}^- f_6^+ + f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1+E_7)(-E_8+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_{12}^+ + f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_6^+ + f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_6^+ + f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1+E_7)(-E_{10}+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{11}^- f_{12}^- f_6^+ f_9^+ + f_1^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1+E_7)(-E_{11}-E_{12}+E_8+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_2^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+ f_{12}^+ - f_3^- f_4^- f_8^- f_9^- f_2^+ f_6^+ f_{12}^+ + f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_2^+ f_6^+ - f_3^- f_4^- f_8^- f_9^- f_{11}^- f_2^+ f_6^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_2+E_7)(-E_8+E_{10})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ f_{12}^+ + f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+ f_{12}^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_2^+ f_6^+ - f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_2^+ + f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_2^+ f_6^+ + f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_2+E_7)(-E_{10}+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_2^+ f_6^+ f_9^+ + f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_2+E_7)(-E_{11}-E_{12}+E_8+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ + f_1^- f_5^- f_6^- f_8^- f_9^- f_{11}^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{11}^- + f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ f_{12}^+ - f_1^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1+E_7)(-E_8+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- + f_1^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1+E_7)(-E_{10}+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_9^+ + f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_9^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1+E_7)(-E_{11}-E_{12}+E_8+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_9^- f_{11}^- f_2^+ + f_5^- f_6^- f_8^- f_9^- f_{11}^- f_2^+ f_4^+ - f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_2^+ - f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_2^+ f_4^+ + f_3^- f_5^- f_6^- f_8^- f_9^- f_2^+ f_{12}^+ + f_5^- f_6^- f_8^- f_9^- f_2^+ f_4^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_8+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_2^+ f_4^+ + f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_2^+ + f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_4^+ f_{12}^+ - f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_2^+ - f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_2^+ f_4^+ + f_3^- f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_{10}+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_{11}^- f_{12}^- f_2^+ f_4^+ f_9^+ + f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_2^+ f_9^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_{11}-E_{12}+E_8+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_{12}^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_{11}^- + f_3^- f_4^- f_7^- f_8^- f_9^- f_{11}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_8+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ f_{12}^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^- f_6^+ + f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^- - f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_{10}+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ f_9^+ + f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_3-E_4+E_5+E_6)(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_{11}-E_{12}+E_8+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- - f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- f_{11}^- - f_5^- f_6^- f_7^- f_8^- f_9^- f_{11}^- f_4^+ - f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- f_{12}^+ + f_5^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_7+E_1)(-E_5-E_6+E_2+E_7)(-E_8+E_{10})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_5^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ - f_5^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ - f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^- + f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^-}{(-E_5-E_6+E_3+E_4)(-E_7+E_1)(-E_5-E_6+E_2+E_7)(-E_{10}+E_8)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_9^+ + f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ f_9^+}{(-E_5-E_6+E_3+E_4)(-E_7+E_1)(-E_5-E_6+E_2+E_7)(-E_{11}-E_{12}+E_8+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{11}^- f_4^+ f_6^+ - f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ + f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+ - f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- + f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^+ + f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+ + f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+ f_{12}^+ + f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{11}^- + f_2^- f_3^- f_7^- f_8^- f_9^- f_{11}^- f_6^+ + f_2^- f_5^- f_7^- f_8^- f_9^- f_{11}^- f_4^+ - f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ - f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_8+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ + f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ f_{12}^+ + f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ + f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^- f_6^+ + f_2^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ f_6^+ + f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^- + f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ f_{12}^+ - f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+ - f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^-}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_{10}+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- f_9^+ + f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+ f_9^+ + f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_6^+ f_9^+ + f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_9^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_{11}-E_{12}+E_8+E_9)(-E_{11}-E_{12}+E_9+E_{10})}
\end{array}\right)$$

$$-\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,10\}\{7,8|V|9,2\}\{9,10|V|11,12\}\{11,12|V|1,8\}\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ +f_1^- f_2^- f_7^- f_8^- f_4^+ f_6^+ f_{12}^+ +f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_6^+ f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{12}^+ +f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_7+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_4^+ f_7^+ f_{12}^+ +f_1^- f_2^- f_9^- f_4^+ f_6^+ f_7^+ f_{12}^+ +f_1^- f_2^- f_3^- f_9^- f_6^+ f_7^+ f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- f_7^+ +f_1^- f_2^- f_9^- f_{11}^- f_4^+ f_6^+ f_7^+ +f_1^- f_2^- f_5^- f_9^- f_{11}^- f_4^+ f_7^+ +f_1^- f_2^- f_3^- f_9^- f_{11}^- f_6^+ f_7^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_7^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_7+E_{10})(-E_1-E_2-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_8^- f_9^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{11}^- +f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ f_{12}^+ +f_1^- f_2^- f_8^- f_9^- f_4^+ f_6^+ f_{12}^+ +f_1^- f_2^- f_3^- f_8^- f_9^- f_6^+ f_{12}^+ +f_1^- f_2^- f_3^- f_8^- f_9^- f_{11}^- f_6^+ +f_1^- f_2^- f_8^- f_9^- f_{11}^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+ f_{10}^+ +f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_6^+ f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{10}^+ +f_1^- f_2^- f_3^- f_8^- f_{11}^- f_6^+ f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_{10}^+ f_{12}^+ +f_1^- f_2^- f_3^- f_8^- f_6^+ f_{10}^+ f_{12}^+ +f_1^- f_2^- f_5^- f_8^- f_4^+ f_{10}^+ f_{12}^+ +f_1^- f_2^- f_8^- f_4^+ f_6^+ f_{10}^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_{10})(-E_1-E_8+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ f_{12}^+ +f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^- +f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^- f_6^+ +f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{11}^- f_4^+ +f_1^- f_2^- f_9^- f_{10}^- f_{11}^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- +f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_{10})(-E_{11}-E_{12}+E_1+E_8)(-E_7-E_{11}-E_{12}+E_1+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_{10}^+ +f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ +f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_{10})(-E_{11}-E_{12}+E_1+E_8)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_{11}-E_{12}+E_1+E_8)(-E_1-E_2-E_9+E_7+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_2^+ f_6^+ f_{12}^+ +f_3^- f_4^- f_5^- f_7^- f_8^- f_2^+ f_{12}^+ +f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_2^+ +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_7^+ f_{12}^+ +f_2^- f_3^- f_4^- f_9^- f_6^+ f_7^+ f_{12}^+ +f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^- f_7^+ +f_2^- f_3^- f_4^- f_9^- f_{11}^- f_6^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_{11}^- f_2^+ +f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+ f_{12}^+ +f_3^- f_4^- f_8^- f_9^- f_2^+ f_6^+ f_{12}^+ +f_3^- f_4^- f_8^- f_9^- f_{11}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_6^+ f_{12}^+ +f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{12}^+ +f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ +f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_7+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_6^+ f_7^+ f_{12}^+ +f_3^- f_4^- f_5^- f_9^- f_1^+ f_7^+ f_{12}^+ +f_3^- f_4^- f_9^- f_{11}^- f_1^+ f_6^+ f_7^+ +f_3^- f_4^- f_5^- f_9^- f_{11}^- f_1^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{11}^- +f_1^- f_3^- f_4^- f_8^- f_9^- f_6^+ f_{12}^+ +f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^+ +f_1^- f_3^- f_4^- f_8^- f_9^- f_{11}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_{11}^- f_6^+ f_{10}^+ +f_1^- f_3^- f_4^- f_5^- f_8^- f_{10}^+ f_{12}^+ +f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{10}^+ +f_1^- f_3^- f_4^- f_8^- f_6^+ f_{10}^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_1-E_8+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_6^+ f_{12}^+ +f_3^- f_4^- f_5^- f_9^- f_{10}^- f_1^+ f_{12}^+ +f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^- f_1^+ +f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ f_{10}^+ +f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_6^+ f_{10}^+ +f_3^- f_4^- f_8^- f_2^+ f_6^+ f_{10}^+ f_{12}^+ +f_3^- f_4^- f_5^- f_8^- f_2^+ f_{10}^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^- +f_2^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^+ +f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_2-E_9-E_{10}+E_3+E_4+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_1^+ f_6^+ +f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_{11}-E_{12}+E_1+E_8)(-E_7-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_1^+ f_6^+ f_{10}^+ +f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_{11}-E_{12}+E_1+E_8)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_2-E_{11}-E_{12}+E_3+E_4+E_8)(-E_7-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_{10}^+ +f_2^- f_3^- f_4^- f_{11}^- f_{12}^- f_6^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_2-E_{11}-E_{12}+E_3+E_4+E_8)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_1^+ +f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_{11}-E_{12}+E_1+E_8)(-E_3-E_4-E_9+E_7+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- +f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2-E_{11}-E_{12}+E_3+E_4+E_8)(-E_3-E_4-E_9+E_7+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_5^- f_6^- f_7^- f_8^- f_2^+ f_4^+ f_{12}^+ +f_3^- f_5^- f_6^- f_7^- f_8^- f_2^+ f_{12}^+ +f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_2^+ +f_5^- f_6^- f_7^- f_8^- f_{11}^- f_2^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_7^+ f_{12}^+ +f_2^- f_5^- f_6^- f_9^- f_{11}^- f_4^+ f_7^+ +f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- f_7^+ +f_2^- f_5^- f_6^- f_9^- f_4^+ f_7^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_9^- f_2^+ f_4^+ f_{12}^+ +f_5^- f_6^- f_8^- f_9^- f_{11}^- f_2^+ f_4^+ +f_3^- f_5^- f_6^- f_8^- f_9^- f_{11}^- f_2^+ +f_3^- f_5^- f_6^- f_8^- f_9^- f_2^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_5-E_6-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_7^- f_8^- f_4^+ f_{12}^+ +f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_{12}^+ +f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- +f_1^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1-E_7-E_8+E_5+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_1^+ f_7^+ f_{12}^+ +f_5^- f_6^- f_9^- f_1^+ f_4^+ f_7^+ f_{12}^+ +f_3^- f_5^- f_6^- f_9^- f_{11}^- f_1^+ f_7^+ +f_5^- f_6^- f_9^- f_{11}^- f_1^+ f_4^+ f_7^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_9+E_1+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{11}^- +f_1^- f_5^- f_6^- f_8^- f_9^- f_{11}^- f_4^+ +f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ f_{12}^+ +f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_9+E_1+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^+ f_{12}^+ +f_1^- f_5^- f_6^- f_8^- f_4^+ f_{10}^+ f_{12}^+ +f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_{10}^+ +f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_1-E_8+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_1^+ f_4^+ f_{12}^+ +f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_1^+ +f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_1^+ f_4^+ +f_3^- f_5^- f_6^- f_9^- f_{10}^- f_1^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_2^+ f_4^+ f_{10}^+ f_{12}^+ +f_3^- f_5^- f_6^- f_8^- f_2^+ f_{10}^+ f_{12}^+ +f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_4^+ f_{10}^+ +f_3^- f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_{10}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_5-E_6-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_4^+ +f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- +f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+ +f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{12}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_1^+ +f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_1^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_{11}-E_{12}+E_1+E_8)(-E_7-E_{11}-E_{12}+E_5+E_6+E_9)} \\
\frac{+f_5^- f_6^- f_{11}^- f_{12}^- f_1^+ f_4^+ f_{10}^+ +f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_1^+ f_{10}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_{11}-E_{12}+E_1+E_8)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- +f_2^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_2-E_{11}-E_{12}+E_5+E_6+E_8)(-E_7-E_{11}-E_{12}+E_5+E_6+E_9)} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ +f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_{10}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_2-E_{11}-E_{12}+E_5+E_6+E_8)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_1^+ f_4^+ +f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_1^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_{11}-E_{12}+E_1+E_8)(-E_5-E_6-E_9+E_7+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ +f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2-E_{11}-E_{12}+E_5+E_6+E_8)(-E_5-E_6-E_9+E_7+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_7^+ f_{12}^+ +f_3^- f_4^- f_8^- f_9^- f_{11}^- f_6^+ f_7^+ +f_3^- f_4^- f_8^- f_9^- f_6^+ f_7^+ f_{12}^+ +f_3^- f_4^- f_5^- f_8^- f_9^- f_{11}^- f_7^+}{(-E_3-E_4+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_9^- f_{11}^- f_4^+ f_7^+ +f_5^- f_6^- f_8^- f_9^- f_4^+ f_7^+ f_{12}^+ +f_3^- f_5^- f_6^- f_8^- f_9^- f_7^+ f_{12}^+ +f_3^- f_5^- f_6^- f_8^- f_9^- f_{11}^- f_7^+}{(-E_5-E_6+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_5-E_6-E_9+E_1+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- f_{11}^- +f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{11}^- f_6^+ +f_3^- f_4^- f_8^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_{11}-E_{12}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})(-E_7-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ +f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_{11}-E_{12}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^- f_{12}^+ +f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^- f_{11}^- +f_5^- f_6^- f_8^- f_9^- f_{10}^- f_{11}^- f_4^+ +f_5^- f_6^- f_8^- f_9^- f_{10}^- f_4^+ f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- +f_5^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_{11}-E_{12}+E_1+E_8)(-E_5-E_6-E_8+E_2+E_{11}+E_{12})(-E_7-E_{11}-E_{12}+E_5+E_6+E_9)} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_{10}^+ +f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_{11}-E_{12}+E_1+E_8)(-E_5-E_6-E_8+E_2+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})}
\end{array}\right)$$

$$-\frac{1}{24}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,8\}\{7,8|V|5,10\}\{9,10|V|11,12\}\{11,12|V|9,2\}\left(\right.$$

$$\frac{+f_1^- f_2^- f_5^- f_7^- f_9^- f_{11}^- f_4^+ +f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{11}^- +f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ +f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_2^+ -f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_8^+ -f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^- f_2^+ -f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_8^+ +f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_2^+ f_8^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_8^+ f_{12}^+ -f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+ -f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+ -f_3^- f_4^- f_5^- f_7^- f_9^- f_2^+ f_{12}^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{12}^+ +f_1^- f_2^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_2+E_{10})(-E_2-E_9+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- -f_3^- f_4^- f_5^- f_9^- f_6^+ f_8^+ f_{12}^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- -f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+ +f_1^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ +f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_6^+ f_8^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+ +f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+ -f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+ +f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_5^- f_6^- f_7^- f_9^- f_4^+ f_{12}^+ +f_1^- f_5^- f_6^- f_9^- f_4^+ f_8^+ f_{12}^+ +f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{12}^+ -f_1^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_3^- f_6^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_6+E_{10})(-E_{11}-E_{12}+E_6+E_9)}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^+ f_{12}^+ -f_1^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_4^+ -f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_8^+ f_{10}^+ -f_1^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+ -f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^- +f_1^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_3^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^+ f_{12}^+ +f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_8^+ +f_1^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- -f_1^- f_3^- f_5^- f_9^- f_{10}^- f_8^+ f_{12}^+ +f_3^- f_4^- f_5^- f_9^- f_8^+ f_{10}^+ f_{12}^+ -f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_{10}^+ -f_1^- f_5^- f_9^- f}{(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_{10}+E_6)(-E_5-E_{10}+E_7+E_8)(-E_9-E_{10}+E_{11}+E_{12})}$$

$$-\frac{1}{16}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,8\}\{7,8|V|9,2\}\{9,10|V|11,12\}\{11,12|V|5,10\}\left(\right.$$

$$\frac{+f_3^- f_4^- f_5^- f_{10}^- f_2^+ f_8^+ f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- +f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_8^+ -f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_2^+ f_8^+ +f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_8^+ -f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_2^+ -f_1^- f_2^- f_5^- f_{10}^- f_4^+ f_8^+ f_{12}^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{12}^+ -f_1^- f_2^- f_5^- f_7^- f_{10}^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_5^- f_{10}^- f_8^+ f_{12}^+ +f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ f_8^+ -f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_8^+ -f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ +f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_2^+ -f_1^- f_2^- f_5^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_5+E_9)(-E_5-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_2^+ f_{12}^+ -f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ -f_1^- f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{10}+E_2+E_{11}+E}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^- +f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^- f_8^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^- f_2^+ +f_1^- f_2^- f_9^- f_{10}^- f_{11}^- f_4^+ f_8^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_{12}^+ -f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ f_8^+ -f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_8^+ +f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_8^+ f_{12}^+ -f_1^- f_2^- f_3^- f_7^- f_9^- f_{11}^- f_{12}^- -f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_8^+ f_{12}^+ +f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_2^+ +f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_2^+ f_8^+ +f_1^- f_2^- f_3^- f_9^- f_{10}^- f_8^+ f_{12}^+ -f_1^- f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ -f_3^- f_4^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9+E_5)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_2^+ f_{10}^+ -f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_3^- f_4^- f_{11}^- f_{12}^- f_2^+ f_8^+ f_{10}^+ -f_1^- f_2^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_{11}-E_{12}+E_5+E_{10})(-E_2-E_{11}-E}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_8^+ +f_1^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- -f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_8^+ -f_1^- f_3^- f_4^- f_5^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- -f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+ -}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_1-E_7-E_8}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^- -f_1^- f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- -f_1^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_8^+ +f_1^- f_3^- f_4^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_3-E_4-E_9}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_{10}^+ +f_1^- f_3^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_{11}-E_{12}+E_5+E_{10})(-E_3-E}$$

$$\frac{+f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+ +f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_6^+ f_8^+ -f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+ -f_1^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_3^- f_5^- f_6^- f_{10}^- f_8^+ f_{12}^+ +f_1^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- -f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+ -f_3^- f_4^- f_5^- f_7^- f_{10}^- f_6^+ f_{12}^+ +f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_5^- f_6^- f_{10}^- f_4^+ f_8^+ f_{12}^+ -f_3^- f_4^- f_5^- f_{10}^- f_6^+ f_8^+ f_{12}^+ +f_1^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ +f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_8^+ -f_3^- f_4^- f_5^- f_7^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5+E_9)(-E_5-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- -f_1^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ +f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^+ -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+ +f_1^- f_3^- f_6^- f_7^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_6-E_{11}-E_{12}+E_7+E_8+E}$$

$$\frac{+f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^- -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^- f_6^+ +f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ +f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ -f_1^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_3^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- +f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_6^+ -f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+ f_{12}^+ -f_1^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ -f_1^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ f_8^+ +f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_6^+ f_8^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_1^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ f_{12}^+ +f_1^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ f_{12}^+ -f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_6^+ f_8^+ +f_1^- f_3^- f_6^- f_7^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9+E_5)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ -f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ +f_1^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- f_{10}^+ +f_1^- f_3^- f_6^- f_{11}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_{11}-E_{12}+E_5+E_{10})(-E_6-E_{11}-E}$$

$$\frac{+f_1^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ f_5^+ +f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_5^+ +f_1^- f_3^- f_7^- f_8^- f_{10}^- f_5^+ f_{12}^+ +f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_7^+ f_8^+ -f_3^- f_4^- f_5^- f_{10}^- f_7^+ f_8^+ f_{12}^+ +f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_5^+ f_{12}^+ -f_1^- f_3^- f_7^- f_8^-}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_5+E_6)(-E_5+E_9)(-E_5-E_{10}+E_{11}+E}$$

$$\frac{+f_3^- f_4^- f_9^- f_{10}^- f_7^+ f_8^+ f_{12}^+ +f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_9^+ -f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_7^+ f_8^+ +f_1^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_9^+ -f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_9^+ -f_1^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ f_9^+ -f_1^- f_3^- f_7^- f_8^-}{(-E_9+E_5)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_{11}+E}$$

$$\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_7^+ f_8^+ f_{10}^+ -f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^+ f_{12}^+ -f_1^- f_7^-}{(-E_{11}-E_{12}+E_5+E_{10})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})(-E_3-E_4-E_{11}-E_{12}+E_1+E_7+E_8+E_{10}}$$

$$
-\frac{1}{48}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,8\}\{7,8|V|9,2\}\{9,10|V|11,12\}\{11,12|V|1,6\}
\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- + f_1^- f_2^- f_5^- f_6^- f_7^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{12}^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_8^+ f_{12}^+ + f_1^- f_2^- f_5^- f_6^- f_4^+ f_8^+ f_{12}^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+ + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+ + f_1^- f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{12}^+ + f_2^- f_3^- f_4^- f_5^- f_6^- f_8^+ f_{12}^+ + f_2^- f_3^- f_4^- f_5^- f_6^- f_{11}^- f_8^+ + f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_1^+ f_{12}^+ + f_3^- f_4^- f_5^- f_6^- f_1^+ f_8^+ f_{12}^+ + f_3^- f_4^- f_5^- f_6^- f_{11}^- f_1^+ f_8^+ + f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_8)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_5^+ f_{12}^+ + f_1^- f_2^- f_7^- f_8^- f_4^+ f_5^+ f_{12}^+ + f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_5^+ f_{12}^+ + f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_7-E_8+E_2+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_8^- f_4^+ f_{12}^+ + f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2-E_6+E_7+E_8+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{12}^+ + f_2^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_1^+ f_5^+ f_{12}^+ + f_3^- f_4^- f_7^- f_8^- f_{11}^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_1^+ f_{12}^+ + f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_9^- f_{11}^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_{11}^- f_5^+ + f_1^- f_2^- f_3^- f_9^- f_5^+ f_8^+ f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_5^+ f_{12}^+ + f_1^- f_2^- f_7^- f_9^- f_4^+ f_5^+ f_{12}^+ + f_1^- f_2^- f_9^- f_4^+ f_5^+ f_8^+ f_{12}^+ + f_1^- f_2^- f_9^- f_{11}^- f_4^+ f_5^+ f_8^+ + f_1^- f_2^- f_3^- f_9^- f_{11}^- f_5^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_5^+ f_{12}^+ + f_2^- f_3^- f_4^- f_9^- f_{11}^- f_5^+ f_8^+ + f_2^- f_3^- f_4^- f_7^- f_9^- f_{11}^- f_5^+ + f_2^- f_3^- f_4^- f_9^- f_5^+ f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_9^- f_{11}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_6^- f_9^- f_8^+ f_{12}^+ + f_1^- f_2^- f_6^- f_9^- f_4^+ f_8^+ f_{12}^+ + f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^- f_8^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{11}^- + f_1^- f_2^- f_6^- f_7^- f_9^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^+ + f_2^- f_3^- f_4^- f_6^- f_9^- f_{11}^- f_8^+ + f_2^- f_3^- f_4^- f_6^- f_9^- f_8^+ f_{12}^+ + f_2^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_1^+ f_5^+ f_{12}^+ + f_3^- f_4^- f_9^- f_1^+ f_5^+ f_8^+ f_{12}^+ + f_3^- f_4^- f_9^- f_{11}^- f_1^+ f_5^+ f_8^+ + f_3^- f_4^- f_7^- f_9^- f_{11}^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_1^+ f_8^+ f_{12}^+ + f_3^- f_4^- f_6^- f_7^- f_9^- f_1^+ f_{12}^+ + f_3^- f_4^- f_6^- f_9^- f_{11}^- f_1^+ f_8^+ + f_3^- f_4^- f_6^- f_7^- f_9^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{10})(-E_7-E_8-E_{10}+E_1+E_2+E_6)(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^- f_8^+ + f_1^- f_2^- f_9^- f_{10}^- f_{11}^- f_4^+ f_8^+ + f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^- + f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_8^+ f_{12}^+ + f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_8^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- + f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_8^+ + f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^- + f_2^- f_3^- f_4^- f_9^- f_{10}^- f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- + f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_{11}-E_{12}+E_1+E_6)(-E_1-E_7-E_8+E_5+E_{11}+E_{12})(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{11}^- f_{12}^- + f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_8^+ + f_1^- f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_{11}-E_{12}+E_1+E_6)(-E_1-E_2-E_9+E_5+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_7-E_8+E_2+E_5+E_{11}+E_{12})(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- + f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_9+E_5+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_1^+ + f_3^- f_4^- f_7^- f_8^- f_{10}^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_1-E_7-E_8-E_{10}+E_3+E_4+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ f_{12}^+ + f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_1^+ f_8^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^- f_1^+ + f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_1+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_{11}-E_{12}+E_1+E_6)(-E_1-E_7-E_8+E_5+E_{11}+E_{12})(-E_3-E_4-E_{11}-E_{12}+E_1+E_7+E_8+E_{10})} \\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_1^+ f_8^+ + f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_{11}-E_{12}+E_1+E_6)(-E_3-E_4-E_9+E_5+E_{11}+E_{12})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_{10}^+ f_{12}^+ + f_1^- f_2^- f_6^- f_7^- f_4^+ f_{10}^+ f_{12}^+ + f_1^- f_2^- f_6^- f_4^+ f_8^+ f_{10}^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_8^+ f_{10}^+ f_{12}^+ + f_1^- f_2^- f_6^- f_7^- f_{11}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_8^+ f_{10}^+ + f_1^- f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_{10}^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_2-E_6+E_7+E_8+E_{10})(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_8^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- + f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_{11}-E_{12}+E_1+E_6)(-E_5-E_{11}-E_{12}+E_1+E_7+E_8)(-E_5-E_{11}-E_{12}+E_1+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_{10}^+ + f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_8^+ f_{10}^+ + f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_8^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_{11}-E_{12}+E_1+E_6)(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_1^+ f_{10}^+ f_{12}^+ + f_3^- f_4^- f_6^- f_1^+ f_8^+ f_{10}^+ f_{12}^+ + f_3^- f_4^- f_6^- f_7^- f_{11}^- f_1^+ f_{10}^+ + f_3^- f_4^- f_6^- f_{11}^- f_1^+ f_8^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_8^+ f_{10}^+ f_{12}^+ + f_2^- f_3^- f_4^- f_6^- f_7^- f_{10}^+ f_{12}^+ + f_2^- f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_{10}^+ + f_2^- f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_1^+ + f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_{11}-E_{12}+E_1+E_6)(-E_5-E_{11}-E_{12}+E_1+E_7+E_8)(-E_5-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_1^+ f_{10}^+ + f_3^- f_4^- f_{11}^- f_{12}^- f_1^+ f_8^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_{11}-E_{12}+E_1+E_6)(-E_3-E_4-E_{11}-E_{12}+E_1+E_7+E_8+E_{10})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- + f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)(-E_2-E_5-E_{11}-E_{12}+E_3+E_4+E_7+E_8)(-E_5-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_3^- f_4^- f_{11}^- f_{12}^- f_8^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_9^+ f_{12}^+ + f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ + f_3^- f_4^- f_5^- f_6^- f_{11}^- f_8^+ f_9^+ + f_3^- f_4^- f_5^- f_6^- f_8^+ f_9^+ f_{12}^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ f_9^+ + f_1^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ + f_1^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+ f_9^+ + f_1^- f_3^- f_5^- f_6^- f_7^- f_9^+ f_{12}^+ + f_1^- f_3^- f_5^- f_6^- f_{11}^- f_8^+ f_9^+ + f_1^- f_5^- f_6^- f_7^- f_4^+ f_9^+ f_{12}^+ + f_1^- f_5^- f_6^- f_4^+ f_8^+ f_9^+ f_{12}^+ + f_1^- f_3^- f_5^- f_6^- f_8^+ f_9^+ f_{12}^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_1-E_5-E_6+E_3+E_4+E_9)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+ + f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- + f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+ + f_2^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ + f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_8^+ + f_2^- f_5^- f_6^- f_{10}^- f_4^+ f_8^+ f_{12}^+ + f_2^- f_3^- f_5^- f_6^- f_{10}^- f_8^+ f_{12}^+ + f_2^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_{12}^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_5-E_6-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{10}^- f_9^+ f_{12}^+ + f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_9^+ f_{12}^+ + f_3^- f_5^- f_6^- f_{10}^- f_8^+ f_9^+ f_{12}^+ + f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ f_9^+ + f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+ f_9^+ + f_5^- f_6^- f_{10}^- f_4^+ f_8^+ f_9^+ f_{12}^+ + f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_9^+ + f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_8^+ f_9^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_6)(-E_9-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_6^+ f_8^+ + f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- f_6^+ + f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+ f_6^+ + f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_8^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_{11}-E_{12}+E_1+E_6)(-E_2-E_{11}-E_{12}+E_3+E_4+E_6)(-E_2-E_{11}-E_{12}+E_5+E_6+E_{10})} \\
\frac{+f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+ f_9^+ + f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ f_9^+ + f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+ f_9^+ + f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_2+E_9)(-E_{11}-E_{12}+E_1+E_6)(-E_5-E_{11}-E_{12}+E_3+E_4+E_9)(-E_{11}-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+ f_9^+ + f_3^- f_4^- f_7^- f_8^- f_5^+ f_9^+ f_{12}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_9^+ f_{12}^+ + f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4-E_6-E_9+E_7+E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_9^+ f_{12}^+ + f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ + f_1^- f_6^- f_7^- f_8^- f_4^+ f_9^+ f_{12}^+ + f_1^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_5^+ f_9^+ f_{12}^+ + f_1^- f_3^- f_7^- f_8^- f_{11}^- f_5^+ f_9^+ + f_1^- f_7^- f_8^- f_4^+ f_5^+ f_9^+ f_{12}^+ + f_1^- f_7^- f_8^- f_{11}^- f_4^+ f_5^+ f_9^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_7-E_8+E_5+E_9+E_{10})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- + f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ + f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ + f_2^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ f_9^+ + f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_9^+ f_{12}^+ + f_3^- f_5^- f_7^- f_8^- f_{10}^- f_9^+ f_{12}^+ + f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_9^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_5-E_9-E_{10}+E_1+E_7+E_8)(-E_9-E_{10}+E_{11}+E_{12})}
\end{array}\right)
$$

$$+\frac{1}{16}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,8\}\{7,8|V|9,10\}\{9,10|V|1,12\}\{11,12|V|11,2\}f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_7^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- + f_1^- f_2^- f_4^+ f_6^+ f_8^+ f_{10}^+ + f_1^- f_2^- f_3^- f_6^+ f_8^+ f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_8^+ f_{10}^+ + f_1^- f_2^- f_5^- f_4^+ f_8^+ f_{10}^+ + f_1^- f_2^- f_5^- f_9^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_9^- f_6^+ f_8^+ + f_1^- f_2^- f_3^- f_7^- f_6^+ f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_8^+ + f_1^- f_2^- f_5^- f_7^- f_4^+ f_{10}^+ + f_1^- f_2^- f_9^- f_4^+ f_6^+ f_8^+ + f_1^- f_2^- f_7^- f_4^+ f_6^+ f_{10}^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_6^+ + f_1^- f_2^- f_7^- f_9^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_8)(-E_1-E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- + f_2^- f_3^- f_4^- f_5^- f_8^+ f_{10}^+ + f_2^- f_3^- f_4^- f_6^+ f_8^+ f_{10}^+ + f_2^- f_3^- f_4^- f_5^- f_9^- f_8^+ + f_2^- f_3^- f_4^- f_5^- f_7^- f_{10}^+ + f_2^- f_3^- f_4^- f_7^- f_6^+ f_{10}^+ + f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+ + f_2^- f_3^- f_4^- f_9^- f_6^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_1^+ f_8^+ f_{10}^+ + f_3^- f_4^- f_5^- f_7^- f_9^- f_1^+ + f_3^- f_4^- f_1^+ f_6^+ f_8^+ f_{10}^+ + f_3^- f_4^- f_7^- f_1^+ f_6^+ f_{10}^+ + f_3^- f_4^- f_9^- f_1^+ f_6^+ f_8^+ + f_3^- f_4^- f_5^- f_7^- f_1^+ f_{10}^+ + f_3^- f_4^- f_5^- f_9^- f_1^+ f_8^+ + f_3^- f_4^- f_7^- f_9^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_8^+ f_{10}^+ + f_2^- f_5^- f_6^- f_4^+ f_8^+ f_{10}^+ + f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ + f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ + f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^+ + f_2^- f_5^- f_6^- f_7^- f_4^+ f_{10}^+ + f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ + f_2^- f_3^- f_5^- f_6^- f_7^- f_9^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_5^- f_6^- f_1^+ f_4^+ f_8^+ f_{10}^+ + f_3^- f_5^- f_6^- f_7^- f_9^- f_1^+ + f_5^- f_6^- f_7^- f_1^+ f_4^+ f_{10}^+ + f_3^- f_5^- f_6^- f_1^+ f_8^+ f_{10}^+ + f_3^- f_5^- f_6^- f_7^- f_1^+ f_{10}^+ + f_5^- f_6^- f_7^- f_9^- f_1^+ f_4^+ + f_5^- f_6^- f_9^- f_1^+ f_4^+ f_8^+ + f_3^- f_5^- f_6^- f_9^- f_1^+ f_8^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_9+E_{10})(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_{12}^- f_6^+ f_8^+ f_{10}^+ + f_3^- f_4^- f_5^- f_7^- f_9^- f_{12}^- + f_3^- f_4^- f_7^- f_9^- f_{12}^- f_6^+ + f_3^- f_4^- f_5^- f_7^- f_{12}^- f_{10}^+ + f_3^- f_4^- f_5^- f_{12}^- f_8^+ f_{10}^+ + f_3^- f_4^- f_7^- f_{12}^- f_6^+ f_{10}^+ + f_3^- f_4^- f_5^- f_9^- f_{12}^- f_8^+ + f_3^- f_4^- f_9^- f_{12}^- f_6^+ f_8^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_5^- f_6^- f_{12}^- f_4^+ f_8^+ f_{10}^+ + f_5^- f_6^- f_7^- f_{12}^- f_4^+ f_{10}^+ + f_3^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ + f_5^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ + f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+ + f_3^- f_5^- f_6^- f_7^- f_{12}^- f_{10}^+ + f_3^- f_5^- f_6^- f_7^- f_9^- f_{12}^- + f_3^- f_5^- f_6^- f_{12}^- f_8^+ f_{10}^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_9+E_{10})(-E_{12}+E_2)(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+ + f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^+ + f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- + f_2^- f_7^- f_8^- f_4^+ f_6^+ f_{10}^+ + f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ + f_2^- f_3^- f_7^- f_8^- f_6^+ f_{10}^+ + f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+ + f_2^- f_5^- f_7^- f_8^- f_4^+ f_{10}^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_7^- f_8^- f_9^- f_1^+ f_4^+ f_6^+ + f_7^- f_8^- f_1^+ f_4^+ f_6^+ f_{10}^+ + f_3^- f_5^- f_7^- f_8^- f_9^- f_1^+ + f_3^- f_7^- f_8^- f_9^- f_1^+ f_6^+ + f_5^- f_7^- f_8^- f_1^+ f_4^+ f_{10}^+ + f_5^- f_7^- f_8^- f_9^- f_1^+ f_4^+ + f_3^- f_7^- f_8^- f_1^+ f_6^+ f_{10}^+ + f_3^- f_5^- f_7^- f_8^- f_1^+ f_{10}^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_1+E_{12})} \\
\frac{+f_7^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ + f_7^- f_8^- f_{12}^- f_4^+ f_6^+ f_{10}^+ + f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^- + f_3^- f_7^- f_8^- f_{12}^- f_6^+ f_{10}^+ + f_5^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ + f_3^- f_7^- f_8^- f_9^- f_{12}^- f_6^+ + f_3^- f_5^- f_7^- f_8^- f_{12}^- f_{10}^+ + f_5^- f_7^- f_8^- f_{12}^- f_4^+ f_{10}^+}{(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_7-E_8+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- + f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_8^+ + f_2^- f_9^- f_{10}^- f_4^+ f_6^+ f_8^+ + f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ + f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ + f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_8^+ + f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ + f_2^- f_3^- f_5^- f_9^- f_{10}^- f_8^+}{(-E_9-E_{10}+E_1+E_2)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_5^- f_9^- f_{10}^- f_1^+ f_4^+ f_8^+ + f_3^- f_9^- f_{10}^- f_1^+ f_6^+ f_8^+ + f_9^- f_{10}^- f_1^+ f_4^+ f_6^+ f_8^+ + f_3^- f_7^- f_9^- f_{10}^- f_1^+ f_6^+ + f_7^- f_9^- f_{10}^- f_1^+ f_4^+ f_6^+ + f_5^- f_7^- f_9^- f_{10}^- f_1^+ f_4^+ + f_3^- f_5^- f_9^- f_{10}^- f_1^+ f_8^+ + f_3^- f_5^- f_7^- f_9^- f_{10}^- f_1^+}{(-E_9-E_{10}+E_1+E_2)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_1+E_{12})} \\
\frac{+f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+ + f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ + f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- + f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ + f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ f_8^+ + f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_{12}+E_2)(-E_9-E_{10}+E_1+E_{12})} \\
\frac{+f_1^- f_{12}^- f_4^+ f_6^+ f_8^+ f_{10}^+ + f_1^- f_3^- f_7^- f_9^- f_{12}^- f_6^+ + f_1^- f_3^- f_5^- f_7^- f_9^- f_{12}^- + f_1^- f_7^- f_9^- f_{12}^- f_4^+ f_6^+ + f_1^- f_5^- f_7^- f_9^- f_{12}^- f_4^+ + f_1^- f_9^- f_{12}^- f_4^+ f_6^+ f_8^+ + f_1^- f_5^- f_7^- f_{12}^- f_4^+ f_{10}^+ + f_1^- f_7^- f_{12}^- f_4^+ f_6^+ f_{10}^+ + f_1^- f_3^- f_5^- f_{12}^- f_8^+ f_{10}^+ + f_1^- f_3^- f_5^- f_9^- f_{12}^- f_8^+ + f_1^- f_3^- f_5^- f_7^- f_{12}^- f_{10}^+ + f_1^- f_3^- f_{12}^- f_6^+ f_8^+ f_{10}^+ + f_1^- f_3^- f_9^- f_{12}^- f_6^+ f_8^+ + f_1^- f_5^- f_9^- f_{12}^- f_4^+ f_8^+ + f_1^- f_5^- f_{12}^- f_4^+ f_8^+ f_{10}^+ + f_1^- f_3^- f_7^- f_{12}^- f_6^+ f_{10}^+}{(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_6)(-E_1-E_{12}+E_7+E_8)(-E_1-E_{12}+E_9+E_{10})}
\end{array}\right)$$

$$+\frac{1}{16}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,8\}\{7,8|V|1,10\}\{9,10|V|11,12\}\{11,12|V|9,2\} \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_7^- f_9^- f_{11}^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_{11}^- f_6^+ + f_1^- f_2^- f_5^- f_7^- f_9^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- f_8^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{11}^- + f_1^- f_2^- f_5^- f_9^- f_{11}^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_6^+ f_8^+ - f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_8^+ - f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_8^+ - f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_6^+ - f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_8^+ - f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- + f_1^- f_2^- f_3^- f_9^- f_6^+ f_8^+ f_{12}^+ + f_1^- f_2^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_8)(-E_2+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\underline{+f_3^- f_4^- f_7^- f_9^- f_{11}^- f_2^+ f_6^+ + f_3^- f_4^- f_5^- f_9^- f_{11}^- f_2^+ f_8^+ + f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^- f_2^+ - f_3^- f_4^- f_{11}^-} \\
\underline{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{11}^- f_8^+ + f_1^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^- + f_1^- f_3^- f_4^- f_7^- f_9^- f_{11}^- f_6^+ - f_1^- f_3^- f_4^- f_5} \\
\underline{+f_5^- f_6^- f_7^- f_9^- f_{11}^- f_2^+ f_4^+ + f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^- f_2^+ + f_3^- f_5^- f_6^- f_9^- f_2^+ f_8^+ f_{12}^+ - f_5^- f_6^- f_7^-} \\
\underline{+f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{12}^+ + f_1^- f_5^- f_6^- f_7^- f_9^- f_{11}^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_{11}^- f_8^+ + f_1^- f_3^- f_5^- f_6} \\
\underline{+f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^- f_{10}^+ + f_3^- f_4^- f_5^- f_9^- f_{11}^- f_8^+ f_{10}^+ + f_3^- f_4^- f_7^- f_9^- f_6^+ f_{10}^+ f_{12}^+ + f_3^- f_4^- f_5^- f_7^-} \\
\\
\underline{+f_3^- f_5^- f_6^- f_9^- f_{11}^- f_8^+ f_{10}^+ + f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^- f_{10}^+ + f_5^- f_6^- f_7^- f_9^- f_{11}^- f_4^+ f_{10}^+ + f_3^- f_5^- f_6^- f_9^-} \\
\\
\underline{+f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ f_4^+ f_6^+ - f_3^- f_5^- f_7^- f_8^- f_9^- f_2^+ f_{12}^+ + f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ f_4^+ - f_3^- f_5^- f_7^- f} \\
\underline{+f_1^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ - f_1^- f_5^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+ - f_1^- f_3^- f_7^- f_8^- f_9^- f_{11}^- f_6^+ - f_1^- f_5^- f_7^- f_8} \\
\underline{+f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_{10}^+ - f_5^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+ f_{12}^+ - f_3^- f_5^- f_7^- f_8^- f_9^- f_{11}^- f_{10}^+ - f_5^- f_7^- f_8^- f_9^-} \\
\\
\frac{+f_1^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^- f_6^+ + f_1^- f_5^- f_9^- f_{10}^- f_{11}^- f_4^+ f_8^+ + f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ f_{12}^+ + f_1^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ f_{12}^+ + f_1^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^- + f_1^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_3^- f_{10}^- f_{11}^- f_{12}^- f_6^+ f_8^+ - f_1^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_8^+ - f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+ - f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_1^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+ + f_1^- f_3^- f_9^- f_1}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_9-E_{10}+E_{11}+E_{12})}
\end{array}\right.$$

$$+\frac{1}{32}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|1,8\}\{7,8|V|9,10\}\{9,10|V|11,12\}\{11,12|V|7,2\}$$

$$\frac{+f_1^- f_2^- f_7^- f_4^+ f_6^+ f_{10}^+ f_{12}^+ +f_1^- f_2^- f_3^- f_7^- f_6^+ f_{10}^+ f_{12}^+ +f_1^- f_2^- f_7^- f_9^- f_4^+ f_6^+ f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^+ f_{12}^+ +f_1^- f_2^- f_5^- f_7^- f_4^+ f_{10}^+ f_{12}^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_{11}^- f_6^+ +f_1^- f_2^- f_7^- f_9^- f_{11}^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_6^+ f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{11}^- +f_1^- f_2^- f_5^- f_7^- f_9^- f_{11}^- f_4^+ +f_1^- f_2^- f_5^- f_7^- f_9^- f_4^+ f_{12}^+ +f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_6^+ f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{12}^+ +f_1^- f_2^- f_5^- f_7^- f_{11}^- f_4^+ f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{10}^+ +f_1^- f_2^- f_3^- f_7^- f}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_2-E_7+E_9+E_{10})(-E_2-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^+ +f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^- +f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^- f_6^+ +f_1^- f_2^- f_9^- f_{10}^- f}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_1^- f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- f_{12}^- +f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ f_6^+ +f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_{10}^+ +f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_2^- f_3^- f_{11}^- f}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_{11}-E_{12}+E_2+E_7)(-E_{11}-E_{12}+E_9+E_{10})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{10}^+ +f_2^- f_3^- f_4^- f_5^- f_7^- f_{10}^+ f_{12}^+ +f_2^- f_3^- f_4^- f_7^- f_6^+ f_{10}^+ f_{12}^+ +f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+ f_{12}^+ +f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^- +f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{12}^+ +f_2^- f_3^- f_4^- f_7^- f_{11}^- f_6^+ f_{10}^+ +f_2^- f_3^- f_4^- f_7^- f}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_2-E_7+E_9+E_{10})(-E_2-E_7+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ f_{12}^+ +f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+ f_{12}^+ +f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_2^+ f_6^+ +f_3^- f_4^- f_5^- f_9^- f_{10}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_1}$$

$$\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_2^+ f_6^+ f_{10}^+ +f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_2^+ f_{10}^+ +f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_2^+ +f_3^- f_4^- f_9^- f_{11}^- f_{12}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_{11}-E_{12}+E_2+E_7)(-E_{11}-E_{12}+E}$$

$$\frac{+f_3^- f_4^- f_7^- f_1^+ f_6^+ f_{10}^+ f_{12}^+ +f_3^- f_4^- f_5^- f_7^- f_1^+ f_{10}^+ f_{12}^+ +f_3^- f_4^- f_7^- f_9^- f_1^+ f_6^+ f_{12}^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^- f_1^+ +f_3^- f_4^- f_7^- f_9^- f_{11}^- f_1^+ f_6^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_1^+ f_{12}^+ +f_3^- f_4^- f_5^- f_7^- f_{11}^- f_1^+ f_{10}^+ +f_3^- f_4^- f_7^- f_{11}^- f}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_3-E_4-E_7+E_1+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^+ +f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_6^+ +f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_7)(-E_9-E_{10}+E_1}$$

$$\frac{+f_1^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_{10}^+ +f_1^- f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- +f_1^- f_3^- f_4^- f_{11}^- f_{12}^- f_6^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_1-E_{11}-E_{12}+E_3+E_4+E_7)(-E_{11}-E_{12}+E}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{10}^+ +f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{12}^+ +f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^+ f_{12}^+ +f_2^- f_5^- f_6^- f_7^- f_9^- f_{11}^- f_4^+ +f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^- +f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ f_{10}^+ +f_2^- f_5^- f_6^- f_7^- f_4^+ f_{10}^+ f_{12}^+ +f_2^- f_5^- f_6^- f_7^- f}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_2-E_7+E_9+E_{10})(-E_2-E_7+E_{11}+E_{12})}$$

$$\frac{+f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_2^+ f_4^+ +f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_2^+ +f_3^- f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_{12}^+ +f_5^- f_6^- f_9^- f_{10}^- f_2^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_1}$$

$$\frac{+f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_2^+ f_4^+ +f_5^- f_6^- f_{11}^- f_{12}^- f_2^+ f_4^+ f_{10}^+ +f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_2^+ +f_3^- f_5^- f_6^- f_{11}^- f_{12}}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_{11}-E_{12}+E_2+E_7)(-E_{11}-E_{12}+E}$$

$$\frac{+f_5^- f_6^- f_7^- f_{11}^- f_1^+ f_4^+ f_{10}^+ +f_3^- f_5^- f_6^- f_7^- f_1^+ f_{10}^+ f_{12}^+ +f_5^- f_6^- f_7^- f_9^- f_{11}^- f_1^+ f_4^+ +f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^- f_1^+ +f_3^- f_5^- f_6^- f_7^- f_9^- f_1^+ f_{12}^+ +f_3^- f_5^- f_6^- f_7^- f_{11}^- f_1^+ f_{10}^+ +f_5^- f_6^- f_7^- f_9^- f_1^+ f_4^+ f_{12}^+ +f_5^- f_6^- f_7^- f_1^+ f_4}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_9+E_{10})(-E_5-E_6-E_7+E_1+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- +f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+ +f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_9-E_{10}+E_5+E_6+E_7)(-E_9-E_{10}+E_1}$$

$$\frac{+f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ +f_1^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_{11}-E_{12}+E_5+E_6+E_7)(-E_{11}-E_{12}+E}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_{12}^+ +f_3^- f_4^- f_7^- f_8^- f_9^- f_{11}^- f_6^+ +f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_{11}^- +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_{10}^+ +f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{10}^+ +f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+ +f_3^- f_4^- f_7^- f_8^- f_6^+ f_{10}^+ f_{12}^+ +f_3^- f_4^- f_5^- f_7^- f}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_6^+ f_8^+ +f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+ f_{12}^+ +f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^- f_8^+ +f_3^- f_4^- f_5^- f_9^- f_{10}}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_1}$$

$$\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_6^+ f_8^+ f_{10}^+ +f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_6^+ f_8^+ +f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_8^+ +f_3^- f_4^- f_5^- f_{11}^- f_{12}}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_{11}-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E}$$

$$\frac{+f_5^- f_6^- f_7^- f_8^- f_9^- f_{11}^- f_4^+ +f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- f_{11}^- +f_5^- f_6^- f_7^- f_8^- f_4^+ f_{10}^+ f_{12}^+ +f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+ +f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- f_{12}^+ +f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+ +f_3^- f_5^- f_6^- f_7^- f_8^- f_{10}^+ f_{12}^+ +f_5^- f_6^- f_7^- f_8^- f}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_{11}+E_{12})}$$

$$\frac{+f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ f_{12}^+ +f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ f_{12}^+ +f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^- f_8^+ +f_5^- f_6^- f_9^- f_{10}^- f_1}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_1}$$

$$\frac{+f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+ f_{10}^+ +f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ +f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ f_8^+ +f_3^- f_5^- f_6^- f_{11}^- f_{12}}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_{11}-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E}$$

$$\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^- f_6^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^- +f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_9-E_{10}+E_2+E_7)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_1}$$

$$\frac{+f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^+ +f_5^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ +f_5^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^-}{(-E_5-E_6+E_3+E_4)(-E_9-E_{10}+E_2+E_7)(-E_5-E_6-E_7+E_1+E_9+E_{10})(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_1}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_{10}^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- +f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_6^+ +f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ f_{10}^+}{(-E_3-E_4+E_5+E_6)(-E_{11}-E_{12}+E_2+E_7)(-E_3-E_4-E_7+E_1+E_{11}+E_{12})(-E_{11}-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E}$$

$$\frac{+f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_5^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ +f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- +f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_{10}^+}{(-E_5-E_6+E_3+E_4)(-E_{11}-E_{12}+E_2+E_7)(-E_5-E_6-E_7+E_1+E_{11}+E_{12})(-E_{11}-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E}$$

$$\frac{+f_1^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^+ +f_1^- f_5^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+ +f_1^- f_3^- f_7^- f_8^- f_9^- f_{11}^- f_6^+ +f_1^- f_7^- f_8^- f_9^- f_{11}^- f_4^+ f_6^+ +f_1^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ f_{10}^+ +f_1^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{10}^+ +f_1^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ f_{10}^+ +f_1^- f_5^- f_7^- f_8^- f_9^- f_{11}^- f_4^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{11}^- +f_1^- f_7^- f_8^- f_4^+ f_6^+ f_{10}^+ f_{12}^+ +f_1^- f_3^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^+ f_{12}^+ +f_1^- f_7^- f_8^- f_9^- f_4^+ f_6^+ f_{12}^+ +f_1^- f_3^- f_7^- f_8^- f_6^+ f_{10}^+ f_{12}^+ +f_1^- f_5^- f_7^- f_8^- f_4}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_8^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_1^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+ f_{12}^+ +f_1^- f_3^- f_8^- f_9^- f_{10}^- f_{11}^- f_6^+ +f_1^- f_8^- f_9^- f_{10}^- f_{11}^- f_4^+ f_6^+ +f_1^- f_3^- f_5^- f_8^- f_9^- f_{10}^- f_{11}^- +f_1^- f_5^- f_8^- f_9^- f_{10}^- f_{11}^- f_4^+ +f_1^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_3^- f_5^- f_8^- f}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ +f_1^- f_3^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- +f_1^- f_8^- f_9^- f_{11}^- f_{12}^- f_4^+ f_6^+ +f_1^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_{10}^+ +f_1^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_1^- f_3^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ +f_1^- f_3^- f_8^- f_9^- f}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_{11}-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_9+E_{10})}$$

$$\frac{+f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^- f_7^+ +f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_7^+ f_{12}^+ +f_1^- f_5^- f_9^- f_{10}^- f_{11}^- f_4^+ f_7^+ +f_1^- f_3^- f_9^- f_{10}^- f_6^+ f_7^+ f_{12}^+ +f_1^- f_3^- f_9^- f_{10}^- f_{11}^- f_6^+ f_7^+ +f_1^- f_9^- f_{10}^- f_{11}^- f_4^+ f_6^+ f_7^+ +f_1^- f_3^- f_5^- f_9^- f_{10}^- f_7^+ f_{12}^+ +f_1^- f_9^- f_{10}^- f_4^+ f}{(-E_9-E_{10}+E_2+E_7)(-E_1-E_9-E_{10}+E_3+E_4+E_7)(-E_1-E_9-E_{10}+E_5+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_9^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_7^+ +f_1^- f_5^- f_9^- f_{11}^- f_{12}^- f_4^+ f_7^+ +f_1^- f_3^- f_5^- f_{11}^- f_{12}^- f_7^+ f_{10}^+ +f_1^- f_5^- f_{11}^- f_{12}^- f_4^+ f_7^+ f_{10}^+ +f_1^- f_3^- f_{11}^- f_{12}^- f_6^+ f_7^+ f_{10}^+ +f_1^- f_3^- f_9^- f_{11}^- f_{12}^- f_6^+ f_7^+ +f_1^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_7^+ f_{10}^+ +f_1^- f_3^- f_5^- f_9^- f}{(-E_{11}-E_{12}+E_2+E_7)(-E_1-E_{11}-E_{12}+E_3+E_4+E_7)(-E_1-E_{11}-E_{12}+E_5+E_6+E_7)(-E_{11}-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_9+E_{10})}$$

$$-\frac{1}{384}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,8\}\{7,8|V|9,10\}\{9,10|V|11,12\}\{11,12|V|1,2\}$$

$$\frac{+f_1^- f_2^- f_3^- f_9^- f_{11}^- f_6^+ f_8^+ +f_1^- f_2^- f_3^- f_7^- f_{11}^- f_6^+ f_{10}^+ +f_1^- f_2^- f_5^- f_9^- f_{11}^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{10}^+ +f_1^- f_2^- f_5^- f_7^- f_{11}^- f_4^+ f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- f_8^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_{11}^- f_6^+ +f_1^- f_2^- f_7^- f_9^- f_{11}^- f_4^+ f_6^+ +f_1^- f_2^- f_5^- f_7^- f_9^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{11}^- +f_1^- f_2^- f_5^- f_7^- f_9^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_6^+ f_{12}^+ +f_1^- f_2^- f_9^- f_4^+ f_6^+ f_8^+ f_{12}^+ +f_1^- f_2^- f_3^- f_9^- f_6^+ f_8^+ f_{12}^+ +f_1^- f_2^- f_3^- f_6^+ f_8^+ f_{10}^+ f_{12}^+ +f_1^- f_2^- f_3^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6}$$

$$\frac{+f_3^- f_4^- f_7^- f_9^- f_{11}^- f_2^+ f_6^+ +f_1^- f_3^- f_4^- f_7^- f_{11}^- f_6^+ f_{10}^+ +f_3^- f_4^- f_5^- f_9^- f_{11}^- f_2^+ f_8^+ +f_1^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{10}^+ +f_1^- f_3^- f_4^- f_7^- f_9^- f_{11}^- f_6^+ +f_3^- f_4^- f_9^- f_{11}^- f_2^+ f_6^+ f_8^+ +f_1^- f_3^- f_4^- f_5^- f_{11}^- f_8^+ f_{10}^+ +f_3^- f_4^- f_5^- f_7^- f_{11}^- f_2^+ f_{10}^+ +f_1^- f_3^- f_4^- f_5^- f_9^- f_{11}^- f_8^+ +f_1^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^- +f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^- f_2^+ +f_3^- f_4^- f_7^- f_9^- f_2^+ f_6^+ f_{12}^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_2^+ f_{12}^+ +f_1^- f_3^- f_4^- f_5^- f_9^- f_8^+ f_{12}^+ +f_3^- f_4^- f_5^- f_9^- f_2^+ f_8^+ f_{12}^+ +f_1^- f_3^- f_4^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6}$$

$$\frac{+f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^- f_2^+ +f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^- +f_5^- f_6^- f_7^- f_9^- f_{11}^- f_2^+ f_4^+ +f_1^- f_5^- f_6^- f_7^- f_9^- f_{11}^- f_4^+ +f_5^- f_6^- f_7^- f_{11}^- f_2^+ f_4^+ f_{10}^+ +f_1^- f_5^- f_6^- f_7^- f_9^- f_4^+ f_{12}^+ +f_5^- f_6^- f_{11}^- f_2^+ f_4^+ f_8^+ f_{10}^+ +f_3^- f_5^- f_6^- f_7^- f_9^- f_2^+ f_{12}^+ +f_1^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{10}^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_8^+ f_{12}^+ +f_5^- f_6^- f_7^- f_9^- f_2^+ f_4^+ f_{12}^+ +f_1^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ f_{10}^+ +f_3^- f_5^- f_6^- f_7^- f_{11}^- f_2^+ f_{10}^+ +f_5^- f_6^- f_9^- f_{11}^- f_2^+ f_4^+ f_8^+ +f_3^- f_5^- f_6^- f_9^- f_{11}^- f_2^+ f_8^+ +f_3^- f_5^- f_6^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4}$$

$$\frac{+f_3^- f_5^- f_7^- f_8^- f_9^- f_2^+ f_{12}^+ +f_1^- f_3^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+ +f_1^- f_5^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+ +f_7^- f_8^- f_2^+ f_4^+ f_6^+ f_{10}^+ f_{12}^+ +f_1^- f_3^- f_7^- f_8^- f_6^+ f_{10}^+ f_{12}^+ +f_5^- f_7^- f_8^- f_9^- f_2^+ f_4^+ f_{12}^+ +f_3^- f_7^- f_8^- f_9^- f_2^+ f_6^+ f_{12}^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^+ f_{12}^+ +f_1^- f_5^- f_7^- f_8^- f_4^+ f_{10}^+ f_{12}^+ +f_7^- f_8^- f_9^- f_2^+ f_4^+ f_6^+ f_{12}^+ +f_3^- f_7^- f_8^- f_2^+ f_6^+ f_{10}^+ f_{12}^+ +f_3^- f_7^- f_8^- f_{11}^- f_2^+ f_6^+ f_{10}^+ +f_5^- f_7^- f_8^- f_{11}^- f_2^+ f_4^+ f_{10}^+ +f_7^- f_8^- f_{11}^- f_2^+ f_4^+ f_6^+ f_{10}^+ +f_3^- f_5^- f_7^- f_8^- f_2^+ f_{10}^+ f_{12}^+ +f_1^- f_7^- f_8^-}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4}$$

$$\frac{+f_1^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^- +f_7^- f_9^- f_{10}^- f_{11}^- f_2^+ f_4^+ f_6^+ +f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^- f_2^+ +f_3^- f_7^- f_9^- f_{10}^- f_{11}^- f_2^+ f_6^+ +f_1^- f_9^- f_{10}^- f_{11}^- f_4^+ f_6^+ f_8^+ +f_1^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^+ +f_1^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ f_{12}^+ +f_3^- f_9^- f_{10}^- f_{11}^- f_2^+ f_6^+ f_8^+ +f_1^- f_3^- f_5^- f_9^- f_{10}^- f_8^+ f_{12}^+ +f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_8^+ f_{12}^+ +f_1^- f_3^- f_9^- f_{10}^- f_{11}^- f_6^+ f_8^+ +f_3^- f_5^- f_9^- f_{10}^- f_{11}^- f_2^+ f_8^+ +f_1^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^- f_8^+ +f_1^- f_5^- f_9^-}{(-E_9-E_{10}+E_1+E_2)(-E_9-E_{10}+E_3+E_4}$$

$$\frac{+f_3^- f_7^- f_{11}^- f_{12}^- f_2^+ f_6^+ f_{10}^+ +f_7^- f_{11}^- f_{12}^- f_2^+ f_4^+ f_6^+ f_{10}^+ +f_5^- f_7^- f_9^- f_{11}^- f_{12}^- f_2^+ f_4^+ +f_{11}^- f_{12}^- f_2^+ f_4^+ f_6^+ f_8^+ f_{10}^+ +f_5^- f_{11}^- f_{12}^- f_2^+ f_4^+ f_8^+ f_{10}^+ +f_3^- f_5^- f_9^- f_{11}^- f_{12}^- f_2^+ f_8^+ +f_7^- f_9^- f_{11}^- f_{12}^- f_2^+ f_4^+ f_6^+ +f_5^- f_9^- f_{11}^- f_{12}^- f_2^+ f_4^+ f_8^+ +f_9^- f_{11}^- f_{12}^- f_2^+ f_4^+ f_6^+ f_8^+ +f_3^- f_5^- f_{11}^- f_{12}^- f_2^+ f_8^+ f_{10}^+ +f_3^- f_{11}^- f_{12}^- f_2^+ f_6^+ f_8^+ f_{10}^+ +f_3^- f_5^- f_7^- f_{11}^- f_{12}^- f_2^+ f_{10}^+ +f_3^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- f_2^+ +f_3^- f_9^- f_{11}^- f_{12}^- f_2^+ f_6^+ f_8^+ +f_3^- f_7^- f_9^- f_{11}^- f_{12}^- f_2^+ f_6^+ +f_1^- f_3^- f_5^- f_7^-}{(-E_{11}-E_{12}+E_1+E_2)(-E_{11}-E_{12}+E_3+E_4)(}$$

$$-\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|1,8\}\{7,8|V|9,12\}\{9,10|V|7,2\}\{11,12|V|11,10\}f_{11}^{-}\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_7^- f_6^+ f_9^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_9^+ + f_1^- f_2^- f_7^- f_4^+ f_6^+ f_9^+ + f_1^- f_2^- f_5^- f_7^- f_4^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_2-E_7+E_9+E_{10})(-E_2-E_7+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- - f_1^- f_2^- f_5^- f_7^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_6^+ - f_1^- f_2^- f_7^- f_{10}^- f_4^+ f_6^+ + f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ + f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_9-E_{10}+E_2+E_7)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{12}^- f_4^+ f_6^+ + f_1^- f_2^- f_5^- f_9^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_9^- f_{12}^- f_6^+ - f_1^- f_2^- f_7^- f_{12}^- f_4^+ f_6^+ - f_1^- f_2^- f_3^- f_7^- f_{12}^- f_6^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_7^- f_{12}^- - f_1^- f_2^- f_5^- f_7^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_2+E_8)(-E_9-E_{12}+E_2+E_7)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_2^+ f_9^+ + f_3^- f_4^- f_7^- f_2^+ f_6^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_2-E_7+E_9+E_{10})(-E_2-E_7+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_2^+ - f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+ + f_3^- f_4^- f_7^- f_{10}^- f_2^+ f_6^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_2-E_7+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_2^+ f_6^+ + f_3^- f_4^- f_5^- f_9^- f_{12}^- f_2^+ - f_3^- f_4^- f_7^- f_{12}^- f_2^+ f_6^+ - f_3^- f_4^- f_5^- f_7^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_2+E_8)(-E_9-E_{12}+E_2+E_7)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_9^+ + f_1^- f_3^- f_4^- f_7^- f_6^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_3-E_4-E_7+E_1+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_{10}^- - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ + f_1^- f_3^- f_4^- f_7^- f_{10}^- f_6^+ - f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{12}^- f_6^+ + f_1^- f_3^- f_4^- f_5^- f_9^- f_{12}^- - f_1^- f_3^- f_4^- f_5^- f_7^- f_{12}^- - f_1^- f_3^- f_4^- f_7^- f_{12}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_1+E_8)(-E_1-E_9-E_{12}+E_3+E_4+E_7)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_2^+ f_9^+ + f_5^- f_6^- f_7^- f_2^+ f_4^+ f_9^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_2-E_7+E_9+E_{10})(-E_2-E_7+E_9+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{10}^- f_2^+ + f_5^- f_6^- f_7^- f_{10}^- f_2^+ f_4^+ - f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_4^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^- f_2^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_2-E_7+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{12}^- f_2^+ f_4^+ + f_3^- f_5^- f_6^- f_9^- f_{12}^- f_2^+ - f_3^- f_5^- f_6^- f_7^- f_{12}^- f_2^+ - f_5^- f_6^- f_7^- f_{12}^- f_2^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_2+E_8)(-E_9-E_{12}+E_2+E_7)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_5^- f_6^- f_7^- f_4^+ f_9^+ + f_1^- f_3^- f_5^- f_6^- f_7^- f_9^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_9+E_{10})(-E_5-E_6-E_7+E_1+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- + f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_7^- f_{10}^- - f_1^- f_5^- f_6^- f_7^- f_{10}^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_9-E_{10}+E_5+E_6+E_7)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ - f_1^- f_5^- f_6^- f_7^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_7^- f_{12}^- + f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_9-E_{12}+E_5+E_6+E_7)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^+ f_9^+ + f_3^- f_4^- f_7^- f_6^+ f_8^+ f_9^+}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+ + f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ - f_3^- f_4^- f_5^- f_7^- f_{10}^- f_8^+ - f_3^- f_4^- f_7^- f_{10}^- f_6^+ f_8^+}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{12}^- f_8^+ + f_3^- f_4^- f_7^- f_{12}^- f_6^+ f_8^+ - f_3^- f_4^- f_9^- f_{12}^- f_6^+ f_8^+ - f_3^- f_4^- f_5^- f_9^- f_{12}^- f_8^+}{(-E_3-E_4+E_5+E_6)(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_7-E_8+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_5^- f_6^- f_7^- f_4^+ f_8^+ f_9^+ + f_3^- f_5^- f_6^- f_7^- f_8^+ f_9^+}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ - f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_8^+ - f_3^- f_5^- f_6^- f_7^- f_{10}^- f_8^+ + f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+ + f_3^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ - f_3^- f_5^- f_6^- f_7^- f_{12}^- f_8^+ - f_5^- f_6^- f_7^- f_{12}^- f_4^+ f_8^+}{(-E_5-E_6+E_3+E_4)(-E_8+E_2)(-E_5-E_6+E_1+E_8)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_6^+ f_9^+ f_{10}^+ + f_3^- f_4^- f_5^- f_7^- f_9^+ f_{10}^+}{(-E_3-E_4+E_5+E_6)(-E_9-E_{10}+E_2+E_7)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_4^+ f_9^+ f_{10}^+ + f_3^- f_5^- f_6^- f_7^- f_9^+ f_{10}^+}{(-E_5-E_6+E_3+E_4)(-E_9-E_{10}+E_2+E_7)(-E_5-E_6-E_7+E_1+E_9+E_{10})(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_9^+ f_{12}^+ + f_3^- f_4^- f_7^- f_6^+ f_9^+ f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_9-E_{12}+E_2+E_7)(-E_3-E_4-E_7+E_1+E_9+E_{12})(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_9^+ f_{12}^+ + f_5^- f_6^- f_7^- f_4^+ f_9^+ f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_9-E_{12}+E_2+E_7)(-E_5-E_6-E_7+E_1+E_9+E_{12})(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_5^- f_7^- f_8^- f_4^+ f_9^+ + f_1^- f_3^- f_7^- f_8^- f_6^+ f_9^+ + f_1^- f_7^- f_8^- f_4^+ f_6^+ f_9^+ + f_1^- f_3^- f_5^- f_7^- f_8^- f_9^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+ + f_1^- f_3^- f_8^- f_9^- f_{10}^- f_6^+ - f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+ - f_1^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ - f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^- - f_1^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ + f_1^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ + f_1^- f_3^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_7^- f_8^- f_{12}^- f_4^+ f_6^+ + f_1^- f_5^- f_7^- f_8^- f_{12}^- f_4^+ + f_1^- f_3^- f_5^- f_7^- f_8^- f_{12}^- + f_1^- f_3^- f_7^- f_8^- f_{12}^- f_6^+ - f_1^- f_5^- f_8^- f_9^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_8^- f_9^- f_{12}^- - f_1^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ - f_1^- f_3^- f_8^- f_9^- f_{12}^- f_6^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_9^- f_{10}^- f_7^+ + f_1^- f_9^- f_{10}^- f_4^+ f_6^+ f_7^+ + f_1^- f_3^- f_9^- f_{10}^- f_6^+ f_7^+ + f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_7^+}{(-E_9-E_{10}+E_2+E_7)(-E_1-E_9-E_{10}+E_3+E_4+E_7)(-E_1-E_9-E_{10}+E_5+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_9^- f_{12}^- f_4^+ f_6^+ f_7^+ + f_1^- f_5^- f_9^- f_{12}^- f_4^+ f_7^+ + f_1^- f_3^- f_9^- f_{12}^- f_6^+ f_7^+ + f_1^- f_3^- f_5^- f_9^- f_{12}^- f_7^+}{(-E_9-E_{12}+E_2+E_7)(-E_1-E_9-E_{12}+E_3+E_4+E_7)(-E_1-E_9-E_{12}+E_5+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}
\end{array}\right)$$

$$-\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,10\}\{7,8|V|9,8\}\{9,10|V|1,12\}\{11,12|V|11,2\}f_8^- f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_7^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_5^- f_7^- +f_1^- f_2^- f_5^- f_7^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_7+E_9)(-E_1-E_2+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_6^+ +f_1^- f_2^- f_3^- f_5^- f_9^- +f_1^- f_2^- f_5^- f_9^- f_4^+ +f_1^- f_2^- f_9^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_9+E_7)(-E_1-E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^+ f_{10}^+ +f_1^- f_2^- f_3^- f_5^- f_{10}^+ +f_1^- f_2^- f_5^- f_4^+ f_{10}^+ +f_1^- f_2^- f_4^+ f_6^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_{10})(-E_1-E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_1^+ f_6^+ +f_3^- f_4^- f_5^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_7+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_6^+ +f_2^- f_3^- f_4^- f_5^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_6^+ +f_3^- f_4^- f_5^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^+ f_{10}^+ +f_2^- f_3^- f_4^- f_5^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_3-E_4+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_1^+ f_6^+ f_{10}^+ +f_3^- f_4^- f_5^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- +f_2^- f_5^- f_6^- f_7^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_7+E_9)(-E_5-E_6+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_1^+ f_4^+ +f_3^- f_5^- f_6^- f_7^- f_1^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_7+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- +f_2^- f_5^- f_6^- f_9^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_9+E_7)(-E_5-E_6+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_1^+ +f_5^- f_6^- f_9^- f_1^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_9+E_7)(-E_5-E_6+E_9+E_{10})(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{10}^+ +f_2^- f_5^- f_6^- f_4^+ f_{10}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_5^- f_6^- f_1^+ f_4^+ f_{10}^+ +f_3^- f_5^- f_6^- f_1^+ f_{10}^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_9+E_{10})(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_6^+ +f_3^- f_4^- f_5^- f_7^- f_{12}^-}{(-E_3-E_4+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_7+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_{12}^- f_4^+ +f_3^- f_5^- f_6^- f_7^- f_{12}^-}{(-E_5-E_6+E_3+E_4)(-E_7+E_9)(-E_5-E_6+E_7+E_{10})(-E_{12}+E_2)(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_6^+ +f_3^- f_4^- f_5^- f_9^- f_{12}^-}{(-E_3-E_4+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_9+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{12}^- +f_5^- f_6^- f_9^- f_{12}^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_9+E_7)(-E_5-E_6+E_9+E_{10})(-E_{12}+E_2)(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{12}^- f_{10}^+ +f_3^- f_4^- f_{12}^- f_6^+ f_{10}^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{10})(-E_3-E_4+E_9+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_5^- f_6^- f_{12}^- f_4^+ f_{10}^+ +f_3^- f_5^- f_6^- f_{12}^- f_{10}^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_9+E_{10})(-E_{12}+E_2)(-E_5-E_6+E_1+E_{12})} \\
\frac{+f_2^- f_7^- f_{10}^- f_4^+ f_6^+ +f_2^- f_3^- f_7^- f_{10}^- f_6^+ +f_2^- f_3^- f_5^- f_7^- f_{10}^- +f_2^- f_5^- f_7^- f_{10}^- f_4^+}{(-E_7+E_9)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_2+E_{12})} \\
\frac{+f_5^- f_7^- f_{10}^- f_1^+ f_4^+ +f_7^- f_{10}^- f_1^+ f_4^+ f_6^+ +f_3^- f_5^- f_7^- f_{10}^- f_1^+ +f_3^- f_7^- f_{10}^- f_1^+ f_6^+}{(-E_7+E_9)(-E_7-E_{10}+E_1+E_2)(-E_7-E_{10}+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_1+E_{12})} \\
\frac{+f_3^- f_7^- f_{10}^- f_{12}^- f_6^+ +f_7^- f_{10}^- f_{12}^- f_4^+ f_6^+ +f_3^- f_5^- f_7^- f_{10}^- f_{12}^- +f_5^- f_7^- f_{10}^- f_{12}^- f_4^+}{(-E_7+E_9)(-E_7-E_{10}+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_{12}+E_2)(-E_7-E_{10}+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_9^- f_{10}^- +f_2^- f_5^- f_9^- f_{10}^- f_4^+ +f_2^- f_3^- f_9^- f_{10}^- f_6^+ +f_2^- f_9^- f_{10}^- f_4^+ f_6^+}{(-E_9+E_7)(-E_9-E_{10}+E_1+E_2)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_6)(-E_2+E_{12})} \\
\frac{+f_9^- f_{10}^- f_1^+ f_4^+ f_6^+ +f_5^- f_9^- f_{10}^- f_1^+ f_4^+ +f_3^- f_9^- f_{10}^- f_1^+ f_6^+ +f_3^- f_5^- f_9^- f_{10}^- f_1^+}{(-E_9+E_7)(-E_9-E_{10}+E_1+E_2)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_6)(-E_9-E_{10}+E_1+E_{12})} \\
\frac{+f_3^- f_5^- f_9^- f_{10}^- f_{12}^- +f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ +f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ +f_3^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_9+E_7)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_6)(-E_{12}+E_2)(-E_9-E_{10}+E_1+E_{12})} \\
\frac{+f_1^- f_7^- f_{12}^- f_4^+ f_6^+ +f_1^- f_3^- f_5^- f_7^- f_{12}^- +f_1^- f_3^- f_7^- f_{12}^- f_6^+ +f_1^- f_5^- f_7^- f_{12}^- f_4^+}{(-E_7+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_6)(-E_1-E_{12}+E_7+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_9^- f_{12}^- +f_1^- f_9^- f_{12}^- f_4^+ f_6^+ +f_1^- f_3^- f_9^- f_{12}^- f_6^+ +f_1^- f_5^- f_9^- f_{12}^- f_4^+}{(-E_9+E_7)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_6)(-E_1-E_{12}+E_9+E_{10})} \\
\frac{+f_1^- f_{12}^- f_4^+ f_6^+ f_{10}^+ +f_1^- f_3^- f_{12}^- f_6^+ f_{10}^+ +f_1^- f_3^- f_5^- f_{12}^- f_{10}^+ +f_1^- f_5^- f_{12}^- f_4^+ f_{10}^+}{(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_6)(-E_1-E_{12}+E_7+E_{10})(-E_1-E_{12}+E_9+E_{10})}
\end{array} \right)$$

$$-\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|5,6\}\{5,6|V|7,12\}\{7,8|V|1,10\}\{9,10|V|11,8\}\{11,12|V|9,2\}\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+ -f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- +f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ +f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_6^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- -f_1^- f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ -f_1^- f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- -f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ -f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ +f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+ +f_1^- f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ +f_1^- f_2^- f_3^- f_5^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_1-E_{11}+E_7+E_9)(-E_1-E_2+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_8^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_8^+ +f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_8^+ -f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ f_8^+ -f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_8^+ -f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_6^+ f_8^+ +f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ f_8^+ -f_1^- f_2^- f_{10}^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_{11}^- f_6^+ f_9^+ +f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+ f_9^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_9^+ -f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_6^+ f_9^+ -f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_6^+ f_9^+ -f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ f_9^+ -f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_9^+ +f_1^- f_2^- f_8^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_{11}+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^+ +f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_6^+ f_{12}^+ +f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^+ +f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_6^+ f_{12}^+ -f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+ f_{12}^+ -f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_6^+ f_{12}^+ -f_1^- f_2^- f_3^- f_8^- f_{11}^- f_6^+ f_{12}^+ -f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ f_{12}^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^+ +f_1^- f_2^- f_8^- f_9^- f_4^+ f_6^+ f_{12}^+ -f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{12}^+ +f_1^- f_2^- f_3^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_8)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- -f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ +f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+ -f_1^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- -f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- -f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ +f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ +f_1^- f_3^- f_4^- f_5^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_1-E_{11}+E_7+E_9)(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ -f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_8^+ +f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+ -f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_6^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4-E_8+E_1+E} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_2^+ f_6^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_6^+ +f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_2^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_2^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_6^+ +f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_6^+ -f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_2^+ +f_3^- f_4^- f_5^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_3-E_4-E_{11}+E_2+E_7+E_9)(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ f_8^+ -f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ f_8^+ -f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_6^+ f_8^+ +f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_8+E} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_9^+ -f_1^- f_3^- f_4^- f_8^- f_{11}^- f_6^+ f_9^+ +f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_6^+ f_9^+ -f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1-E_{11}+E_7+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4-E_9+E_1+E} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ f_9^+ +f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_6^+ f_9^+ -f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_6^+ f_9^+ -f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4-E_{11}+E_2+E_7+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_9+E} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ f_{12}^+ +f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_6^+ f_{12}^+ -f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ f_{12}^+ -f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_6^+ f_{12}^+ -f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+ f_{12}^+ -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ f_{12}^+ +f_3^- f_4^- f_8^- f_9^- f_2^+ f_6^+ f_{12}^+ +f_3^- f_4^- f_5^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_8)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^+ +f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_6^+ f_{12}^+ -f_1^- f_3^- f_4^- f_8^- f_{11}^- f_6^+ f_{12}^+ -f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^+ -f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_1^- f_3^- f_4^- f_8^- f_9^- f_6^+ f_{12}^+ -f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^+ +f_1^- f_3^- f_4^- f_5^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_{12})(-E_1-E_{10}-E_{12}+E_3+E_4+E_8)(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- -f_1^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ -f_1^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- +f_1^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- +f_1^- f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+ +f_1^- f_3^- f_5^- f_6^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1-E_{10}+E_7+E_8)(-E_1-E_{11}+E_7+E_9)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_8^+ +f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+ -f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ -f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1-E_{10}+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_6-E_8+E_1+E} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_2^+ -f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_2^+ -f_5^- f_6^- f_7^- f_8^- f_{11}^- f_2^+ f_4^+ +f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_2^+ f_4^+ -f_5^- f_6^- f_7^- f_9^- f_{10}^- f_2^+ f_4^+ -f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_2^+ +f_5^- f_6^- f_7^- f_8^- f_9^- f_2^+ f_4^+ +f_3^- f_5^- f_6^- f_7^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{10}+E_2+E_7+E_8)(-E_5-E_6-E_{11}+E_2+E_7+E_9)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_2^+ f_8^+ -f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_4^+ f_8^+ -f_3^- f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_8^+ +f_5^- f_6^- f_{10}^- f_{11}^- f_2^+ f_4^+ f_8^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{10}+E_2+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_8+E} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_9^+ -f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_9^+ -f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_9^+ +f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_9^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1-E_{11}+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_6-E_9+E_1+E} \\
\frac{+f_5^- f_6^- f_{10}^- f_{11}^- f_2^+ f_4^+ f_9^+ +f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_2^+ f_9^+ -f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_4^+ f_9^+ -f_3^- f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_9^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6-E_{11}+E_2+E_7+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_9+E} \\
\frac{+f_5^- f_6^- f_{10}^- f_{11}^- f_2^+ f_4^+ f_{12}^+ -f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_4^+ f_{12}^+ -f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_4^+ f_{12}^+ -f_3^- f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_{12}^+ -f_3^- f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_{12}^+ +f_5^- f_6^- f_8^- f_9^- f_2^+ f_4^+ f_{12}^+ +f_3^- f_5^- f_6^- f_8^- f_9^- f_2^+ f_{12}^+ +f_3^- f_5^- f_6^- f_{10}^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_8)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+ +f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_{12}^+ +f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+ -f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ -f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ f_{12}^+ -f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_{12}^+ -f_1^- f_3^- f_5^- f_6^-}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_6-E_8+E_1+E_{10}+E_{12})(-E_1-E_{11}-E_{12}+E_5+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{10}^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_{10}^+ +f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+ -f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+ +f_5^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ -f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- f_{10}^+}{(-E_5-E_6+E_3+E_4)(-E_7-E_8+E_1+E_{10})(-E_5-E_6-E_{10}+E_2+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_6+E} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_{11}^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{11}^+}{(-E_3-E_4+E_5+E_6)(-E_7-E_9+E_1+E_{11})(-E_3-E_4-E_{11}+E_2+E_7+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- f_{11}^+ +f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{11}^+ -f_5^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ -f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_5-E_6+E_3+E_4)(-E_7-E_9+E_1+E_{11})(-E_5-E_6-E_{11}+E_2+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_6+E} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_6^+ f_{10}^+ f_{12}^+ -f_3^- f_4^- f_8^- f_{11}^- f_6^+ f_{10}^+ f_{12}^+ -f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{10}^+ f_{12}^+ +f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^+ f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_8)(-E_3-E_4-E_8+E_1+E} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_{11}^+ f_{12}^+ +f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^+ f_{12}^+ -f_3^- f_4^- f_8^- f_9^- f_6^+ f_{11}^+ f_{12}^+ -f_3^- f_4^- f_5^- f_8^- f_9^- f_{11}^+ f_{12}^+}{(-E_3-E_4+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_7+E_{12})(-E_{11}-E_{12}+E_2+E_9)(-E_3-E_4-E_9+E_1+E} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^+ f_{12}^+ +f_5^- f_6^- f_8^- f_9^- f_4^+ f_{10}^+ f_{12}^+ -f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_{10}^+ f_{12}^+ -f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+ f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_6+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_8)(-E_5-E_6-E_8+E_1+E} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_9^- f_{11}^+ f_{12}^+ +f_5^- f_6^- f_8^- f_9^- f_4^+ f_{11}^+ f_{12}^+ -f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{11}^+ f_{12}^+ -f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+ f_{12}^+}{(-E_5-E_6+E_3+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_2+E_9)(-E_5-E_6-E_9+E_1+E} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{10}^+ -f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ +f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+ +f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+ f_{10}^+ +f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+ f_{10}^+ -f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ f_{10}^+ -f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{10}^+ -f_2^- f_7^- f_8^- f_{11}^-}{(-E_7-E_8+E_1+E_{10})(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_2-E_7-E_8+E_5+E_6+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_1^- f_5^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^- +f_1^- f_3^- f_7^- f_8^- f_9^- f_{12}^- f_6^+ -f_1^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- +f_1^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- +f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+ -f_1^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ -f_1^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- -f_1^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ +f_1^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ -f_1^- f_7^- f_9^- f_{10}^-}{(-E_7-E_8+E_1+E_{10})(-E_7-E_9+E_1+E_{11})(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_5^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ f_{10}^+ -f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+ -f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_3^- f_7^- f_8^- f_9^- f_{12}^- f_6^+ f_{10}^+ +f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^- f_{10}^+ -f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ +f_7^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ f_{10}^+ -f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_7-E_8+E_1+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_1^- f_3^- f_{10}^- f_{11}^- f_{12}^- f_6^+ f_8^+ +f_1^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_8^+ +f_1^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+ +f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_8^+ -f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ -f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+ -f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ f_8^+ -f_1^- f_5^- f_9^- f_{10}^-}{(-E_1-E_{10}+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_{10}-E_{12}+E_2+E_8)(-E_1-E_{10}-E_{12}+E_3+E_4+E_8)(-E_1-E_{10}-E_{12}+E_5+E_6+E_8)} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{11}^+ +f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+ f_{11}^+ +f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ f_{11}^+ -f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ +f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+ f_{11}^+ -f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ -f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ f_{11}^+ -f_2^- f_3^- f_7^- f_9^-}{(-E_7-E_9+E_1+E_{11})(-E_2-E_7-E_9+E_3+E_4+E_{11})(-E_2-E_7-E_9+E_5+E_6+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_9^- f_{12}^- f_6^+ f_{11}^+ -f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_{11}^+ +f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^- f_{11}^+ -f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ f_{11}^+ -f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ f_{11}^+ +f_7^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ f_{11}^+ +f_5^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ f_{11}^+ -f_3^- f_7^- f_9^- f_{10}^-}{(-E_7-E_9+E_1+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_3^- f_{10}^- f_{11}^- f_{12}^- f_6^+ f_9^+ +f_1^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_9^+ +f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_9^+ -f_1^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_9^+ +f_1^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_9^+ -f_1^- f_3^- f_8^- f_{11}^- f_{12}^- f_6^+ f_9^+ -f_1^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ f_9^+ -f_1^- f_3^- f_5^- f_8^-}{(-E_1-E_{11}+E_7+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_2+E_9)(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)(-E_1-E_{11}-E_{12}+E_5+E_6+E_9)} \\
\frac{+f_7^- f_8^- f_9^- f_{12}^- f_2^+ f_4^+ f_6^+ +f_5^- f_7^- f_8^- f_9^- f_{12}^- f_2^+ f_4^+ +f_3^- f_7^- f_8^- f_9^- f_{12}^- f_2^+ f_6^+ -f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ f_4^+ f_6^+ -f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ f_4^+ -f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ -f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ f_6^+ -f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ f_4^+ -f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ f_4^+ f_6^+ +f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ f_4^+ f_6^+ +f_3^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ -f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ f_6^+ +f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ f_4^+ +f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ f_6^+ -f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ +f_3^- f_5^- f_7^- f_8^-}{(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_2-E_8+E_{10}+E_{12})(-E_2-E_9+E_{11}+E_{12})}
\end{array}\right.$$

$$-\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|9,10\}\{9,10|V|5,2\}\{11,12|V|11,8\}f_{11}^{-}\begin{pmatrix}
\frac{+f_2^- f_3^- f_4^- f_5^- f_7^+ f_{10}^+ - f_1^- f_2^- f_5^- f_4^+ f_7^+ f_{10}^+ - f_1^- f_2^- f_3^- f_5^- f_7^+ f_{10}^+ + f_2^- f_3^- f_4^- f_5^- f_9^- f_7^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_7^+ - f_1^- f_2^- f_5^- f_9^- f_4^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_2-E_5+E_9+E_{10})(-E_2-E_5+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- + f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_8^- f_{10}^+ - f_2^- f_3^- f_4^- f_5^- f_8^- f_9^- - f_2^- f_3^- f_4^- f_5^- f_8^- f_{10}^+ + f_1^- f_2^- f_5^- f_8^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_2-E_5+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_2^+ f_{10}^+ - f_1^- f_2^- f_7^- f_8^- f_4^+ f_{10}^+ - f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- + f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_7-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^- - f_3^- f_4^- f_8^- f_9^- f_{10}^- f_2^+ + f_1^- f_2^- f_8^- f_9^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9-E_{10}+E_2+E_5)(-E_9-E_{10}+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_7^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_7^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_9-E_{10}+E_2+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_{12}^- f_{10}^+ - f_1^- f_2^- f_5^- f_{12}^- f_4^+ f_{10}^+ + f_2^- f_3^- f_4^- f_5^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_9^- f_{12}^- - f_1^- f_2^- f_5^- f_9^- f_{12}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_9+E_{10})(-E_2-E_5+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- + f_1^- f_2^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9-E_{10}+E_2+E_5)(-E_{12}+E_8)(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{12}^- + f_1^- f_2^- f_3^- f_7^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_7^- f_{12}^- f_2^+ f_{10}^+ + f_1^- f_2^- f_7^- f_9^- f_{12}^- f_4^+ + f_1^- f_2^- f_7^- f_{12}^- f_4^+ f_{10}^+ - f_3^- f_4^- f_7^- f_9^- f_{12}^- f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_{12}+E_2+E_5)(-E_{12}+E_8)(-E_7-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_1^+ f_7^+ f_{10}^+ + f_3^- f_4^- f_5^- f_9^- f_1^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_3-E_4-E_5+E_1+E_9+E_{10})(-E_3-E_4-E_5+E_1+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_1^+ + f_3^- f_4^- f_5^- f_8^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_3-E_4-E_5+E_1+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- + f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_9-E_{10}+E_3+E_4+E_5)(-E_9-E_{10}+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_9-E_{10}+E_3+E_4+E_5)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{12}^- f_1^+ f_{10}^+ + f_3^- f_4^- f_5^- f_9^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_9+E_{10})(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_9-E_{10}+E_3+E_4+E_5)(-E_{12}+E_8)(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{12}^- f_{10}^+ + f_1^- f_3^- f_4^- f_7^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_{12}+E_8)(-E_7-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_7^+ - f_1^- f_3^- f_5^- f_6^- f_9^- f_7^+ - f_1^- f_5^- f_6^- f_9^- f_4^+ f_7^+ + f_3^- f_4^- f_5^- f_6^- f_7^+ f_{10}^+ - f_1^- f_5^- f_6^- f_4^+ f_7^+ f_{10}^+ - f_1^- f_3^- f_5^- f_6^- f_7^+ f_{10}^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_9+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- + f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^+ + f_1^- f_5^- f_6^- f_8^- f_4^+ f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- - f_3^- f_4^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_6^+ f_{10}^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ - f_1^- f_6^- f_7^- f_8^- f_9^- f_4^+ - f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- - f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^+ - f_1^- f_6^- f_7^- f_8^- f_4^+ f_{10}^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_8^- f_9^- f_{10}^- - f_3^- f_4^- f_8^- f_9^- f_{10}^- f_6^+ + f_1^- f_6^- f_8^- f_9^- f_{10}^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9-E_{10}+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_1^- f_6^- f_9^- f_{10}^- f_4^+ f_7^+ - f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_7^+ + f_1^- f_3^- f_6^- f_9^- f_{10}^- f_7^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9-E_{10}+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- + f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_{12}^- f_{10}^+ + f_1^- f_5^- f_6^- f_{12}^- f_4^+ f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_9-E_{10}+E_5+E_6)(-E_{12}+E_8)(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_{12}^- f_4^+ f_{10}^+ - f_3^- f_4^- f_7^- f_{12}^- f_6^+ f_{10}^+ + f_1^- f_3^- f_6^- f_7^- f_{12}^- f_{10}^+ + f_1^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ + f_1^- f_3^- f_6^- f_7^- f_9^- f_{12}^- - f_3^- f_4^- f_7^- f_9^- f_{12}^- f_6^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^+ - f_1^- f_7^- f_8^- f_9^- f_4^+ f_5^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- - f_1^- f_3^- f_7^- f_8^- f_5^+ f_{10}^+ - f_1^- f_3^- f_7^- f_8^- f_9^- f_5^+ - f_1^- f_7^- f_8^- f_4^+ f_5^+ f_{10}^+}{(-E_7-E_8+E_2+E_5)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_8^- f_9^- f_{10}^- f_5^+ + f_1^- f_8^- f_9^- f_{10}^- f_4^+ f_5^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_9-E_{10}+E_2+E_5)(-E_1-E_9-E_{10}+E_3+E_4+E_5)(-E_9-E_{10}+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_1^- f_9^- f_{10}^- f_4^+ f_5^+ f_7^+ + f_1^- f_3^- f_9^- f_{10}^- f_5^+ f_7^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_7^+}{(-E_9-E_{10}+E_2+E_5)(-E_1-E_9-E_{10}+E_3+E_4+E_5)(-E_9-E_{10}+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_5^+ + f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_5^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^-}{(-E_9-E_{10}+E_2+E_5)(-E_1-E_9-E_{10}+E_3+E_4+E_5)(-E_9-E_{10}+E_5+E_6)(-E_{12}+E_8)(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_9^- f_{12}^- - f_1^- f_3^- f_7^- f_9^- f_{12}^- f_5^+ - f_1^- f_3^- f_7^- f_{12}^- f_5^+ f_{10}^+ - f_1^- f_7^- f_9^- f_{12}^- f_4^+ f_5^+ - f_1^- f_7^- f_{12}^- f_4^+ f_5^+ f_{10}^+ + f_3^- f_4^- f_5^- f_7^- f_{12}^- f_{10}^+}{(-E_7-E_{12}+E_2+E_5)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_9+E_{10})}
\end{pmatrix}$$

$$\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- + f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_9+E_{10})(-E_5-E_7+E_1+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_1^+ f_{10}^+ + f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_9+E_{10})(-E_5-E_7+E_1+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- + f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_9-E_{10}+E_5+E_6+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_1-E_9-E_{10}+E_5+E_6+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^+ + f_1^- f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_5-E_7+E_1+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^+ + f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_5-E_7+E_1+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ f_6^+ f_{10}^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_6^+ f_{10}^+ + f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_6+E_{11})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_6^+ f_{10}^+ + f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_6+E_{11})(-E_3-E_4-E_6+E_1+E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_1+E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_5-E_9-E_{10}+E_1+E_8+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_5-E_9-E_{10}+E_1+E_8+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- + f_1^- f_2^- f_5^- f_6^- f_9^- f_{11}^- f_4^+ + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_1-E_{11}+E_5+E_7)(-E_6-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^- + f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_1-E_{11}+E_5+E_7)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{11}^- f_5^+ + f_1^- f_2^- f_8^- f_9^- f_{11}^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_8^- f_{11}^- f_5^+ f_{10}^+ + f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_5^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_1-E_{11}+E_5+E_7)(-E_1-E_8-E_{11}+E_5+E_9+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_{11}^- f_5^+ + f_1^- f_3^- f_4^- f_8^- f_{11}^- f_5^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_1-E_{11}+E_5+E_7)(-E_1-E_8-E_{11}+E_5+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_8^- f_9^- f_{11}^- + f_1^- f_2^- f_6^- f_8^- f_9^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_6^- f_8^- f_{11}^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_6-E_{11}+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{10}^+ + f_1^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_6-E_{11}+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4-E_6+E_1+E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{10}^+ + f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_2-E_5-E_6-E_7+E_3+E_4+E_9+E_{10})(-E_2-E_5-E_7+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_3-E_4-E_9-E_{10}+E_2+E_5+E_6+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_2^+ f_{10}^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_2-E_5-E_7+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_2^+ f_6^+ f_{10}^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_6+E_{11})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_2-E_5-E_9-E_{10}+E_3+E_4+E_8+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^- f_2^+ + f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_3-E_4-E_{11}+E_2+E_5+E_7)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{11}^- f_2^+ f_5^+ + f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_5^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_3-E_4-E_{11}+E_2+E_5+E_7)(-E_3-E_4-E_8-E_{11}+E_2+E_5+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_{11}^- f_2^+ + f_3^- f_4^- f_6^- f_8^- f_{11}^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_6-E_{11}+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_7^+ + f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_9-E_{10}+E_5+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_5-E_7+E_1+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_9-E_{10}+E_5+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_5-E_7+E_1+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_7^+ + f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_9-E_{10}+E_5+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_6-E_7+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_9-E_{10}+E_5+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6-E_7+E_1+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9-E_{10}+E_2+E_5+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_2-E_5-E_7+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9-E_{10}+E_2+E_5+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_6-E_7+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_7^- f_8^- f_9^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_9+E_{10})(-E_1-E_{11}+E_5+E_7)(-E_7-E_8+E_6+E_{11})(-E_2-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{11}^- + f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_9+E_{10})(-E_1-E_{11}+E_5+E_7)(-E_7-E_8+E_6+E_{11})(-E_3-E_4-E_7+E_1+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^- f_7^+ + f_1^- f_2^- f_9^- f_{10}^- f_{11}^- f_4^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_9-E_{10}+E_7+E_8)(-E_1-E_{11}+E_5+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_9-E_{10}+E_7+E_8)(-E_1-E_{11}+E_5+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_7+E_1+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_{11}^- f_2^+ + f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_9+E_{10})(-E_3-E_4-E_{11}+E_2+E_5+E_7)(-E_7-E_8+E_6+E_{11})(-E_2-E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_9-E_{10}+E_7+E_8)(-E_3-E_4-E_{11}+E_2+E_5+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^- f_{11}^- + f_1^- f_2^- f_8^- f_9^- f_{10}^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_8-E_{11}+E_5+E_9+E_{10})(-E_2-E_9-E_{10}+E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_8-E_{11}+E_5+E_9+E_{10})(-E_3-E_4-E_9-E_{10}+E_1+E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_9-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_8-E_{11}+E_2+E_5+E_9+E_{10})(-E_2-E_9-E_{10}+E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ f_{10}^+ f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^+ f_{12}^+ + f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_9+E_{10})(-E_1-E_2+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_2-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_9^- f_{10}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_9-E_{10}+E_7+E_8)(-E_1-E_2+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_2-E_9-E_{10}+E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_7^+ f_{12}^+ + f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_7^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_9-E_{10}+E_7+E_8)(-E_1-E_2+E_5+E_{12})(-E_9-E_{10}-E_{12}+E_2+E_6+E_7)(-E_2-E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_2^+ f_{10}^+ f_{12}^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_2-E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_9-E_{10}+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_2-E_9-E_{10}+E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^+ f_{12}^+ + f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_1-E_8-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_7+E_1+E_{11}+E_{12})}
\end{array}\right.$$

$$
-\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,8\}\{7,8|V|9,12\}\{9,10|V|5,2\}\{11,12|V|11,10\}f_{11}^{-}
\left(\begin{array}{r}
\frac{+f_2^- f_3^- f_4^- f_5^- f_8^+ f_9^+ -f_1^- f_2^- f_5^- f_7^- f_4^+ f_9^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_9^+ +f_2^- f_3^- f_4^- f_5^- f_7^- f_9^+ -f_1^- f_2^- f_3^- f_5^- f_8^+ f_9^+ -f_1^- f_2^- f_5^- f_4^+ f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_2-E_5+E_9+E_{10})(-E_2-E_5+E_9+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_7^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- -f_2^- f_3^- f_4^- f_5^- f_{10}^- f_8^+ +f_1^- f_2^- f_3^- f_5^- f_{10}^- f_8^+ +f_1^- f_2^- f_5^- f_{10}^- f_4^+ f_8^+ -f_2^- f_3^- f_4^- f_5^- f_7^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_2-E_5+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_9^+ +f_1^- f_2^- f_7^- f_8^- f_4^+ f_9^+ -f_3^- f_4^- f_7^- f_8^- f_2^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_7-E_8+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_7^- f_{12}^- f_4^+ -f_2^- f_3^- f_4^- f_5^- f_{12}^- f_8^+ +f_1^- f_2^- f_5^- f_{12}^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_{12}^- +f_1^- f_2^- f_3^- f_5^- f_{12}^- f_8^+ -f_2^- f_3^- f_4^- f_5^- f_7^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_2-E_5+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{12}^- f_2^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{12}^- -f_1^- f_2^- f_7^- f_8^- f_{12}^- f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_7-E_8+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_8^+ -f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_8^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- +f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_8^+ +f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9-E_{10}+E_2+E_5)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{12}^- -f_3^- f_4^- f_9^- f_{12}^- f_2^+ f_8^+ -f_3^- f_4^- f_7^- f_9^- f_{12}^- f_2^+ +f_1^- f_2^- f_3^- f_9^- f_{12}^- f_8^+ +f_1^- f_2^- f_7^- f_9^- f_{12}^- f_4^+ +f_1^- f_2^- f_9^- f_{12}^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9-E_{12}+E_2+E_5)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}\\
\frac{+f_3^- f_4^- f_5^- f_1^+ f_8^+ f_9^+ +f_3^- f_4^- f_5^- f_7^- f_1^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_3-E_4-E_5+E_1+E_9+E_{10})(-E_3-E_4-E_5+E_1+E_9+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_1^+ +f_3^- f_4^- f_5^- f_{10}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_3-E_4-E_5+E_1+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_{12}^- f_1^+ f_8^+ +f_3^- f_4^- f_5^- f_7^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_3-E_4-E_5+E_1+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_8^+ +f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_9-E_{10}+E_3+E_4+E_5)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{12}^- f_8^+ +f_1^- f_3^- f_4^- f_7^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_9-E_{12}+E_3+E_4+E_5)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^+ f_9^+ -f_1^- f_3^- f_5^- f_6^- f_8^+ f_9^+ +f_3^- f_4^- f_5^- f_6^- f_7^- f_9^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_9^+ -f_1^- f_5^- f_6^- f_4^+ f_8^+ f_9^+ -f_1^- f_5^- f_6^- f_7^- f_4^+ f_9^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_9+E_{10})(-E_5-E_6+E_9+E_{12})}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_{10}^- -f_3^- f_4^- f_5^- f_6^- f_{10}^- f_8^+ -f_3^- f_4^- f_5^- f_6^- f_7^- f_{10}^- +f_1^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ +f_1^- f_3^- f_5^- f_6^- f_{10}^- f_8^+ +f_1^- f_5^- f_6^- f_{10}^- f_4^+ f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_6^+ f_9^+ -f_1^- f_6^- f_7^- f_8^- f_4^+ f_9^+ -f_1^- f_3^- f_6^- f_7^- f_8^- f_9^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_1^- f_6^- f_7^- f_8^- f_{10}^- f_4^+ +f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_{12}^- +f_1^- f_5^- f_6^- f_{12}^- f_4^+ f_8^+ -f_3^- f_4^- f_5^- f_6^- f_{12}^- f_8^+ -f_3^- f_4^- f_5^- f_6^- f_7^- f_{12}^- +f_1^- f_5^- f_6^- f_7^- f_{12}^- f_4^+ +f_1^- f_3^- f_5^- f_6^- f_{12}^- f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_{12}^- +f_1^- f_6^- f_7^- f_8^- f_{12}^- f_4^+ -f_3^- f_4^- f_7^- f_8^- f_{12}^- f_6^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+ +f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ -f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- -f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ -f_1^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ -f_1^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_9-E_{10}+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})}\\
\frac{+f_1^- f_3^- f_6^- f_9^- f_{12}^- f_8^+ +f_1^- f_3^- f_6^- f_7^- f_9^- f_{12}^- -f_3^- f_4^- f_9^- f_{12}^- f_6^+ f_8^+ -f_3^- f_4^- f_7^- f_9^- f_{12}^- f_6^+ +f_1^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ +f_1^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9-E_{12}+E_5+E_6)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}\\
\frac{+f_1^- f_3^- f_7^- f_8^- f_5^+ f_9^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_9^+ +f_1^- f_7^- f_8^- f_4^+ f_5^+ f_9^+}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_5^+ +f_1^- f_3^- f_7^- f_8^- f_{10}^- f_5^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_1^- f_7^- f_8^- f_{12}^- f_4^+ f_5^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_{12}^- +f_1^- f_3^- f_7^- f_8^- f_{12}^- f_5^+}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ -f_1^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ -f_1^- f_9^- f_{10}^- f_4^+ f_5^+ f_8^+ -f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_5^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- -f_1^- f_3^- f_9^- f_{10}^- f_5^+ f_8^+}{(-E_9-E_{10}+E_2+E_5)(-E_3-E_4-E_5+E_1+E_9+E_{10})(-E_9-E_{10}+E_5+E_6)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})}\\
\frac{+f_1^- f_3^- f_7^- f_9^- f_{12}^- f_5^+ +f_1^- f_3^- f_9^- f_{12}^- f_5^+ f_8^+ +f_1^- f_7^- f_9^- f_{12}^- f_4^+ f_5^+ +f_1^- f_9^- f_{12}^- f_4^+ f_5^+ f_8^+ -f_3^- f_4^- f_5^- f_9^- f_{12}^- f_8^+ -f_3^- f_4^- f_5^- f_7^- f_9^- f_{12}^-}{(-E_9-E_{12}+E_2+E_5)(-E_1-E_9-E_{12}+E_3+E_4+E_5)(-E_9-E_{12}+E_5+E_6)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}
\end{array}\right)
$$

$$
-\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|5,2\}\{9,10|V|11,12\}\{11,12|V|9,8\}
\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- -f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_2^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^- f_2^+ -f_1^- f_2^- f_5^- f_7^- f_9^- f_4^+ f_{12}^+ -f_1^- f_2^- f_5^- f_7^- f_9^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_5^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_2-E_5+E_7+E_{10})(-E_7-E_{11}-E_{12}+E_2+E_5+}\\
\frac{+f_1^- f_2^- f_7^- f_8^- f_9^- f_{11}^- f_4^+ -f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_8^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- +f_3^- f_4^- f_5^- f_9^- f_2^+ f_8^+ f_{12}^+ -f_1^- f_2^- f_5^- f_9^- f_4^+ f_8^+ f_{12}^+ +f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_8^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_{11}^- f_2^+ -f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_2^+ f_8^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_8^+ f_{12}^+ +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- f_8^+ +f_3^- f_4^- f_5^- f_9^- f_{11}^- f_2^+ f_8^+ -f_1^- f_2^- f_5^- f_9^- f_{11}^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{11}^- -f_3^- f_4^- f_7^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_8+E_{10})(-E_8-E_9+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ +f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_{10}^+ -f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ -f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_2^+ f_{10}^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_{12}^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+ +f_3^- f_4^- f_5^- f_9^- f_2^+ f_{10}^+ f_{12}^+ -f_1^- f_2^- f_5^- f_9^- f_4^+ f_{10}^+ f_{12}^+ -f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- -f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- f_{10}^+ +f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_2^- f_5^- f_9^- f_{11}^- f_4^+ f_{10}^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^- f_2^+ +f_3^- f_4^- f_5^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_{10}+E_2+E_5)(-E_{10}+E_8)(-E_9-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_9^- f_4^+ f_{11}^+ f_{12}^+ -f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_9^+ +f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_2^+ f_9^+ +f_1^- f_2^- f_3^- f_5^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5-E_9+E_7+E_{11}+E_{12})(-E_1}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- -f_1^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{12}^+ -}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_3-E_4-E_5}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_8^+ f_{12}^+ -f_1^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_8^+ +f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- +f_1^- f_3^- f_4^- f_5^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_{10}^+ -f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- +f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ -f_1^- f_3^- f_4^- f_5^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{11}^+ f_{12}^+ -f_1^- f_3^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5-E_9+E_1+E_7+}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^- +f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{12}^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- +f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_5^- f_6^- f_7^- f_9^- f_4^+ f_{12}^+ -f_3^- f_4^- f_5^- f_7^- f_9^- f_6^+ f_{12}^+ -f_1^- f_5^- f_6^- f_7^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_{11}+E}\\
\frac{+f_1^- f_5^- f_6^- f_9^- f_4^+ f_8^+ f_{12}^+ -f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{12}^+ -f_3^- f_4^- f_5^- f_9^- f_6^+ f_8^+ f_{12}^+ -f_1^- f_6^- f_7^- f_8^- f_9^- f_{11}^- f_4^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+ +f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- +f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_6^+ f_8^+ -f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{11}^- -f_3^- f_4^- f_5^- f_9^- f_{11}^- f_6^+ f_8^+ +f_1^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ +f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+ -f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+ +f_1^- f_5^- f_6^- f_9^- f_{11}^- f_4^+ f_8^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_{11}^- f_8^+ -f_1^- f_6^- f_7^- f_8^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_8+E_{10})(-E_8-E_9+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ -f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ -f_1^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ -f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ f_{12}^+ +f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^+ f_{12}^+ -f_1^- f_5^- f_6^- f_9^- f_4^+ f_{10}^+ f_{12}^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^- f_6^+ +f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ +f_3^- f_4^- f_5^- f_9^- f_6^+ f_{10}^+ f_{12}^+ +f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ +f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^- +f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^+ +f_3^- f_4^- f_5^- f_9^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_{11}-E_{12}+E_9+E_{10})}\\
\frac{+f_1^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- f_9^+ -f_1^- f_5^- f_6^- f_9^- f_4^+ f_{11}^+ f_{12}^+ -f_1^- f_3^- f_5^- f_6^- f_9^- f_{11}^+ f_{12}^+ +f_1^- f_6^- f_7^- f_{11}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_{11}-E_{12}+E_5+E_6+E_9)(-E_1}\\
\frac{+f_1^- f_7^- f_8^- f_9^- f_4^+ f_5^+ f_{12}^+ -f_3^- f_4^- f_5^- f_9^- f_{11}^- f_7^+ f_8^+ +f_1^- f_3^- f_7^- f_8^- f_9^- f_5^+ f_{12}^+ +f_1^- f_7^- f_8^- f_9^- f_{11}^- f_4^+ f_5^+ -f_3^- f_4^- f_5^- f_9^- f_7^+ f_8^+ f_{12}^+ -f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_5^+ -f_1^- f_7^- f_8^- f_{11}^-}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_5+E_6)(-E_8+E_{10})(-E_8-E_9+E_{11}+E}\\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{11}^- f_7^+ f_{10}^+ -f_1^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ f_5^+ +f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_5^+ -f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^- f_5^+ -f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_5^+ f_{12}^+ -f_1^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ f_{12}^+ +f_1^- f_3^- f_7^- f_{10}^-}{(-E_7-E_{10}+E_2+E_5)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_9-E_{10}+E_{11}+}\\
\frac{+f_1^- f_3^- f_7^- f_{11}^- f_{12}^- f_5^+ f_9^+ +f_1^- f_7^- f_{11}^- f_{12}^- f_4^+ f_5^+ f_9^+ -f_3^- f}{(-E_7-E_{11}-E_{12}+E_2+E_5+E_9)(-E_1-E_7-E_{11}-E_{12}+E_3+E_4+E_5+E_9)(-E_7-E_{11}-E_{12}+E}
\end{array}\right.
$$

$$-\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,8\}\{7,8|V|1,10\}\{9,10|V|9,2\}\{11,12|V|11,6\}f_9^- f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^+ f_8^+ + f_1^- f_2^- f_4^+ f_5^+ f_8^+ + f_1^- f_2^- f_3^- f_7^- f_5^+ + f_1^- f_2^- f_7^- f_4^+ f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_8)(-E_2+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_8^+ + f_1^- f_2^- f_6^- f_7^- f_4^+ + f_1^- f_2^- f_3^- f_6^- f_7^- + f_1^- f_2^- f_6^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1-E_2+E_7+E_8)(-E_2+E_{10})(-E_6+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^+ f_8^+ + f_2^- f_3^- f_4^- f_7^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_2+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- + f_2^- f_3^- f_4^- f_6^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_2+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_4^- f_1^+ f_5^+ f_8^+ + f_3^- f_4^- f_7^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_1^+ + f_3^- f_4^- f_6^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_1+E_{10})(-E_6+E_{12})} \\
\frac{+f_1^- f_2^- f_{12}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_{12}^- f_8^+ + f_1^- f_2^- f_3^- f_7^- f_{12}^- + f_1^- f_2^- f_7^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_7+E_8)(-E_2+E_{10})(-E_1-E_2+E_5+E_{12})(-E_{12}+E_6)} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{12}^- + f_2^- f_3^- f_4^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_7+E_8)(-E_2+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{12}+E_6)} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_1^+ + f_3^- f_4^- f_{12}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{12}+E_6)} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- + f_2^- f_5^- f_6^- f_7^- f_4^+ + f_2^- f_3^- f_5^- f_6^- f_8^+ + f_2^- f_5^- f_6^- f_4^+ f_8^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_2+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_1^+ + f_5^- f_6^- f_7^- f_1^+ f_4^+ + f_3^- f_5^- f_6^- f_1^+ f_8^+ + f_5^- f_6^- f_1^+ f_4^+ f_8^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_5^+ + f_3^- f_4^- f_{10}^- f_5^+ f_8^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^- + f_3^- f_4^- f_6^- f_{10}^- f_8^+}{(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_7+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_6+E_{12})} \\
\frac{+f_5^- f_6^- f_{10}^- f_4^+ f_8^+ + f_3^- f_5^- f_6^- f_7^- f_{10}^- + f_5^- f_6^- f_7^- f_{10}^- f_4^+ + f_3^- f_5^- f_6^- f_{10}^- f_8^+}{(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_{10}+E_2)(-E_5-E_6+E_1+E_{10})(-E_6+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- + f_2^- f_6^- f_7^- f_8^- f_4^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_2+E_{10})(-E_6+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_5^+ + f_2^- f_7^- f_8^- f_4^+ f_5^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_2+E_{10})(-E_7-E_8+E_5+E_{12})} \\
\frac{+f_6^- f_7^- f_8^- f_1^+ f_4^+ + f_3^- f_6^- f_7^- f_8^- f_1^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_1^+ f_5^+ + f_7^- f_8^- f_1^+ f_4^+ f_5^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_7-E_8+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{12}^- + f_2^- f_7^- f_8^- f_{12}^- f_4^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_2+E_{10})(-E_{12}+E_6)(-E_7-E_8+E_5+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_{12}^- f_1^+ + f_7^- f_8^- f_{12}^- f_1^+ f_4^+}{(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_1+E_{10})(-E_{12}+E_6)(-E_7-E_8+E_5+E_{12})} \\
\frac{+f_3^- f_6^- f_7^- f_8^- f_{10}^- + f_6^- f_7^- f_8^- f_{10}^- f_4^+}{(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_{10}+E_2)(-E_7-E_8+E_1+E_{10})(-E_6+E_{12})} \\
\frac{+f_7^- f_8^- f_{10}^- f_4^+ f_5^+ + f_3^- f_7^- f_8^- f_{10}^- f_5^+}{(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_{10}+E_2)(-E_7-E_8+E_1+E_{10})(-E_7-E_8+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_{12}^- f_8^+ + f_3^- f_4^- f_7^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_7+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{12}+E_6)} \\
\frac{+f_7^- f_8^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_7^- f_8^- f_{10}^- f_{12}^-}{(-E_7-E_8+E_3+E_4)(-E_{10}+E_2)(-E_7-E_8+E_1+E_{10})(-E_{12}+E_6)(-E_7-E_8+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_{10}^- + f_1^- f_6^- f_7^- f_{10}^- f_4^+ + f_1^- f_3^- f_6^- f_{10}^- f_8^+ + f_1^- f_6^- f_{10}^- f_4^+ f_8^+}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_6+E_{12})} \\
\frac{+f_1^- f_7^- f_{10}^- f_4^+ f_5^+ + f_1^- f_3^- f_7^- f_{10}^- f_5^+ + f_1^- f_3^- f_{10}^- f_5^+ f_8^+ + f_1^- f_{10}^- f_4^+ f_5^+ f_8^+}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_1-E_{10}+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_{10}^- f_{12}^- + f_1^- f_7^- f_{10}^- f_{12}^- f_4^+ + f_1^- f_3^- f_{10}^- f_{12}^- f_8^+ + f_1^- f_{10}^- f_{12}^- f_4^+ f_8^+}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_7+E_8)(-E_{12}+E_6)(-E_1-E_{10}+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_{12}^- f_4^+ + f_2^- f_3^- f_5^- f_7^- f_{12}^- + f_2^- f_3^- f_5^- f_{12}^- f_8^+ + f_2^- f_5^- f_{12}^- f_4^+ f_8^+}{(-E_2+E_{10})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_5-E_{12}+E_7+E_8)} \\
\frac{+f_5^- f_{10}^- f_{12}^- f_4^+ f_8^+ + f_5^- f_7^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_5^- f_{10}^- f_{12}^- f_8^+ + f_3^- f_5^- f_7^- f_{10}^- f_{12}^-}{(-E_{10}+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_5-E_{12}+E_7+E_8)(-E_5-E_{12}+E_1+E_{10})} \\
\frac{+f_5^- f_7^- f_{12}^- f_1^+ f_4^+ + f_5^- f_{12}^- f_1^+ f_4^+ f_8^+ + f_3^- f_5^- f_{12}^- f_1^+ f_8^+ + f_3^- f_5^- f_7^- f_{12}^- f_1^+}{(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_5-E_{12}+E_7+E_8)(-E_5-E_{12}+E_1+E_{10})}
\end{array}\right)$$

$$
-\frac{1}{8}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,8\}\{7,8|V|1,10\}\{9,10|V|11,6\}\{11,12|V|9,2\}
\begin{pmatrix}
\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ + f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- - f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- - f_1^- f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_5-E_9+E_1+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ + f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- - f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- f_8^+ - f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_5-E_9+E_1+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- f_2^+ - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+ f_8^+ - f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- f_2^+ + f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_8)(-E_2-E_5-E_6+E_3+E_4+E_{10})(-E_2-E_5-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- + f_1^- f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- - f_1^- f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- - f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+ - f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_1-E_6-E_{11}+E_7+E_8+E_9)(-E_1-E_2-E_6+E_7+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_7-E_8-E_9+E_1+E_6+E_{11})(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_2^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_6^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_5+E_6)(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_3-E_4-E_6-E_{11}+E_2+E_7+E_8+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_8^+ - f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_8^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- + f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ f_8^+ + f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_1-E_{11}+E_5+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ - f_1^- f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- - f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_8^+ + f_1^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_5-E_9+E_1+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_8^+ + f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ - f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_6^+ f_8^+ - f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_6^+ - f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_6^+ f_8^+ + f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ f_8^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ - f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_6^+ f_8^+ - f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+ + f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_5+E_6)(-E_1-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_1+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_2^+ + f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ f_8^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ f_8^+ - f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_6^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_6^+ f_8^+ + f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+ f_8^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+ + f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_1+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_7-E_8-E_9+E_1+E_6+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_1+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_7-E_8-E_9+E_1+E_6+E_{11})(-E_3-E_4-E_9+E_1+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_8^+ f_9^+ + f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_9^+ + f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_8^+ f_9^+ + f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_7+E_8)(-E_1-E_{11}+E_5+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_8^+ f_9^+ + f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_7+E_8)(-E_1-E_{11}+E_5+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_9+E_1+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_1+E_{10})(-E_1-E_2+E_5+E_{12})(-E_7-E_8-E_{12}+E_1+E_2+E_6)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_8^+ f_{12}^+ + f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_8^+ f_{12}^+ + f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_8^+ f_{12}^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_8^+ f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_7+E_8)(-E_1-E_2+E_5+E_{12})(-E_{10}-E_{12}+E_2+E_6)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_1+E_{10})(-E_3-E_4+E_5+E_{12})(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_8^+ f_{12}^+ + f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^+ - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_8^+ f_{12}^+ - f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_1-E_{10}-E_{12}+E_3+E_4+E_6)(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_2-E_7-E_8-E_9+E_3+E_4+E_6+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_8^+ f_9^+ + f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_3-E_4+E_5+E_{12})(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_8^+ f_{12}^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_{12}^+ + f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_{10}-E_{12}+E_2+E_6)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- f_9^+ + f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_8^+ f_9^+ + f_1^- f_2^- f_6^- f_7^- f_{11}^- f_4^+ f_9^+ + f_1^- f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{11}+E_5+E_9)(-E_1-E_6-E_{11}+E_7+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_9^+ + f_1^- f_3^- f_4^- f_6^- f_7^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{11}+E_5+E_9)(-E_1-E_6-E_{11}+E_7+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4-E_9+E_1+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_2^+ f_9^+ + f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_3-E_4-E_6-E_{11}+E_2+E_7+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^+ + f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+ f_{12}^+ - f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_8^+ f_{12}^+ - f_1^- f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_{12}^+ - f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_6^- f_7^- f_{11}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_9^- f_8^+ f_{12}^+ + f_1^- f_2^- f_6^- f_9^- f_4^+ f_8^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_1-E_2-E_6+E_7+E_8+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_2^+ f_{12}^+ - f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_8^+ f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_{11}^- f_2^+ f_{12}^+ + f_3^- f_4^- f_6^- f_9^- f_2^+ f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^+ - f_1^- f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_{12}^+ - f_1^- f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^+ + f_1^- f_3^- f_4^- f_6^- f_9^- f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_3-E_4-E_6+E_1+E_{10}+E_{12})(-E_3-E_4-E_9+E_1+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_8^+ f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- f_{10}^+ + f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- f_{10}^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+ f_{10}^+ + f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+ f_{10}^+ - f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^+ + f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ f_{10}^+ - f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ f_{10}^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ f_{10}^+ - f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ f_{10}^+ + f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{10}^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_2-E_5-E_6+E_3+E_4+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ + f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{12}^- + f_1^- f_5^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+ + f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+ - f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+ - f_1^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- - f_1^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_5-E_9+E_1+E_{11})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+ f_{10}^+ + f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+ f_{10}^+ + f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ + f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ f_{10}^+ - f_5^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ f_{10}^+ - f_3^- f_5^- f_6^- f_7^- f_9^- f_{12}^- f_{10}^+ - f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+ f_{10}^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_1+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{10}-E_{12}+E_2+E_6)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{10}^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_{10}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ f_{10}^+ + f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ f_{10}^+ - f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+ f_{10}^+ - f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+ f_{10}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_7+E_8)(-E_7-E_8-E_{11}+E_5+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{10}^+ + f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ - f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+ - f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{10}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_2-E_7-E_8+E_3+E_4+E_{10})(-E_7-E_8-E_{11}+E_5+E_9+E_{10})(-E_2-E_7-E_8+E_5+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_1^- f_5^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^- + f_1^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_9^- f_{12}^- f_6^+ + f_1^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ - f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_7-E_8-E_9+E_1+E_6+E_{11})(-E_7-E_8-E_{12}+E_1+E_2+E_6)(-E_7-E_8-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_7^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ f_{10}^+ - f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ + f_3^- f_7^- f_8^- f_9^- f_{12}^- f_6^+ f_{10}^+ - f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ f_{10}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_{10}-E_{12}+E_2+E_6)} \\
\frac{+f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ - f_5^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ f_{10}^+ - f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^- f_{10}^+ + f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_1+E_{10})(-E_7-E_8-E_{11}+E_5+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_5-E_{10}-E_{12}+E_2+E_7+E_8)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- f_{11}^+ + f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ f_{11}^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_9+E_1+E_{11})(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ f_{11}^+ + f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ f_{11}^+ + f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ f_{11}^+ + f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^+}{(-E_5-E_6+E_7+E_8)(-E_5-E_9+E_1+E_{11})(-E_2-E_5-E_9+E_3+E_4+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_7-E_8+E_5+E_6)(-E_5-E_9+E_1+E_{11})(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_7-E_8-E_{11}+E_5+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}
\end{pmatrix}
$$

$$+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|5,2\}\{9,10|V|9,12\}\{11,12|V|11,8\}f_9^- f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^+ +f_1^- f_2^- f_5^- f_4^+ f_7^+ -f_3^- f_4^- f_5^- f_2^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_2-E_5+E_7+E_{10})(-E_2-E_5+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- -f_3^- f_4^- f_7^- f_8^- f_2^+ +f_3^- f_4^- f_5^- f_8^- f_2^+ +f_1^- f_2^- f_7^- f_8^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_8^- -f_1^- f_2^- f_5^- f_8^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_{10}^- -f_1^- f_2^- f_5^- f_{10}^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_{10}^- +f_3^- f_4^- f_5^- f_{10}^- f_2^+ -f_3^- f_4^- f_7^- f_{10}^- f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_{10}+E_2+E_5)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{12}^- +f_3^- f_4^- f_5^- f_{12}^- f_2^+ +f_1^- f_2^- f_7^- f_{12}^- f_4^+ -f_3^- f_4^- f_7^- f_{12}^- f_2^+ -f_1^- f_2^- f_5^- f_{12}^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_{12}+E_2+E_5)(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_4-E_5+E_1+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- -f_1^- f_3^- f_4^- f_5^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{10}^- -f_1^- f_3^- f_4^- f_5^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{12}^- -f_1^- f_3^- f_4^- f_7^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_5^- f_6^- f_4^+ f_7^+ +f_1^- f_3^- f_5^- f_6^- f_7^+ -f_3^- f_4^- f_5^- f_6^+ f_7^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_6^+ +f_1^- f_6^- f_7^- f_8^- f_4^+ +f_1^- f_3^- f_6^- f_7^- f_8^- -f_1^- f_3^- f_5^- f_6^- f_8^- -f_3^- f_4^- f_7^- f_8^- f_6^+ -f_1^- f_5^- f_6^- f_8^- f_4^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_8)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_{10}^- -f_1^- f_5^- f_6^- f_{10}^- f_4^+ +f_3^- f_4^- f_5^- f_{10}^- f_6^+ +f_1^- f_6^- f_7^- f_{10}^- f_4^+ -f_3^- f_4^- f_7^- f_{10}^- f_6^+ -f_1^- f_3^- f_5^- f_6^- f_{10}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_{12}^- -f_1^- f_6^- f_7^- f_{12}^- f_4^+ -f_3^- f_4^- f_5^- f_{12}^- f_6^+ -f_1^- f_3^- f_6^- f_7^- f_{12}^- +f_3^- f_4^- f_7^- f_{12}^- f_6^+ +f_1^- f_5^- f_6^- f_{12}^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_5^+ +f_1^- f_7^- f_8^- f_4^+ f_5^+ -f_3^- f_4^- f_5^- f_7^+ f_8^+}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_5+E_6)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_1^- f_7^- f_{10}^- f_4^+ f_5^+ -f_3^- f_4^- f_5^- f_7^+ f_{10}^+ +f_1^- f_3^- f_7^- f_{10}^- f_5^+}{(-E_7-E_{10}+E_2+E_5)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^+ f_{12}^+ -f_1^- f_3^- f_7^- f_{12}^- f_5^+ -f_1^- f_7^- f_{12}^- f_4^+ f_5^+}{(-E_7-E_{12}+E_2+E_5)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_8)(-E_{12}+E_{10})}
\end{array}\right)$$

$$+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|5,2\}\{9,10|V|11,8\}\{11,12|V|9,12\}f_{12}^- \left(\begin{array}{r}
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_2^+ f_7^+ -f_1^- f_2^- f_3^- f_5^- f_{11}^- f_7^+ -f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_7^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_7^+ +f_1^- f_2^- f_5^- f_9^- f_4^+ f_7^+ -f_3^- f_4^- f_5^- f_9^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_2-E_5+E_7+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- -f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ -f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ -f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ -f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ -f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- -f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- +f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ +f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+ +f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_8+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ +f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- -f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ +f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- +f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ -f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_2^+ -f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- -f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7-E_{10}+E_2+E_5)(-E_{10}+E_8)(-E_9+E_{11})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{11}^- f_7^+ -f_1^- f_3^- f_4^- f_5^- f_9^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- +f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- -f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- -f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_8+E_{10})(-E_{11}+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- +f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- -f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- -f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_{10}+E_8)(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_6^+ f_7^+ -f_1^- f_3^- f_5^- f_6^- f_9^- f_7^+ -f_1^- f_5^- f_6^- f_9^- f_4^+ f_7^+ -f_3^- f_4^- f_5^- f_{11}^- f_6^+ f_7^+ +f_1^- f_3^- f_5^- f_6^- f_{11}^- f_7^+ +f_1^- f_5^- f_6^- f_{11}^- f_4^+ f_7^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_6^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ +f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- +f_1^- f_6^- f_7^- f_8^- f_9^- f_4^+ -f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+ -f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- -f_1^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ -f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- +f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ +f_1^- f_3^- f_6^- f_7^- f_8^- f_9^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_8)(-E_8+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+ +f_3^- f_4^- f_5^- f_9^- f_{10}^- f_6^+ -f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- +f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- -f_1^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ +f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ +f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- +f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ -f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_6^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_{11}+E_9)} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_9^- f_5^+ -f_1^- f_7^- f_8^- f_{11}^- f_4^+ f_5^+ -f_3^- f_4^- f_5^- f_9^- f_7^+ f_8^+ +f_1^- f_7^- f_8^- f_9^- f_4^+ f_5^+ +f_3^- f_4^- f_5^- f_{11}^- f_7^+ f_8^+ -f_1^- f_3^- f_7^- f_8^- f_{11}^- f_5^+}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_5+E_6)(-E_8+E_{10})(-E_9+E_{11})} \\
\frac{+f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_5^+ +f_1^- f_7^- f_{10}^- f_{11}^- f_4^+ f_5^+ -f_3^- f_4^- f_5^- f_{11}^- f_7^+ f_{10}^+ -f_1^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ -f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_5^+ +f_3^- f_4^- f_5^- f_9^- f_7^+ f_{10}^+}{(-E_7-E_{10}+E_2+E_5)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_{11}+E_9)}
\end{array}\right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|9,8\}\{9,10|V|5,2\}\{11,12|V|11,10\}f_8^-f_{11}^-\left(\begin{array}{r}
\frac{+f_1^-f_2^-f_3^-f_5^-f_7^-+f_1^-f_2^-f_5^-f_7^-f_4^+-f_2^-f_3^-f_4^-f_5^-f_7^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7+E_9)(-E_2-E_5+E_7+E_{10})(-E_2-E_5+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{10}^-f_2^+-f_1^-f_2^-f_3^-f_7^-f_{10}^--f_1^-f_2^-f_7^-f_{10}^-f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7+E_9)(-E_7-E_{10}+E_2+E_5)(-E_{10}+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_5^-f_9^--f_1^-f_2^-f_3^-f_5^-f_9^--f_1^-f_2^-f_5^-f_9^-f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_9+E_7)(-E_2-E_5+E_9+E_{10})(-E_2-E_5+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_2^+-f_1^-f_2^-f_3^-f_9^-f_{10}^--f_1^-f_2^-f_9^-f_{10}^-f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_9+E_7)(-E_9-E_{10}+E_2+E_5)(-E_{10}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{12}^-f_2^+-f_1^-f_2^-f_3^-f_7^-f_{12}^--f_1^-f_2^-f_7^-f_{12}^-f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7+E_9)(-E_7-E_{12}+E_2+E_5)(-E_{12}+E_{10})}\\
\frac{+f_3^-f_4^-f_9^-f_{12}^-f_2^+-f_1^-f_2^-f_3^-f_9^-f_{12}^--f_1^-f_2^-f_9^-f_{12}^-f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_9+E_7)(-E_9-E_{12}+E_2+E_5)(-E_{12}+E_{10})}\\
\frac{+f_1^-f_2^-f_5^-f_4^+f_{10}^+-f_2^-f_3^-f_4^-f_5^-f_{10}^++f_1^-f_2^-f_3^-f_5^-f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_2-E_5+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_1^-f_2^-f_5^-f_4^+f_{12}^++f_1^-f_2^-f_3^-f_5^-f_{12}^+-f_2^-f_3^-f_4^-f_5^-f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{12})(-E_2-E_5+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_3^-f_4^-f_5^-f_7^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_9)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_4-E_5+E_1+E_7+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_7^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_9)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_{10}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_9^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_7)(-E_3-E_4-E_5+E_1+E_9+E_{10})(-E_3-E_4-E_5+E_1+E_9+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_9^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_7)(-E_1-E_9-E_{10}+E_3+E_4+E_5)(-E_{10}+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_7^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_7+E_9)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_{12}+E_{10})}\\
\frac{+f_1^-f_3^-f_4^-f_9^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_7)(-E_1-E_9-E_{12}+E_3+E_4+E_5)(-E_{12}+E_{10})}\\
\frac{+f_3^-f_4^-f_5^-f_1^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_4-E_5+E_1+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_1^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_3-E_4-E_5+E_1+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_1^-f_3^-f_5^-f_6^-f_7^--f_3^-f_4^-f_5^-f_6^-f_7^-+f_1^-f_5^-f_6^-f_7^-f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_1^-f_3^-f_6^-f_7^-f_{10}^--f_3^-f_4^-f_7^-f_{10}^-f_6^++f_1^-f_6^-f_7^-f_{10}^-f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7+E_9)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_{12})}\\
\frac{+f_1^-f_3^-f_5^-f_6^-f_9^--f_3^-f_4^-f_5^-f_6^-f_9^-+f_1^-f_5^-f_6^-f_9^-f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9+E_7)(-E_5-E_6+E_9+E_{10})(-E_5-E_6+E_9+E_{12})}\\
\frac{+f_1^-f_6^-f_9^-f_{10}^-f_4^+-f_3^-f_4^-f_9^-f_{10}^-f_6^++f_1^-f_3^-f_6^-f_9^-f_{10}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9+E_7)(-E_9-E_{10}+E_5+E_6)(-E_{10}+E_{12})}\\
\frac{+f_1^-f_3^-f_6^-f_7^-f_{12}^--f_3^-f_4^-f_7^-f_{12}^-f_6^++f_1^-f_6^-f_7^-f_{12}^-f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7+E_9)(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_{10})}\\
\frac{+f_1^-f_6^-f_9^-f_{12}^-f_4^++f_1^-f_3^-f_6^-f_9^-f_{12}^--f_3^-f_4^-f_9^-f_{12}^-f_6^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9+E_7)(-E_9-E_{12}+E_5+E_6)(-E_{12}+E_{10})}\\
\frac{+f_1^-f_3^-f_5^-f_6^-f_{10}^++f_1^-f_5^-f_6^-f_4^+f_{10}^+-f_3^-f_4^-f_5^-f_6^-f_{10}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_1^-f_3^-f_5^-f_6^-f_{12}^++f_1^-f_5^-f_6^-f_4^+f_{12}^+-f_3^-f_4^-f_5^-f_6^-f_{12}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_6+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_1^-f_3^-f_7^-f_{10}^-f_5^++f_1^-f_7^-f_{10}^-f_4^+f_5^+-f_3^-f_4^-f_5^-f_7^-f_{10}^-}{(-E_7+E_9)(-E_7-E_{10}+E_2+E_5)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_{12})}\\
\frac{+f_1^-f_3^-f_9^-f_{10}^-f_5^+-f_3^-f_4^-f_5^-f_9^-f_{10}^-+f_1^-f_9^-f_{10}^-f_4^+f_5^+}{(-E_9+E_7)(-E_9-E_{10}+E_2+E_5)(-E_1-E_9-E_{10}+E_3+E_4+E_5)(-E_9-E_{10}+E_5+E_6)(-E_{10}+E_{12})}\\
\frac{+f_1^-f_3^-f_7^-f_{12}^-f_5^+-f_3^-f_4^-f_5^-f_7^-f_{12}^-+f_1^-f_7^-f_{12}^-f_4^+f_5^+}{(-E_7+E_9)(-E_7-E_{12}+E_2+E_5)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_{10})}\\
\frac{+f_3^-f_4^-f_5^-f_9^-f_{12}^--f_1^-f_9^-f_{12}^-f_4^+f_5^+-f_1^-f_3^-f_9^-f_{12}^-f_5^+}{(-E_9+E_7)(-E_9-E_{12}+E_2+E_5)(-E_3-E_4-E_5+E_1+E_9+E_{12})(-E_9-E_{12}+E_5+E_6)(-E_{12}+E_{10})}
\end{array}\right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|9,12\}\{9,10|V|11,8\}\{11,12|V|5,2\}\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- +f_1^- f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_2-E_5-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_7^- f_9^- f_2^+ f_{11}^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{11}^+ -f_1^- f_2^- f_5^- f_7^- f_9^- f_4^+ f_{11}^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_2^+ +f_1^- f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_2-E_5-E_9+E_7+E_8+E_{11})(-E_2-E_5+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_2^+ -f_1^- f_2^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7-E_{10}+E_2+E_5)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+ f_{10}^+ -f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{10}^+ -f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_5-E_8+E_9+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^+ f_{11}^+ -f_3^- f_4^- f_5^- f_9^- f_2^+ f_{10}^+ f_{11}^+ +f_1^- f_2^- f_5^- f_9^- f_4^+ f_{10}^+ f_{11}^+ -f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{10}^+ +f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ f_{10}^+ -f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_5+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_{11}^+ -f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+ -f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ +f_1^- f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_2^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7-E_{10}+E_2+E_5)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+ f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{12}^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_2^+ f_{12}^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{12}^- -f_1^- f_2^- f_5^- f_7^- f_9^- f_{12}^- f_4^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_{12}^- f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_2-E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ +f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_2^+ f_{12}^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ -f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_{10}+E_2+E_5)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_8^- f_4^+ f_{10}^+ f_{12}^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_{12}^- f_{10}^+ +f_3^- f_4^- f_5^- f_9^- f_{12}^- f_2^+ f_{10}^+ -f_3^- f_4^- f_5^- f_8^- f_2^+ f_{10}^+ f_{12}^+ +f_1^- f_2^- f_3^- f_5^- f_8^- f_{10}^+ f_{12}^+ -f_1^- f_2^- f_5^- f_9^- f_{12}^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{10})(-E_2-E_5-E_8+E_9+E_{10}+E_{12})(-E_2-E_5+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_9^+ -f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_7-E_8-E_{11}+E_2+E_5+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_8^+ f_{11}^+ +f_1^- f_2^- f_5^- f_9^- f_4^+ f_8^+ f_{11}^+ -f_3^- f_4^- f_5^- f_9^- f_2^+ f_8^+ f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5-E_9+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_2-E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ -f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_2^+ f_8^+ +f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_2+E_5+E_8)}\\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_2^+ f_8^+ -f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ f_8^+ -f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_2+E_5)}\\
\frac{+f_1^- f_2^- f_9^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ -f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_2^+ f_{10}^+ +f_1^- f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_{10}^+ +f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_2^+ f_{10}^+ -f_1^- f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_{10}^+ -f_1^- f_2^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_2+E_5)(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{12}^- f_2^+ f_8^+ -f_1^- f_2^- f_5^- f_9^- f_{12}^- f_4^+ f_8^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_9-E_{12}+E_7+E_8)(-E_2-E_5-E_8+E_9+E_{10}+E_{12})(-E_2-E_5+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_2^+ -f_1^- f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ +f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_9^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_2+E_5)(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_4-E_5-E_9+E_1+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^+ -f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_4-E_5-E_9+E_1+E_7+E_8+E_{11})(-E_3-E_4-E_5+E_1+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4-E_5-E_8+E_1+E_9+E_{10}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^+ f_{11}^+ -f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4-E_5+E_1+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+ -f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{12}^+ -f_1^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_4-E_5+E_1+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- -f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_{10}^+ f_{12}^+ -f_1^- f_3^- f_4^- f_5^- f_9^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_4-E_5-E_8+E_1+E_9+E_{10}+E_{12})(-E_3-E_4-E_5+E_1+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8-E_{11}+E_3+E_4+E_5+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_8^+ f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5-E_9+E_1+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4-E_5+E_1+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_1-E_9-E_{10}-E_{12}+E_3+E_4+E_5+E_8)}\\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_1-E_{11}-E_{12}+E_3+E_4+E_5)}\\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_{10}^+ -f_1^- f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_1-E_{11}-E_{12}+E_3+E_4+E_5)(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9-E_{12}+E_7+E_8)(-E_3-E_4-E_5-E_8+E_1+E_9+E_{10}+E_{12})(-E_3-E_4-E_5+E_1+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- -f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9-E_{12}+E_7+E_8)(-E_1-E_{11}-E_{12}+E_3+E_4+E_5)(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_6^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- -f_1^- f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^+ +f_1^- f_5^- f_6^- f_7^- f_9^- f_4^+ f_{11}^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- +f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_6^+ -f_1^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ -f_3^- f_4^- f_5^- f_7^- f_9^- f_6^+ f_{11}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_5-E_6+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ -f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{10}^- -f_1^- f_6^- f_7^- f_8^- f_9^- f_{10}^- f_4^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_6^+ f_{10}^+ -f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ f_{10}^+ -f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_9^- f_6^+ f_{10}^+ f_{11}^+ -f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^+ f_{11}^+ +f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_{10}^+ -f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+ f_{10}^+ +f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+ -f_1^- f_5^- f_6^- f_9^- f_4^+ f_{10}^+ f_{11}^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_5-E_6+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+ +f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ -f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{11}^- -f_1^- f_6^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+ +f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_{12}^+ -f_1^- f_5^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ +f_3^- f_4^- f_5^- f_7^- f_9^- f_{12}^- f_6^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{12}^- -f_3^- f_4^- f_5^- f_7^- f_8^- f_6^+ f_{12}^+ +f_1^- f_5^- f_6^- f_7^- f_8^- f_4^+ f_{12}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_5-E_6+E_{11}+E_{12})}\\
\frac{+f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ +f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ -f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^+ -f_1^- f_6^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ +f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_{10}^+ -f_1^- f_5^- f_6^- f_8^- f_4^+ f_{10}^+ f_{12}^+ -f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^+ f_{12}^+ +f_3^- f_4^- f_5^- f_8^- f_6^+ f_{10}^+ f_{12}^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- f_{10}^+ -f_3^- f_4^- f_5^- f_9^- f_{12}^- f_6^+ f_{10}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)(-E_5-E_6+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ +f_1^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_8^+ f_{11}^+ -f_3^- f_4^- f_5^- f_9^- f_6^+ f_8^+ f_{11}^+ +f_1^- f_5^- f_6^- f_9^- f_4^+ f_8^+ f_{11}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_5-E_6+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ +f_1^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ -f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)}\\
\frac{+f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_6^+ f_8^+ -f_1^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ -f_1^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ f_8^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_5+E_6)}\\
\frac{+f_1^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ -f_1^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_{10}^+ +f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ -f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ -f_1^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ +f_1^- f_3^- f_6^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ +f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+ -f_3^- f_4^- f_5^- f_9^- f_{12}^- f_6^+ f_8^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9-E_{12}+E_7+E_8)(-E_5-E_6-E_8+E_9+E_{10}+E_{12})(-E_5-E_6+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ +f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_3^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- -f_1^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_7+E_{10})}
\end{array}\right)$$

$$
+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|7,6\}\{7,8|V|1,10\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_6^- f_9^- f_{11}^-
\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- +f_1^- f_2^- f_5^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_1-E_2+E_5+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_4^+ +f_1^- f_2^- f_3^- f_7^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_1-E_2+E_7+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_4^+ f_8^+ +f_1^- f_2^- f_3^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_2+E_7+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_1+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_8^- +f_2^- f_5^- f_8^- f_4^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_5^- f_8^- f_1^+ f_4^+ +f_3^- f_5^- f_8^- f_1^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_1+E_{10})(-E_5-E_8+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^-}{(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_8^- f_{10}^- +f_5^- f_8^- f_{10}^- f_4^+}{(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_{10}+E_2)(-E_5-E_8+E_1+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{12}^-}{(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_5^- f_8^- f_{12}^- +f_5^- f_8^- f_{12}^- f_4^+}{(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_{12}+E_2)(-E_5-E_8+E_1+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_2^- f_7^- f_8^- f_4^+ +f_2^- f_3^- f_7^- f_8^-}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_2+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_1^+ +f_7^- f_8^- f_1^+ f_4^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_1+E_{10})(-E_7-E_8+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^-}{(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_{10}^- +f_7^- f_8^- f_{10}^- f_4^+}{(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_{10}+E_2)(-E_7-E_8+E_1+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^-}{(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_7^- f_8^- f_{12}^- +f_7^- f_8^- f_{12}^- f_4^+}{(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_{12}+E_2)(-E_7-E_8+E_1+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_{10}^- +f_1^- f_5^- f_{10}^- f_4^+}{(-E_5+E_7)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_{10}^- +f_1^- f_7^- f_{10}^- f_4^+}{(-E_7+E_5)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_5^- f_{12}^- f_4^+ +f_1^- f_3^- f_5^- f_{12}^-}{(-E_5+E_7)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_8)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_7^- f_{12}^- f_4^+ +f_1^- f_3^- f_7^- f_{12}^-}{(-E_7+E_5)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_7+E_8)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_{10}^- f_8^+}{(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_{12}^- f_8^+}{(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_1^- f_{10}^- f_4^+ f_8^+ +f_1^- f_3^- f_{10}^- f_8^+}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_8)(-E_1-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_{12}^- f_4^+ f_8^+ +f_1^- f_3^- f_{12}^- f_8^+}{(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_8)(-E_1-E_{12}+E_7+E_8)(-E_{12}+E_{10})}
\end{array}\right)
$$

$$+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|7,6\}\{7,8|V|1,10\}\{9,10|V|11,2\}\{11,12|V|9,12\}f_6^-f_{12}^-\left(\begin{array}{r}
\frac{+f_1^-f_2^-f_3^-f_5^-f_9^-+f_1^-f_2^-f_5^-f_9^-f_4^+-f_1^-f_2^-f_5^-f_{11}^-f_4^+-f_1^-f_2^-f_3^-f_5^-f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_1-E_2+E_5+E_8)(-E_2+E_{10})(-E_9+E_{11})}\\
\frac{+f_2^-f_3^-f_4^-f_5^-f_9^--f_2^-f_3^-f_4^-f_5^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_2+E_{10})(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_5^-f_9^-f_1^+-f_3^-f_4^-f_5^-f_{11}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_1+E_{10})(-E_9+E_{11})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_{11}^-+f_1^-f_2^-f_7^-f_{11}^-f_4^+-f_1^-f_2^-f_7^-f_9^-f_4^+-f_1^-f_2^-f_3^-f_7^-f_9^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_1-E_2+E_7+E_8)(-E_2+E_{10})(-E_{11}+E_9)}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_9^--f_2^-f_3^-f_4^-f_7^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_2+E_{10})(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_7^-f_{11}^-f_1^+-f_3^-f_4^-f_7^-f_9^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_1+E_{10})(-E_{11}+E_9)}\\
\frac{+f_1^-f_2^-f_9^-f_4^+f_8^+-f_1^-f_2^-f_{11}^-f_4^+f_8^++f_1^-f_2^-f_3^-f_9^-f_8^+-f_1^-f_2^-f_3^-f_{11}^-f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_2+E_7+E_8)(-E_2+E_{10})(-E_9+E_{11})}\\
\frac{+f_2^-f_3^-f_4^-f_{11}^-f_8^+-f_2^-f_3^-f_4^-f_9^-f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_2+E_{10})(-E_{11}+E_9)}\\
\frac{+f_3^-f_4^-f_{11}^-f_1^+f_8^+-f_3^-f_4^-f_9^-f_1^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_1+E_{10})(-E_{11}+E_9)}\\
\frac{+f_2^-f_5^-f_8^-f_9^-f_4^++f_2^-f_3^-f_5^-f_8^-f_9^--f_2^-f_3^-f_5^-f_8^-f_{11}^--f_2^-f_5^-f_8^-f_{11}^-f_4^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_2+E_{10})(-E_9+E_{11})}\\
\frac{+f_3^-f_5^-f_8^-f_9^-f_1^++f_5^-f_8^-f_9^-f_1^+f_4^+-f_3^-f_5^-f_8^-f_{11}^-f_1^+-f_5^-f_8^-f_{11}^-f_1^+f_4^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_1+E_{10})(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_5^-f_9^-f_{10}^--f_3^-f_4^-f_5^-f_{10}^-f_{11}^-}{(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_9+E_{11})}\\
\frac{+f_3^-f_5^-f_8^-f_9^-f_{10}^--f_3^-f_5^-f_8^-f_{10}^-f_{11}^-+f_5^-f_8^-f_9^-f_{10}^-f_4^+-f_5^-f_8^-f_{10}^-f_{11}^-f_4^+}{(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_{10}+E_2)(-E_5-E_8+E_1+E_{10})(-E_9+E_{11})}\\
\frac{+f_2^-f_7^-f_8^-f_{11}^-f_4^++f_2^-f_3^-f_7^-f_8^-f_{11}^--f_2^-f_3^-f_7^-f_8^-f_9^--f_2^-f_7^-f_8^-f_9^-f_4^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_2+E_{10})(-E_{11}+E_9)}\\
\frac{+f_7^-f_8^-f_9^-f_1^+f_4^+-f_3^-f_7^-f_8^-f_{11}^-f_1^++f_3^-f_7^-f_8^-f_9^-f_1^+-f_7^-f_8^-f_{11}^-f_1^+f_4^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_1+E_{10})(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_7^-f_9^-f_{10}^--f_3^-f_4^-f_7^-f_{10}^-f_{11}^-}{(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_9+E_{11})}\\
\frac{+f_3^-f_7^-f_8^-f_9^-f_{10}^-+f_7^-f_8^-f_9^-f_{10}^-f_4^+-f_7^-f_8^-f_{10}^-f_{11}^-f_4^+-f_3^-f_7^-f_8^-f_{10}^-f_{11}^-}{(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_{10}+E_2)(-E_7-E_8+E_1+E_{10})(-E_9+E_{11})}\\
\frac{+f_1^-f_3^-f_5^-f_9^-f_{10}^-+f_1^-f_5^-f_9^-f_{10}^-f_4^+-f_1^-f_3^-f_5^-f_{10}^-f_{11}^--f_1^-f_5^-f_{10}^-f_{11}^-f_4^+}{(-E_5+E_7)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_8)(-E_9+E_{11})}\\
\frac{+f_1^-f_3^-f_7^-f_9^-f_{10}^-+f_1^-f_7^-f_9^-f_{10}^-f_4^+-f_1^-f_3^-f_7^-f_{10}^-f_{11}^--f_1^-f_7^-f_{10}^-f_{11}^-f_4^+}{(-E_7+E_5)(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_7+E_8)(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_{10}^-f_{11}^-f_8^+-f_3^-f_4^-f_9^-f_{10}^-f_8^+}{(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_{10}+E_2)(-E_3-E_4+E_1+E_{10})(-E_{11}+E_9)}\\
\frac{+f_1^-f_9^-f_{10}^-f_4^+f_8^++f_1^-f_3^-f_9^-f_{10}^-f_8^+-f_1^-f_3^-f_{10}^-f_{11}^-f_8^+-f_1^-f_{10}^-f_{11}^-f_4^+f_8^+}{(-E_{10}+E_2)(-E_1-E_{10}+E_3+E_4)(-E_1-E_{10}+E_5+E_8)(-E_1-E_{10}+E_7+E_8)(-E_9+E_{11})}
\end{array}\right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|7,6\}\{7,8|V|9,12\}\{9,10|V|1,10\}\{11,12|V|11,2\}f_6^-f_{10}^-f_{11}^-\begin{pmatrix}
\frac{+f_1^-f_2^-f_5^-f_4^+ + f_1^-f_2^-f_3^-f_5^-}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_1-E_2+E_5+E_8)(-E_1+E_9)(-E_2+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_5^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_1+E_9)(-E_3-E_4+E_1+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_2+E_9)(-E_2+E_{12})}\\
\frac{+f_1^-f_2^-f_7^-f_4^+ + f_1^-f_2^-f_3^-f_7^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_1-E_2+E_7+E_8)(-E_1+E_9)(-E_2+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_7^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_1+E_9)(-E_3-E_4+E_1+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_2+E_9)(-E_2+E_{12})}\\
\frac{+f_1^-f_2^-f_4^+f_8^+ + f_1^-f_2^-f_3^-f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_2+E_7+E_8)(-E_1+E_9)(-E_2+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_1+E_9)(-E_3-E_4+E_1+E_{12})}\\
\frac{+f_3^-f_4^-f_2^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_2+E_9)(-E_2+E_{12})}\\
\frac{+f_1^-f_5^-f_8^-f_4^+ + f_1^-f_3^-f_5^-f_8^-}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_1+E_9)(-E_5-E_8+E_1+E_{12})}\\
\frac{+f_5^-f_8^-f_2^+f_4^+ + f_3^-f_5^-f_8^-f_2^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_2+E_9)(-E_2+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_9^-}{(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_9+E_1)(-E_3-E_4+E_2+E_9)(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_3^-f_5^-f_8^-f_9^- + f_5^-f_8^-f_9^-f_4^+}{(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_9+E_1)(-E_5-E_8+E_2+E_9)(-E_5-E_8+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_{12}^+}{(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_5^-f_8^-f_4^+f_{12}^+ + f_3^-f_5^-f_8^-f_{12}^+}{(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_{12}+E_2)(-E_5-E_8+E_1+E_{12})(-E_5-E_8+E_9+E_{12})}\\
\frac{+f_1^-f_3^-f_7^-f_8^- + f_1^-f_7^-f_8^-f_4^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_1+E_9)(-E_7-E_8+E_1+E_{12})}\\
\frac{+f_3^-f_7^-f_8^-f_2^+ + f_7^-f_8^-f_2^+f_4^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_2+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_9^-}{(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_9+E_1)(-E_3-E_4+E_2+E_9)(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_3^-f_7^-f_8^-f_9^- + f_7^-f_8^-f_9^-f_4^+}{(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_9+E_1)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{12}^+}{(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_3^-f_7^-f_8^-f_{12}^+ + f_7^-f_8^-f_4^+f_{12}^+}{(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_{12}+E_2)(-E_7-E_8+E_1+E_{12})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_9^- + f_2^-f_5^-f_9^-f_4^+}{(-E_5+E_7)(-E_9+E_1)(-E_2-E_9+E_3+E_4)(-E_2-E_9+E_5+E_8)(-E_2+E_{12})}\\
\frac{+f_2^-f_3^-f_7^-f_9^- + f_2^-f_7^-f_9^-f_4^+}{(-E_7+E_5)(-E_9+E_1)(-E_2-E_9+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_2+E_{12})}\\
\frac{+f_1^-f_5^-f_{12}^-f_4^+ + f_1^-f_3^-f_5^-f_{12}^-}{(-E_5+E_7)(-E_1+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_8)}\\
\frac{+f_1^-f_7^-f_{12}^-f_4^+ + f_1^-f_3^-f_7^-f_{12}^-}{(-E_7+E_5)(-E_1+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_7+E_8)}\\
\frac{+f_3^-f_5^-f_9^-f_{12}^- + f_5^-f_9^-f_{12}^-f_4^+}{(-E_5+E_7)(-E_9+E_1)(-E_{12}+E_2)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f_3^-f_7^-f_9^-f_{12}^- + f_7^-f_9^-f_{12}^-f_4^+}{(-E_7+E_5)(-E_9+E_1)(-E_{12}+E_2)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_3^-f_4^-f_9^-f_8^+}{(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_9+E_1)(-E_3-E_4+E_2+E_9)(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_8^+f_{12}^+}{(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_2^-f_3^-f_9^-f_8^+ + f_2^-f_9^-f_4^+f_8^+}{(-E_9+E_1)(-E_2-E_9+E_3+E_4)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_2+E_{12})}\\
\frac{+f_1^-f_3^-f_{12}^-f_8^+ + f_1^-f_{12}^-f_4^+f_8^+}{(-E_1+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_8)(-E_1-E_{12}+E_7+E_8)}\\
\frac{+f_9^-f_{12}^-f_4^+f_8^+ + f_3^-f_9^-f_{12}^-f_8^+}{(-E_9+E_1)(-E_{12}+E_2)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)}
\end{pmatrix}$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|7,6\}\{7,8|V|9,12\}\{9,10|V|11,2\}\{11,12|V|1,10\}f_6^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- - f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_9^+ - f_1^- f_2^- f_3^- f_5^- f_{11}^- f_9^+}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_1-E_2+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- + f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_1-E_2+E_5+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_5^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- - f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_1-E_2+E_5+E_8)(-E_1-E_2+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- - f_2^- f_3^- f_4^- f_5^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_1^+ - f_3^- f_4^- f_5^- f_{11}^- f_1^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_1^+ - f_3^- f_4^- f_5^- f_{10}^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_9+E_{12})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- + f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_9^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_9^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_1-E_2+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- + f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_1-E_2+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_7^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_1-E_2+E_7+E_8)(-E_1-E_2+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- - f_2^- f_3^- f_4^- f_7^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ - f_3^- f_4^- f_7^- f_{11}^- f_1^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_1^+ - f_3^- f_4^- f_7^- f_{10}^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{12})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_8^+ - f_1^- f_2^- f_3^- f_{11}^- f_8^+ f_9^+ - f_1^- f_2^- f_{11}^- f_4^+ f_8^+ f_9^+ + f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_2+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_2+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_{11}^- f_{12}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_{11}^- f_{12}^- f_8^+ - f_1^- f_2^- f_{10}^- f_4^+ f_8^+ f_{12}^+ - f_1^- f_2^- f_3^- f_{10}^- f_8^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_2+E_7+E_8)(-E_1-E_2+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- f_8^+ - f_2^- f_3^- f_4^- f_{11}^- f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_{10}^- f_{11}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_8^+ - f_3^- f_4^- f_{11}^- f_1^+ f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_1^+ f_8^+ - f_3^- f_4^- f_{10}^- f_1^+ f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_{11}^- f_{12}^- f_8^+ - f_2^- f_3^- f_4^- f_{10}^- f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{12})(-E_2-E_{11}-E_{12}+E_3+E_4+E_{10})} \\
\frac{+f_2^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ - f_2^- f_5^- f_8^- f_{11}^- f_4^+ f_9^+ + f_2^- f_3^- f_5^- f_8^- f_9^- f_{10}^- - f_2^- f_3^- f_5^- f_8^- f_{11}^- f_9^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_{10}^- f_{11}^- f_4^+ + f_2^- f_3^- f_5^- f_8^- f_{10}^- f_{11}^-}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_8^- f_{11}^- f_1^+ f_9^+ - f_5^- f_8^- f_9^- f_{10}^- f_1^+ f_4^+ + f_5^- f_8^- f_{11}^- f_1^+ f_4^+ f_9^+ - f_3^- f_5^- f_8^- f_9^- f_{10}^- f_1^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_8-E_{11}+E_1+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_5^- f_8^- f_{10}^- f_{11}^- f_1^+ f_4^+ + f_3^- f_5^- f_8^- f_{10}^- f_{11}^- f_1^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_8-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_5^- f_8^- f_{10}^- f_1^+ f_4^+ f_{12}^+ - f_5^- f_8^- f_{11}^- f_{12}^- f_1^+ f_4^+ - f_3^- f_5^- f_8^- f_{11}^- f_{12}^- f_1^+ + f_3^- f_5^- f_8^- f_{10}^- f_1^+ f_{12}^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_{10}^- f_4^+ f_{12}^+ + f_2^- f_3^- f_5^- f_8^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^- - f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_9+E_{12})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_3^- f_5^- f_8^- f_9^- f_{10}^- f_{11}^+ + f_5^- f_8^- f_9^- f_{10}^- f_4^+ f_{11}^+}{(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_8-E_{11}+E_1+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^- f_{11}^+ f_{12}^+}{(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_5^- f_8^- f_{10}^- f_4^+ f_{11}^+ f_{12}^+ + f_3^- f_5^- f_8^- f_{10}^- f_{11}^+ f_{12}^+}{(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+ - f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- - f_2^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ + f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ + f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_9^- f_{10}^- f_1^+ + f_7^- f_8^- f_9^- f_{10}^- f_1^+ f_4^+ - f_7^- f_8^- f_{11}^- f_1^+ f_4^+ f_9^+ - f_3^- f_7^- f_8^- f_{11}^- f_1^+ f_9^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_1-E_9-E_{10}+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_7^- f_8^- f_{10}^- f_{11}^- f_1^+ f_4^+ + f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_1^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8-E_{11}+E_1+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_1^+ + f_7^- f_8^- f_{11}^- f_{12}^- f_1^+ f_4^+ - f_3^- f_7^- f_8^- f_{10}^- f_1^+ f_{12}^+ - f_7^- f_8^- f_{10}^- f_1^+ f_4^+ f_{12}^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ + f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_9^- f_{10}^- f_{11}^+ + f_7^- f_8^- f_9^- f_{10}^- f_4^+ f_{11}^+}{(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_7-E_8-E_{11}+E_1+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^+ f_{12}^+}{(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_7^- f_8^- f_{10}^- f_4^+ f_{11}^+ f_{12}^+ + f_3^- f_7^- f_8^- f_{10}^- f_{11}^+ f_{12}^+}{(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_9^- f_{10}^- f_4^+ f_{11}^+ + f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_5+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_1-E_9-E_{10}+E_5+E_8+E_{11})(-E_1-E_{10}+E_{11}+E_{12})}
\end{array} \right)$$

$$
+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|1,8\}\{7,8|V|7,10\}\{9,10|V|11,6\}\{11,12|V|9,2\}f_7^-
\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- - f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_6+E_1+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- - f_3^- f_4^- f_5^- f_6^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_5-E_6+E_1+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- - f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- - f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ + f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- - f_1^- f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_6^+ - f_1^- f_2^- f_8^- f_9^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_8^- f_{11}^- f_6^+ - f_1^- f_2^- f_3^- f_8^- f_9^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_6-E_{11}+E_8+E_9)(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_{11}^- f_6^+ - f_1^- f_3^- f_4^- f_8^- f_9^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_6-E_{11}+E_8+E_9)(-E_3-E_4-E_6+E_1+E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_2-E_5-E_6+E_3+E_4+E_{10})(-E_2-E_5-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_8+E_{10})(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_6^+ - f_3^- f_4^- f_8^- f_9^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_8+E_{10})(-E_6-E_{11}+E_8+E_9)(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- - f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ + f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_1-E_{11}+E_5+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- - f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_5-E_9+E_1+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_6^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4-E_6+E_1+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_{10}+E_8)(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_6^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_{10}+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_9^+ + f_1^- f_2^- f_3^- f_8^- f_{11}^- f_9^+}{(-E_1-E_2+E_3+E_4)(-E_8+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_8-E_9+E_6+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_8+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_8-E_9+E_6+E_{11})(-E_3-E_4-E_9+E_1+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_9^+ + f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_9^+}{(-E_1-E_2+E_3+E_4)(-E_{10}+E_8)(-E_1-E_{11}+E_5+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_{10}+E_8)(-E_1-E_{11}+E_5+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_9+E_1+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_8+E_{10})(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_8-E_9+E_6+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_{10}+E_8)(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_{11}^- f_{12}^+ + f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_8^- f_9^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_8^- f_9^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_8+E_{10})(-E_1-E_2+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^+ + f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_{10}+E_8)(-E_1-E_2+E_5+E_{12})(-E_{10}-E_{12}+E_2+E_6)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_8^- f_9^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_8+E_{10})(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_{11}^- f_{12}^+ - f_1^- f_3^- f_4^- f_8^- f_9^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_8+E_{10})(-E_3-E_4+E_5+E_{12})(-E_1-E_8-E_{12}+E_3+E_4+E_6)(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_9^- f_{10}^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_{10}+E_8)(-E_3-E_4+E_5+E_{12})(-E_{10}-E_{12}+E_2+E_6)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^+ - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_{10}+E_8)(-E_3-E_4+E_5+E_{12})(-E_1-E_{10}-E_{12}+E_3+E_4+E_6)(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_{11}^- f_9^+ + f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{11}+E_5+E_9)(-E_6-E_{11}+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{11}+E_5+E_9)(-E_6-E_{11}+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4-E_9+E_1+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_6-E_{11}+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_6^- f_9^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_6^- f_9^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_2-E_6+E_8+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_9^- f_{12}^+ - f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_2-E_6+E_8+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_6^- f_9^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_1+E_8+E_{12})(-E_3-E_4-E_6+E_1+E_{10}+E_{12})(-E_1-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_8+E_{10})(-E_8-E_9+E_6+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ - f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ + f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_8+E_{10})(-E_6-E_{11}+E_8+E_9)(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- - f_3^- f_5^- f_6^- f_9^- f_{12}^- f_1^+ - f_5^- f_6^- f_9^- f_{12}^- f_1^+ f_4^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6+E_1+E_{10})(-E_1-E_{11}+E_5+E_9)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_1^- f_3^- f_5^- f_8^- f_9^- f_{12}^- + f_1^- f_5^- f_8^- f_9^- f_{12}^- f_4^+ - f_1^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^-}{(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_5-E_9+E_1+E_{11})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+ - f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^- - f_5^- f_6^- f_8^- f_9^- f_{12}^- f_4^+ + f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_8+E_{10})(-E_6-E_{11}+E_8+E_9)(-E_5-E_{12}+E_3+E_4)(-E_8-E_{12}+E_2+E_6)} \\
\frac{+f_1^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ + f_1^- f_3^- f_8^- f_9^- f_{12}^- f_6^+ - f_1^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ - f_1^- f_3^- f_8^- f_{11}^- f_{12}^- f_6^+}{(-E_1-E_8+E_5+E_6)(-E_8+E_{10})(-E_8-E_9+E_6+E_{11})(-E_8-E_{12}+E_2+E_6)(-E_1-E_8-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{10}^+}{(-E_5-E_6+E_1+E_{10})(-E_3-E_4-E_{10}+E_2+E_5+E_6)(-E_{10}+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_4^+ f_{10}^+ - f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{10}^+ - f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_{10}^+ + f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^+}{(-E_5-E_6+E_1+E_{10})(-E_2-E_5-E_6+E_3+E_4+E_{10})(-E_{10}+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^-}{(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_1-E_{11}+E_5+E_9)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+}{(-E_5-E_6+E_1+E_{10})(-E_{10}+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{10}-E_{12}+E_2+E_6)} \\
\frac{+f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ + f_1^- f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_3^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_1-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_{10}-E_{12}+E_2+E_6)(-E_1-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_{11}^+}{(-E_8+E_{10})(-E_5-E_9+E_1+E_{11})(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_8-E_9+E_6+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_8^- f_9^- f_{11}^+ + f_2^- f_5^- f_8^- f_9^- f_4^+ f_{11}^+}{(-E_8+E_{10})(-E_5-E_9+E_1+E_{11})(-E_2-E_5-E_9+E_3+E_4+E_{11})(-E_8-E_9+E_6+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_{10}+E_8)(-E_5-E_9+E_1+E_{11})(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_{11}^+ + f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_{10}+E_8)(-E_5-E_9+E_1+E_{11})(-E_2-E_5-E_9+E_3+E_4+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_2-E_9+E_{11}+E_{12})}
\end{array}\right.
$$

$$+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,12\}\{7,8|V|9,6\}\{9,10|V|1,8\}\{11,12|V|11,2\}f_{11}^{-}\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- - f_1^- f_2^- f_5^- f_6^- f_8^- f_4^+ + f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- - f_1^- f_2^- f_5^- f_7^- f_9^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_9+E_5+E_8)(-E_1-E_2+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_2^+ - f_2^- f_3^- f_4^- f_5^- f_7^- f_8^- - f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- + f_2^- f_3^- f_4^- f_5^- f_7^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ f_6^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_6^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_6^+ - f_1^- f_2^- f_7^- f_9^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_1-E_6+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_6^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_1^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_1^+ - f_1^- f_3^- f_4^- f_5^- f_6^- f_8^- - f_3^- f_4^- f_5^- f_7^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_1^+ f_6^+ - f_3^- f_4^- f_7^- f_9^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_1-E_6+E_7+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_8^+ + f_1^- f_2^- f_6^- f_9^- f_4^+ f_8^+ - f_1^- f_2^- f_7^- f_9^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_9^- f_8^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_1^+ f_8^+ - f_3^- f_4^- f_7^- f_9^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_1-E_8+E_9+E_{10})(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^+ - f_1^- f_2^- f_3^- f_6^- f_8^- f_{10}^+ + f_1^- f_2^- f_7^- f_8^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^+ - f_1^- f_2^- f_6^- f_8^- f_4^+ f_{10}^+ + f_1^- f_2^- f_6^- f_9^- f_4^+ f_{10}^+ - f_1^- f_2^- f_7^- f_9^- f_4^+ f_{10}^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_1^+ f_{10}^+ + f_3^- f_4^- f_7^- f_8^- f_1^+ f_{10}^+ - f_1^- f_3^- f_4^- f_6^- f_8^- f_{10}^+ - f_3^- f_4^- f_7^- f_9^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_6+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_3-E_4+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^+ - f_3^- f_4^- f_6^- f_8^- f_2^+ f_{10}^+ + f_2^- f_3^- f_4^- f_6^- f_9^- f_{10}^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_7^+ - f_3^- f_4^- f_5^- f_6^- f_7^- f_8^-}{(-E_5-E_6+E_2+E_7)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_4^+ f_7^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_7^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_7^+ - f_1^- f_5^- f_6^- f_8^- f_4^+ f_7^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_6-E_9+E_7+E_8)(-E_1-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- + f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- - f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ + f_3^- f_5^- f_6^- f_8^- f_{10}^- f_2^+ - f_2^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ + f_5^- f_6^- f_8^- f_{10}^- f_2^+ f_4^+ - f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_2-E_7+E_5+E_6)(-E_2-E_9+E_5+E_8)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_2+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_8^- f_{10}^- f_4^+ + f_3^- f_5^- f_6^- f_7^- f_8^- f_{10}^- - f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_7^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_7-E_8+E_6+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_1+E_6)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ - f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+ + f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_2-E_7+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_1+E_6)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- - f_3^- f_4^- f_5^- f_7^- f_8^- f_9^+}{(-E_5-E_8+E_2+E_9)(-E_3-E_4-E_9+E_1+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_5^- f_7^- f_8^- f_4^+ f_9^+ - f_1^- f_5^- f_6^- f_8^- f_4^+ f_9^+ + f_1^- f_3^- f_5^- f_7^- f_8^- f_9^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_9^+}{(-E_5-E_8+E_2+E_9)(-E_1-E_5-E_8+E_3+E_4+E_9)(-E_7-E_8+E_6+E_9)(-E_1-E_8+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_9^- f_{10}^- f_4^+ + f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^- - f_3^- f_5^- f_7^- f_8^- f_{10}^- f_9^+ - f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_9^+}{(-E_5-E_8+E_2+E_9)(-E_6-E_9+E_7+E_8)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_1+E_8)(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ - f_2^- f_3^- f_7^- f_9^- f_{10}^- f_8^+ + f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ - f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_2-E_9+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_1+E_8)(-E_2-E_9-E_{10}+E_3+E_4+E_8)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{10}^+ - f_3^- f_4^- f_6^- f_9^- f_7^+ f_{10}^+}{(-E_7-E_8+E_6+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_{10}^+ - f_3^- f_4^- f_7^- f_8^- f_9^+ f_{10}^+}{(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_3-E_4-E_8+E_2+E_9+E_{10})(-E_3-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_7^- f_8^- f_{12}^- f_4^+ f_6^+ - f_1^- f_7^- f_9^- f_{12}^- f_4^+ f_6^+ + f_1^- f_3^- f_7^- f_8^- f_{12}^- f_6^+ - f_1^- f_3^- f_7^- f_9^- f_{12}^- f_6^+}{(-E_7-E_8+E_6+E_9)(-E_1-E_6+E_7+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_7^- f_8^- f_{10}^- f_{12}^- f_4^+ f_6^+ - f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ + f_3^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+}{(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_1+E_6)(-E_{12}+E_2)(-E_7-E_{12}+E_5+E_6)(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_1^- f_3^- f_7^- f_9^- f_{12}^- f_8^+ - f_1^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+ + f_1^- f_7^- f_9^- f_{12}^- f_4^+ f_8^+ - f_1^- f_3^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_7-E_8+E_6+E_9)(-E_1-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_8)} \\
\frac{+f_3^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ + f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ - f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ - f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_1+E_8)(-E_{12}+E_2)(-E_9-E_{12}+E_5+E_8)(-E_9-E_{10}-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{12}^- f_6^+ - f_3^- f_4^- f_7^- f_8^- f_{12}^- f_6^+}{(-E_6-E_9+E_7+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{12}^- f_8^+ - f_3^- f_4^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_7-E_8+E_6+E_9)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_9-E_{12}+E_5+E_8)(-E_3-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_1^+ f_4^+ - f_3^- f_5^- f_7^- f_9^- f_{10}^- f_1^+ - f_5^- f_7^- f_9^- f_{10}^- f_1^+ f_4^+ - f_1^- f_5^- f_6^- f_8^- f_{10}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- + f_3^- f_5^- f_6^- f_9^- f_{10}^- f_1^+ + f_5^- f_7^- f_8^- f_{10}^- f_1^+ f_4^+ + f_3^- f_5^- f_7^- f_8^- f_{10}^- f_1^+}{(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_1-E_6+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_5-E_{10}+E_1+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^- - f_3^- f_4^- f_5^- f_7^- f_9^- f_{12}^- + f_3^- f_4^- f_5^- f_7^- f_8^- f_{12}^- - f_3^- f_4^- f_5^- f_6^- f_8^- f_{12}^+}{(-E_3-E_4+E_5+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_5-E_6+E_7+E_{12})(-E_9-E_{12}+E_5+E_8)} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{12}^- f_{10}^+ + f_3^- f_4^- f_7^- f_8^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_7^- f_9^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_6^- f_8^- f_{10}^+ f_{12}^+}{(-E_3-E_4+E_5+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_9-E_{10}-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_5^- f_6^- f_8^- f_{10}^- f_4^+ f_{12}^+ - f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- + f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- - f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^+ - f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- + f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_2)(-E_5-E_6+E_7+E_{12})(-E_5-E_8+E_9+E_{12})(-E_5-E_{10}+E_1+E_{12})} \\
\frac{+f_1^- f_6^- f_9^- f_{12}^- f_4^+ f_{10}^+ - f_1^- f_3^- f_7^- f_9^- f_{12}^- f_{10}^+ - f_1^- f_7^- f_9^- f_{12}^- f_4^+ f_{10}^+ + f_1^- f_3^- f_6^- f_9^- f_{12}^- f_{10}^+ - f_1^- f_6^- f_8^- f_{12}^- f_4^+ f_{10}^+ + f_1^- f_7^- f_8^- f_{12}^- f_4^+ f_{10}^+ + f_1^- f_3^- f_7^- f_8^- f_{12}^- f_{10}^+ - f_1^- f_3^- f_6^- f_8^- f_{12}^- f_{10}^+}{(-E_1-E_6+E_7+E_{10})(-E_9-E_{10}+E_1+E_8)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_1-E_{12}+E_5+E_{10})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- - f_1^- f_3^- f_5^- f_7^- f_9^- f_{12}^- - f_1^- f_5^- f_7^- f_9^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{12}^- - f_1^- f_5^- f_6^- f_8^- f_{12}^- f_4^+ + f_1^- f_3^- f_5^- f_7^- f_8^- f_{12}^- + f_1^- f_5^- f_7^- f_8^- f_{12}^- f_4^+}{(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_9-E_{12}+E_5+E_8)(-E_1-E_{12}+E_5+E_{10})}
\end{array}\right)$$

$$\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- - f_1^- f_2^- f_5^- f_6^- f_7^- f_8^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_5-E_8+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^- - f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_5-E_8+E_2+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- - f_1^- f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_9+E_7+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- - f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_9+E_7+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_1-E_2-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_2-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_8^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_5-E_8+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_5-E_8+E_2+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_8^+ + f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6-E_8+E_2+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- f_8^+ - f_1^- f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_2^- f_6^- f_7^- f_{11}^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_2-E_{11}+E_5+E_8)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- - f_2^- f_3^- f_4^- f_6^- f_7^- f_{11}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_2-E_{11}+E_5+E_8)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^- f_8^+ - f_1^- f_2^- f_6^- f_9^- f_{11}^- f_4^+ f_8^+ + f_1^- f_2^- f_9^- f_{10}^- f_{11}^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_5+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_8^+ - f_2^- f_3^- f_4^- f_6^- f_9^- f_{11}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_5+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- f_9^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^- - f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_2^- f_6^- f_7^- f_{11}^- f_4^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_7-E_{11}+E_5+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_1-E_2-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_{11}^- f_9^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_7-E_{11}+E_5+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_6^- f_7^- f_8^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_1+E_2+E_6)(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^+ + f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+ f_{12}^+ - f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{12})(-E_1-E_2-E_6+E_7+E_{10}+E_{12})(-E_1-E_2-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_8^+ f_{12}^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_8^+ f_{12}^+ - f_1^- f_2^- f_6^- f_9^- f_4^+ f_8^+ f_{12}^+ - f_1^- f_2^- f_3^- f_6^- f_9^- f_8^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_5+E_{12})(-E_9-E_{10}-E_{12}+E_1+E_6+E_8)(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_4-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{10}^- f_8^+ f_{12}^+ - f_2^- f_3^- f_4^- f_6^- f_9^- f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_2-E_9-E_{10}-E_{12}+E_3+E_4+E_6+E_8)(-E_3-E_4-E_8+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^- f_1^+ - f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_7-E_{10}+E_5+E_6)(-E_1-E_5-E_8+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- f_1^+ - f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_9+E_7+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_7-E_{10}+E_5+E_6)(-E_1-E_7-E_8-E_{10}+E_3+E_4+E_6+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_1^+ f_8^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_9-E_{10}+E_1+E_5+E_6+E_8)(-E_1-E_5-E_8+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_6^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_9-E_{10}+E_1+E_5+E_6+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_1^+ f_8^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4-E_{11}+E_1+E_5+E_8)(-E_3-E_4-E_6-E_{11}+E_1+E_7+E_8+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{11}^- f_1^+ f_8^+ - f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_1^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_{11}+E_1+E_5+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^- f_1^+ - f_3^- f_4^- f_6^- f_7^- f_{11}^- f_1^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_7-E_{11}+E_5+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_1^+ f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_8^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_1^+ f_{12}^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_4-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_1^+ f_8^+ f_{12}^+ - f_3^- f_4^- f_6^- f_9^- f_1^+ f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_9-E_{10}-E_{12}+E_1+E_6+E_8)(-E_1-E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_{10}^+ + f_1^- f_2^- f_5^- f_6^- f_8^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_5-E_8+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_5-E_8+E_2+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_1-E_5-E_6-E_8+E_3+E_4+E_9+E_{10})(-E_1-E_5-E_8+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_3-E_4-E_9-E_{10}+E_1+E_5+E_6+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- + f_1^- f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ - f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_5^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_2-E_{11}+E_5+E_8)(-E_7-E_{11}+E_5+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- - f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_2-E_{11}+E_5+E_8)(-E_7-E_{11}+E_5+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_2-E_{11}+E_5+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_2-E_{11}+E_5+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- f_1^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_3-E_4-E_{11}+E_1+E_5+E_8)(-E_7-E_{11}+E_5+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_1^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_3-E_4-E_{11}+E_1+E_5+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}
\end{array}\right)$$

$$+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|9,12\}\{9,10|V|7,2\}\{11,12|V|11,10\}f_5^- f_{11}^- \begin{pmatrix}
\frac{+f_1^- f_2^- f_7^- f_4^+ f_9^+ + f_1^- f_2^- f_3^- f_7^- f_9^+ - f_2^- f_3^- f_4^- f_7^- f_9^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_2-E_7+E_9+E_{10})(-E_2-E_7+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- - f_1^- f_2^- f_7^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- + f_2^- f_3^- f_4^- f_7^- f_{10}^- - f_2^- f_3^- f_4^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_9-E_{10}+E_2+E_7)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{12}^- - f_2^- f_3^- f_4^- f_7^- f_{12}^- - f_1^- f_2^- f_3^- f_9^- f_{12}^- + f_2^- f_3^- f_4^- f_9^- f_{12}^- + f_1^- f_2^- f_7^- f_{12}^- f_4^+ - f_1^- f_2^- f_9^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2+E_8)(-E_2-E_7+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_1^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_3-E_4-E_7+E_1+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_1^+ - f_3^- f_4^- f_9^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_1^+ - f_3^- f_4^- f_9^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^+ - f_1^- f_3^- f_6^- f_7^- f_9^+ - f_1^- f_6^- f_7^- f_4^+ f_9^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_6-E_7+E_9+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_{10}^- f_4^+ - f_1^- f_6^- f_9^- f_{10}^- f_4^+ - f_1^- f_3^- f_6^- f_9^- f_{10}^- - f_3^- f_4^- f_6^- f_7^- f_{10}^- + f_1^- f_3^- f_6^- f_7^- f_{10}^- + f_3^- f_4^- f_6^- f_9^- f_{10}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_1^- f_6^- f_9^- f_{12}^- f_4^+ + f_3^- f_4^- f_6^- f_7^- f_{12}^- - f_1^- f_6^- f_7^- f_{12}^- f_4^+ - f_3^- f_4^- f_6^- f_9^- f_{12}^- + f_1^- f_3^- f_6^- f_9^- f_{12}^- - f_1^- f_3^- f_6^- f_7^- f_{12}^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_9-E_{12}+E_6+E_7)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_7^- f_8^- f_4^+ f_9^+ - f_3^- f_4^- f_7^- f_8^- f_9^+ + f_1^- f_3^- f_7^- f_8^- f_9^+}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_8^- f_9^- f_{10}^- f_4^+ - f_3^- f_4^- f_8^- f_9^- f_{10}^- - f_1^- f_3^- f_7^- f_8^- f_{10}^- - f_1^- f_7^- f_8^- f_{10}^- f_4^+ + f_3^- f_4^- f_7^- f_8^- f_{10}^- + f_1^- f_3^- f_8^- f_9^- f_{10}^-}{(-E_8+E_2)(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{12}^- - f_1^- f_8^- f_9^- f_{12}^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_{12}^- + f_1^- f_3^- f_7^- f_8^- f_{12}^- + f_1^- f_7^- f_8^- f_{12}^- f_4^+ - f_1^- f_3^- f_8^- f_9^- f_{12}^-}{(-E_8+E_2)(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_9^- f_{10}^- f_7^+ + f_1^- f_9^- f_{10}^- f_4^+ f_7^+ - f_3^- f_4^- f_9^- f_{10}^- f_7^+}{(-E_9-E_{10}+E_2+E_7)(-E_1-E_9-E_{10}+E_3+E_4+E_7)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_9^- f_{12}^- f_4^+ f_7^+ + f_1^- f_3^- f_9^- f_{12}^- f_7^+ - f_3^- f_4^- f_9^- f_{12}^- f_7^+}{(-E_9-E_{12}+E_2+E_7)(-E_1-E_9-E_{12}+E_3+E_4+E_7)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}
\end{pmatrix}$$

$$+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|9,2\}\{9,10|V|5,10\}\{11,12|V|11,8\}f_{10}^- f_{11}^- \begin{pmatrix}
\frac{+f_1^- f_2^- f_5^- f_4^+ f_7^+ - f_2^- f_3^- f_4^- f_5^- f_7^+ + f_1^- f_2^- f_3^- f_5^- f_7^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_5+E_9)(-E_2-E_5+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_8^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_8^- - f_2^- f_3^- f_4^- f_5^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_8)(-E_5+E_9)(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_8^- - f_3^- f_4^- f_7^- f_8^- f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_8+E_2+E_5)(-E_7-E_8+E_2+E_9)(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_9^- f_4^+ + f_1^- f_2^- f_3^- f_8^- f_9^- - f_2^- f_3^- f_4^- f_8^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9+E_5)(-E_2-E_9+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_9^- f_7^+ + f_1^- f_2^- f_9^- f_4^+ f_7^+ - f_2^- f_3^- f_4^- f_9^- f_7^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9+E_5)(-E_2-E_9+E_7+E_8)(-E_2-E_9+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_{12}^- - f_1^- f_2^- f_5^- f_{12}^- f_4^+}{(-E_3-E_4+E_1+E_2)(-E_2+E_6)(-E_5+E_9)(-E_2-E_5+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_1^- f_2^- f_9^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_9^- f_{12}^- - f_2^- f_3^- f_4^- f_9^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_9+E_5)(-E_{12}+E_8)(-E_2-E_9+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_{12}^- - f_3^- f_4^- f_7^- f_{12}^- f_2^+}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_7-E_{12}+E_2+E_5)(-E_{12}+E_8)(-E_7-E_{12}+E_2+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_1^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_5+E_9)(-E_3-E_4-E_5+E_1+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_8)(-E_5+E_9)(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_1^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_3-E_4-E_9+E_1+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_5+E_9)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_{12}+E_8)(-E_3-E_4-E_9+E_1+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_{12}+E_8)(-E_1-E_7-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^+ + f_1^- f_5^- f_6^- f_4^+ f_7^+ - f_3^- f_4^- f_5^- f_6^- f_7^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5+E_9)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- - f_1^- f_5^- f_6^- f_8^- f_4^+ - f_1^- f_3^- f_5^- f_6^- f_8^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_8)(-E_5+E_9)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_6^+ - f_1^- f_3^- f_6^- f_7^- f_8^- - f_1^- f_6^- f_7^- f_8^- f_4^+}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_8^- f_9^- + f_1^- f_6^- f_8^- f_9^- f_4^+ - f_3^- f_4^- f_6^- f_8^- f_9^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9+E_5)(-E_6-E_9+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_9^- f_7^+ + f_1^- f_6^- f_9^- f_4^+ f_7^+ - f_3^- f_4^- f_6^- f_9^- f_7^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_9+E_5)(-E_6-E_9+E_7+E_8)(-E_6-E_9+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_{12}^- - f_3^- f_4^- f_5^- f_6^- f_{12}^- + f_1^- f_5^- f_6^- f_{12}^- f_4^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5+E_9)(-E_5-E_6+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{12}^- - f_1^- f_6^- f_9^- f_{12}^- f_4^+ - f_1^- f_3^- f_6^- f_9^- f_{12}^-}{(-E_6+E_2)(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_{12}+E_8)(-E_6-E_9+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_{12}^- + f_1^- f_6^- f_7^- f_{12}^- f_4^+ - f_3^- f_4^- f_7^- f_{12}^- f_6^+}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_6+E_9)} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_5^+ - f_3^- f_4^- f_5^- f_7^- f_8^- + f_1^- f_7^- f_8^- f_4^+ f_5^+}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_8+E_3+E_4+E_5)(-E_7-E_8+E_5+E_6)(-E_5+E_9)(-E_8+E_{12})} \\
\frac{+f_1^- f_7^- f_8^- f_4^+ f_9^+ - f_3^- f_4^- f_7^- f_8^- f_9^- + f_1^- f_3^- f_7^- f_8^- f_9^+}{(-E_9+E_5)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_7-E_8+E_6+E_9)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{12}^- - f_1^- f_3^- f_7^- f_{12}^- f_5^+ - f_1^- f_7^- f_{12}^- f_4^+ f_5^+}{(-E_5+E_9)(-E_7-E_{12}+E_2+E_5)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_8)} \\
\frac{+f_1^- f_7^- f_{12}^- f_4^+ f_9^+ + f_1^- f_3^- f_7^- f_{12}^- f_9^+ - f_3^- f_4^- f_7^- f_9^- f_{12}^-}{(-E_9+E_5)(-E_{12}+E_8)(-E_7-E_{12}+E_2+E_9)(-E_1-E_7-E_{12}+E_3+E_4+E_9)(-E_7-E_{12}+E_6+E_9)}
\end{pmatrix}$$

$$+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|1,6\}\{9,10|V|9,8\}\{11,12|V|11,2\}f_9^- f_{11}^- \begin{pmatrix} \frac{+f_1^- f_2^- f_3^- f_6^- f_7^+ + f_1^- f_2^- f_6^- f_4^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_7+E_{10})(-E_2+E_{12})} \\ \frac{+f_1^- f_3^- f_4^- f_6^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_7+E_{10})(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ - f_1^- f_2^- f_6^- f_8^- f_4^+ - f_1^- f_2^- f_3^- f_6^- f_8^- + f_1^- f_2^- f_3^- f_7^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_7-E_8+E_1+E_6)(-E_8+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_8^- f_1^+ - f_1^- f_3^- f_4^- f_6^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_7-E_8+E_1+E_6)(-E_8+E_{10})(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- + f_1^- f_2^- f_7^- f_{10}^- f_4^+ - f_1^- f_2^- f_3^- f_6^- f_{10}^- - f_1^- f_2^- f_6^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_7-E_{10}+E_1+E_6)(-E_{10}+E_8)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_{10}^- f_1^+ - f_1^- f_3^- f_4^- f_6^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_7-E_{10}+E_1+E_6)(-E_{10}+E_8)(-E_3-E_4+E_1+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_2+E_{12})} \\ \frac{+f_2^- f_3^- f_4^- f_7^- f_8^- - f_3^- f_4^- f_6^- f_8^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_8+E_{10})(-E_2+E_{12})} \\ \frac{+f_2^- f_3^- f_4^- f_7^- f_{10}^- - f_3^- f_4^- f_6^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_{10}+E_8)(-E_2+E_{12})} \\ \frac{+f_2^- f_5^- f_6^- f_4^+ f_7^+ + f_2^- f_3^- f_5^- f_6^- f_7^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_5^- f_6^- f_7^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_4+E_5+E_{12})} \\ \frac{+f_2^- f_3^- f_5^- f_6^- f_8^- - f_2^- f_5^- f_7^- f_8^- f_4^+ - f_2^- f_3^- f_5^- f_7^- f_8^- + f_2^- f_5^- f_6^- f_8^- f_4^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_8+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_5^- f_6^- f_8^- - f_3^- f_4^- f_7^- f_8^- f_5^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_7+E_8)(-E_8+E_{10})(-E_3-E_4+E_5+E_{12})} \\ \frac{+f_2^- f_5^- f_6^- f_{10}^- f_4^+ - f_2^- f_3^- f_5^- f_7^- f_{10}^- + f_2^- f_3^- f_5^- f_6^- f_{10}^- - f_2^- f_5^- f_7^- f_{10}^- f_4^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_{10}+E_8)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_{10}^- f_5^+ - f_3^- f_4^- f_5^- f_6^- f_{10}^-}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_3-E_4+E_5+E_{12})} \\ \frac{+f_1^- f_3^- f_6^- f_{12}^- f_7^+ + f_1^- f_6^- f_{12}^- f_4^+ f_7^+}{(-E_1+E_5)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_7+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)} \\ \frac{+f_1^- f_3^- f_6^- f_8^- f_{12}^- + f_1^- f_6^- f_8^- f_{12}^- f_4^+ - f_1^- f_3^- f_7^- f_8^- f_{12}^- - f_1^- f_7^- f_8^- f_{12}^- f_4^+}{(-E_1+E_5)(-E_1-E_6+E_7+E_8)(-E_8+E_{10})(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)} \\ \frac{+f_3^- f_5^- f_6^- f_{12}^- f_7^+ + f_5^- f_6^- f_{12}^- f_4^+ f_7^+}{(-E_5+E_1)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_{12}+E_2)(-E_5-E_{12}+E_3+E_4)} \\ \frac{+f_3^- f_5^- f_6^- f_8^- f_{12}^- + f_5^- f_6^- f_8^- f_{12}^- f_4^+ - f_5^- f_7^- f_8^- f_{12}^- f_4^+ - f_3^- f_5^- f_7^- f_8^- f_{12}^-}{(-E_5+E_1)(-E_5-E_6+E_7+E_8)(-E_8+E_{10})(-E_{12}+E_2)(-E_5-E_{12}+E_3+E_4)} \\ \frac{+f_1^- f_3^- f_6^- f_{10}^- f_{12}^- - f_1^- f_7^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_3^- f_7^- f_{10}^- f_{12}^- + f_1^- f_6^- f_{10}^- f_{12}^- f_4^+}{(-E_1+E_5)(-E_1-E_6+E_7+E_{10})(-E_{10}+E_8)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_4)} \\ \frac{+f_3^- f_5^- f_7^- f_{10}^- f_{12}^- + f_5^- f_7^- f_{10}^- f_{12}^- f_4^+ - f_3^- f_5^- f_6^- f_{10}^- f_{12}^- - f_5^- f_6^- f_{10}^- f_{12}^- f_4^+}{(-E_5+E_1)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_{12}+E_2)(-E_5-E_{12}+E_3+E_4)} \\ \frac{+f_2^- f_3^- f_7^- f_8^- f_6^+ + f_2^- f_7^- f_8^- f_4^+ f_6^+}{(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_7-E_8+E_5+E_6)(-E_8+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_7^- f_8^-}{(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_7-E_8+E_5+E_6)(-E_8+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\ \frac{+f_7^- f_8^- f_{12}^- f_4^+ f_6^+ + f_3^- f_7^- f_8^- f_{12}^- f_6^+}{(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_5+E_6)(-E_8+E_{10})(-E_{12}+E_2)(-E_7-E_8-E_{12}+E_3+E_4+E_6)} \\ \frac{+f_2^- f_7^- f_{10}^- f_4^+ f_6^+ + f_2^- f_3^- f_7^- f_{10}^- f_6^+}{(-E_7-E_{10}+E_1+E_6)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^-}{(-E_7-E_{10}+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\ \frac{+f_3^- f_7^- f_{10}^- f_{12}^- f_6^+ + f_7^- f_{10}^- f_{12}^- f_4^+ f_6^+}{(-E_7-E_{10}+E_1+E_6)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_{12}+E_2)(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\ \frac{+f_3^- f_4^- f_7^- f_8^- f_{12}^- - f_3^- f_4^- f_6^- f_8^- f_{12}^+}{(-E_8+E_{10})(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_5+E_{12})(-E_7-E_8-E_{12}+E_3+E_4+E_6)} \\ \frac{+f_3^- f_4^- f_7^- f_{10}^- f_{12}^- - f_3^- f_4^- f_6^- f_{10}^- f_{12}^+}{(-E_{10}+E_8)(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\ \frac{+f_3^- f_4^- f_6^- f_7^+ f_{12}^+}{(-E_{12}+E_2)(-E_3-E_4+E_1+E_{12})(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \end{pmatrix}$$

$$+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,2\}\{5,6|V|7,12\}\{7,8|V|9,6\}\{9,10|V|1,10\}\{11,12|V|11,8\}f_{10}^- f_{11}^- \begin{pmatrix} \frac{+f_1^- f_2^- f_6^- f_4^+ f_7^+ - f_1^- f_3^- f_4^- f_6^- f_7^+ + f_1^- f_2^- f_3^- f_6^- f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_1-E_6+E_7+E_8)(-E_1+E_9)(-E_1-E_6+E_7+E_{12})} \\ \frac{+f_1^- f_2^- f_3^- f_7^- f_8^- - f_1^- f_3^- f_4^- f_7^- f_8^- + f_1^- f_2^- f_7^- f_8^- f_4^+ + f_1^- f_3^- f_4^- f_6^- f_8^- - f_1^- f_2^- f_6^- f_8^- f_4^+ - f_1^- f_2^- f_3^- f_6^- f_8^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_7-E_8+E_1+E_6)(-E_1+E_9)(-E_8+E_{12})} \\ \frac{+f_1^- f_3^- f_4^- f_6^- f_{12}^- + f_1^- f_2^- f_3^- f_7^- f_{12}^- - f_1^- f_2^- f_3^- f_6^- f_{12}^- - f_1^- f_2^- f_6^- f_{12}^- f_4^+ - f_1^- f_3^- f_4^- f_7^- f_{12}^- + f_1^- f_2^- f_7^- f_{12}^- f_4^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_1+E_9)(-E_1-E_6+E_7+E_{12})(-E_{12}+E_8)} \\ \frac{+f_3^- f_4^- f_6^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4+E_2+E_9)(-E_3-E_4-E_6+E_2+E_7+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_8^- f_2^+ - f_3^- f_4^- f_7^- f_8^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4+E_2+E_9)(-E_8+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_{12}^- f_2^+ - f_3^- f_4^- f_7^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_3-E_4+E_2+E_9)(-E_3-E_4-E_6+E_2+E_7+E_{12})(-E_{12}+E_8)} \\ \frac{+f_2^- f_3^- f_5^- f_6^- f_7^+ + f_2^- f_5^- f_6^- f_4^+ f_7^+ - f_3^- f_4^- f_5^- f_6^- f_7^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_7+E_8)(-E_5+E_9)(-E_5-E_6+E_7+E_{12})} \\ \frac{+f_2^- f_3^- f_5^- f_7^- f_8^- + f_3^- f_4^- f_5^- f_6^- f_8^- - f_2^- f_5^- f_6^- f_8^- f_4^+ - f_3^- f_4^- f_5^- f_7^- f_8^- + f_2^- f_5^- f_7^- f_8^- f_4^+ - f_2^- f_3^- f_5^- f_6^- f_8^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_7-E_8+E_5+E_6)(-E_5+E_9)(-E_8+E_{12})} \\ \frac{+f_2^- f_3^- f_5^- f_7^- f_{12}^- - f_3^- f_4^- f_5^- f_7^- f_{12}^- - f_2^- f_5^- f_6^- f_{12}^- f_4^+ - f_2^- f_3^- f_5^- f_6^- f_{12}^- + f_3^- f_4^- f_5^- f_6^- f_{12}^- + f_2^- f_5^- f_7^- f_{12}^- f_4^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_5+E_9)(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_8)} \\ \frac{+f_2^- f_7^- f_8^- f_4^+ f_6^+ - f_3^- f_4^- f_7^- f_8^- f_6^+ + f_2^- f_3^- f_7^- f_8^- f_6^+}{(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_7-E_8+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_8+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_8^- f_9^- - f_2^- f_3^- f_6^- f_8^- f_9^- - f_3^- f_4^- f_7^- f_8^- f_9^- - f_2^- f_6^- f_8^- f_9^- f_4^+ + f_2^- f_3^- f_7^- f_8^- f_9^- + f_2^- f_7^- f_8^- f_9^- f_4^+}{(-E_9+E_1)(-E_3-E_4+E_2+E_9)(-E_9+E_5)(-E_6-E_9+E_7+E_8)(-E_8+E_{12})} \\ \frac{+f_2^- f_3^- f_6^- f_9^- f_7^+ + f_2^- f_6^- f_9^- f_4^+ f_7^+ - f_3^- f_4^- f_6^- f_9^- f_7^+}{(-E_9+E_1)(-E_2-E_9+E_3+E_4)(-E_9+E_5)(-E_6-E_9+E_7+E_8)(-E_6-E_9+E_7+E_{12})} \\ \frac{+f_2^- f_3^- f_7^- f_9^- f_{12}^- + f_3^- f_4^- f_6^- f_9^- f_{12}^- - f_2^- f_6^- f_9^- f_{12}^- f_4^+ - f_2^- f_3^- f_6^- f_9^- f_{12}^- + f_2^- f_7^- f_9^- f_{12}^- f_4^+ - f_3^- f_4^- f_7^- f_9^- f_{12}^-}{(-E_9+E_1)(-E_2-E_9+E_3+E_4)(-E_9+E_5)(-E_{12}+E_8)(-E_7-E_{12}+E_6+E_9)} \\ \frac{+f_2^- f_7^- f_{12}^- f_4^+ f_6^+ - f_3^- f_4^- f_7^- f_{12}^- f_6^+ + f_2^- f_3^- f_7^- f_{12}^- f_6^+}{(-E_7-E_{12}+E_1+E_6)(-E_2-E_7-E_{12}+E_3+E_4+E_6)(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_6+E_9)} \end{pmatrix}$$

$$+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,2\}\{5,6|V|1,8\}\{7,8|V|9,12\}\{9,10|V|7,6\}\{11,12|V|11,10\}f_{11}^-\begin{pmatrix}
\frac{+f_1^-f_3^-f_4^-f_6^-f_7^-f_9^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_9^+-f_1^-f_2^-f_6^-f_7^-f_4^+f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_6-E_7+E_9+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_6^-f_9^-f_{10}^--f_1^-f_2^-f_3^-f_6^-f_9^-f_{10}^--f_1^-f_2^-f_6^-f_9^-f_{10}^-f_4^++f_1^-f_2^-f_6^-f_7^-f_{10}^-f_4^++f_1^-f_2^-f_3^-f_6^-f_7^-f_{10}^--f_1^-f_3^-f_4^-f_6^-f_7^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_6+E_8)(-E_9-E_{10}+E_6+E_7)(-E_{10}+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_8^-f_9^+-f_1^-f_3^-f_4^-f_7^-f_8^-f_9^++f_1^-f_2^-f_7^-f_8^-f_4^+f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_8^-f_9^-f_{10}^--f_1^-f_3^-f_4^-f_7^-f_8^-f_{10}^-+f_1^-f_2^-f_7^-f_8^-f_{10}^-f_4^+-f_1^-f_2^-f_3^-f_8^-f_9^-f_{10}^--f_1^-f_2^-f_8^-f_9^-f_{10}^-f_4^++f_1^-f_2^-f_3^-f_7^-f_8^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_8+E_6)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})}\\
\frac{+f_1^-f_2^-f_6^-f_9^-f_{12}^-f_4^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_{12}^-+f_1^-f_2^-f_3^-f_6^-f_9^-f_{12}^-+f_1^-f_3^-f_4^-f_6^-f_7^-f_{12}^--f_1^-f_2^-f_6^-f_7^-f_{12}^-f_4^+-f_1^-f_3^-f_4^-f_6^-f_9^-f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_5)(-E_6+E_8)(-E_9-E_{12}+E_6+E_7)(-E_{12}+E_{10})}\\
\frac{+f_1^-f_3^-f_4^-f_8^-f_9^-f_{12}^--f_1^-f_3^-f_4^-f_7^-f_8^-f_{12}^-+f_1^-f_2^-f_7^-f_8^-f_{12}^-f_4^++f_1^-f_2^-f_3^-f_7^-f_8^-f_{12}^--f_1^-f_2^-f_3^-f_8^-f_9^-f_{12}^--f_1^-f_2^-f_8^-f_9^-f_{12}^-f_4^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_8+E_6)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}\\
\frac{+f_1^-f_3^-f_4^-f_9^-f_{10}^-f_7^+-f_1^-f_2^-f_9^-f_{10}^-f_4^+f_7^+-f_1^-f_2^-f_3^-f_9^-f_{10}^-f_7^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_9^-f_{12}^-f_7^+-f_1^-f_2^-f_9^-f_{12}^-f_4^+f_7^+-f_1^-f_2^-f_3^-f_9^-f_{12}^-f_7^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_5)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_2^+f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_6-E_7+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_9^-f_{10}^-f_2^+-f_3^-f_4^-f_6^-f_7^-f_{10}^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_6+E_8)(-E_9-E_{10}+E_6+E_7)(-E_{10}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_2^+f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_8^-f_9^-f_{10}^-f_2^+-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_8+E_6)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_{12}^-f_2^+-f_3^-f_4^-f_6^-f_9^-f_{12}^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_6+E_8)(-E_6-E_7+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{12}^-f_2^+-f_3^-f_4^-f_8^-f_9^-f_{12}^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_8+E_6)(-E_7-E_8+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_2^+f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})}\\
\frac{+f_3^-f_4^-f_9^-f_{12}^-f_2^+f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_5)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_7^-f_9^+-f_2^-f_3^-f_5^-f_6^-f_7^-f_9^+-f_2^-f_5^-f_6^-f_7^-f_4^+f_9^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_6-E_7+E_9+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_6^-f_9^-f_{10}^--f_3^-f_4^-f_5^-f_6^-f_9^-f_{10}^-+f_2^-f_5^-f_6^-f_9^-f_{10}^-f_4^++f_3^-f_4^-f_5^-f_6^-f_7^-f_{10}^--f_2^-f_5^-f_6^-f_7^-f_{10}^-f_4^+-f_2^-f_3^-f_5^-f_6^-f_7^-f_{10}^-}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_6+E_8)(-E_9-E_{10}+E_6+E_7)(-E_{10}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_7^-f_8^-f_9^+-f_2^-f_3^-f_5^-f_7^-f_8^-f_9^+-f_2^-f_5^-f_7^-f_8^-f_4^+f_9^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_7^-f_8^-f_{10}^-+f_3^-f_4^-f_5^-f_8^-f_9^-f_{10}^--f_2^-f_5^-f_8^-f_9^-f_{10}^-f_4^+-f_2^-f_3^-f_5^-f_8^-f_9^-f_{10}^--f_3^-f_4^-f_5^-f_7^-f_8^-f_{10}^-+f_2^-f_5^-f_7^-f_8^-f_{10}^-f_4^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_6^-f_7^-f_{12}^--f_3^-f_4^-f_5^-f_6^-f_7^-f_{12}^-+f_2^-f_5^-f_6^-f_7^-f_{12}^-f_4^++f_3^-f_4^-f_5^-f_6^-f_9^-f_{12}^--f_2^-f_3^-f_5^-f_6^-f_9^-f_{12}^--f_2^-f_5^-f_6^-f_9^-f_{12}^-f_4^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_6+E_8)(-E_6-E_7+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_3^-f_4^-f_5^-f_8^-f_9^-f_{12}^-+f_2^-f_5^-f_7^-f_8^-f_{12}^-f_4^+-f_2^-f_3^-f_5^-f_8^-f_9^-f_{12}^-+f_2^-f_3^-f_5^-f_7^-f_8^-f_{12}^--f_3^-f_4^-f_5^-f_7^-f_8^-f_{12}^--f_2^-f_5^-f_8^-f_9^-f_{12}^-f_4^+}{(-E_5+E_1)(-E_3-E_4+E_2+E_5)(-E_8+E_6)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}\\
\frac{+f_2^-f_3^-f_5^-f_9^-f_{10}^-f_7^+-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_7^++f_2^-f_5^-f_9^-f_{10}^-f_4^+f_7^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})}\\
\frac{+f_2^-f_5^-f_9^-f_{12}^-f_4^+f_7^+-f_3^-f_4^-f_5^-f_9^-f_{12}^-f_7^++f_2^-f_3^-f_5^-f_9^-f_{12}^-f_7^+}{(-E_5+E_1)(-E_2-E_5+E_3+E_4)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}
\end{pmatrix}$$

$$\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_6^- f_4^+ f_9^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_9^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_5+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_{10}^- + f_1^- f_2^- f_5^- f_6^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_5+E_8)(-E_1-E_6+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_5^+ f_9^+ + f_1^- f_2^- f_7^- f_4^+ f_5^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_5+E_8)(-E_1-E_2-E_7+E_5+E_9+E_{10})(-E_1-E_2-E_7+E_5+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_7^- f_{10}^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_5+E_8)(-E_1-E_2-E_7+E_5+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_{12}^- + f_1^- f_2^- f_5^- f_6^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_5+E_8)(-E_1-E_6+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_1^- f_2^- f_7^- f_{12}^- f_4^+ f_5^+ + f_1^- f_2^- f_3^- f_7^- f_{12}^- f_5^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_5+E_8)(-E_1-E_2-E_7+E_5+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_5^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{10})(-E_3-E_4-E_7+E_5+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{10}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_2+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{12}^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_9^+ + f_1^- f_2^- f_6^- f_7^- f_4^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_{12}^- + f_1^- f_2^- f_6^- f_7^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_1-E_6+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_1^+ f_5^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{10})(-E_3-E_4-E_7+E_5+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6+E_3+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_1-E_6+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_1^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_1+E_5+E_6)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_8^+ f_9^+ + f_1^- f_2^- f_6^- f_4^+ f_8^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_{10}^- f_8^+ + f_1^- f_2^- f_6^- f_{10}^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ f_9^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_{12}^- f_8^+ + f_1^- f_2^- f_6^- f_{12}^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{12}^- + f_1^- f_2^- f_7^- f_8^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_9-E_{10}+E_1+E_6)(-E_5-E_9-E_{10}+E_1+E_2+E_7)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_9-E_{10}+E_1+E_6)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{12}^- + f_1^- f_2^- f_5^- f_9^- f_{12}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_9-E_{12}+E_1+E_6)(-E_5-E_9-E_{12}+E_1+E_2+E_7)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_2^- f_9^- f_{12}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_9^- f_{12}^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_9-E_{12}+E_1+E_6)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{10}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_1^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_1-E_6+E_7+E_8)(-E_1-E_6+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{12}^- f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_1+E_6)(-E_7-E_8+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_2^+ f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{10}^- f_2^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_7-E_8+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{12}^- f_2^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_6+E_2+E_9+E_{12})(-E_{12}+E_{10})}
\end{array}\right)$$

$$+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,2\}\{7,8|V|1,8\}\{9,10|V|9,12\}\{11,12|V|11,6\}f_8^- f_9^- f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^+ + f_1^- f_2^- f_4^+ f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1+E_7)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_4^+ + f_1^- f_2^- f_3^- f_6^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1+E_7)(-E_6+E_{10})(-E_6+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1+E_7)(-E_6+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_4^- f_2^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_2+E_7)(-E_6+E_{10})(-E_6+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_{10}^- + f_1^- f_2^- f_{10}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_7)(-E_1-E_2+E_5+E_{10})(-E_{10}+E_6)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_7)(-E_3-E_4+E_5+E_{10})(-E_{10}+E_6)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_7)(-E_1-E_2+E_5+E_{12})(-E_{12}+E_6)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_7)(-E_3-E_4+E_5+E_{12})(-E_{12}+E_6)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_5+E_{10})(-E_{10}+E_6)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_{12}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_5+E_{12})(-E_{12}+E_6)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- + f_1^- f_5^- f_6^- f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1+E_7)(-E_6+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_2^+ + f_5^- f_6^- f_2^+ f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_6+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_5^+}{(-E_3-E_4+E_5+E_6)(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^-}{(-E_3-E_4+E_5+E_6)(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_6+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- + f_5^- f_6^- f_7^- f_4^+}{(-E_5-E_6+E_3+E_4)(-E_7+E_1)(-E_5-E_6+E_2+E_7)(-E_6+E_{10})(-E_6+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- + f_2^- f_6^- f_7^- f_4^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_6+E_{10})(-E_6+E_{12})} \\
\frac{+f_2^- f_7^- f_4^+ f_5^+ + f_2^- f_3^- f_7^- f_5^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_7+E_5+E_{10})(-E_2-E_7+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^-}{(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_5+E_{10})(-E_{10}+E_6)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- + f_2^- f_7^- f_{10}^- f_4^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_{10}+E_6)(-E_2-E_7+E_5+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^-}{(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_5+E_{12})(-E_{12}+E_6)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_7^- f_{12}^- + f_2^- f_7^- f_{12}^- f_4^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_{12}+E_6)(-E_2-E_7+E_5+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_1^- f_5^- f_{10}^- f_4^+ + f_1^- f_3^- f_5^- f_{10}^-}{(-E_1+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_7^- f_{10}^- f_4^+ + f_3^- f_5^- f_7^- f_{10}^-}{(-E_7+E_1)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_5-E_{10}+E_2+E_7)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_{12}^- + f_1^- f_5^- f_{12}^- f_4^+}{(-E_1+E_7)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_{12}+E_{10})} \\
\frac{+f_5^- f_7^- f_{12}^- f_4^+ + f_3^- f_5^- f_7^- f_{12}^-}{(-E_7+E_1)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_5-E_{12}+E_2+E_7)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_5^- f_{10}^- f_2^+ + f_5^- f_{10}^- f_2^+ f_4^+}{(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_5-E_{10}+E_2+E_7)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_{12}^- f_2^+ f_4^+ + f_3^- f_5^- f_{12}^- f_2^+}{(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_5-E_{12}+E_2+E_7)(-E_{12}+E_{10})}
\end{array}\right)$$

$$+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,10\}\{5,6|V|7,2\}\{7,8|V|1,8\}\{9,10|V|11,6\}\{11,12|V|9,12\}f_8^-f_{12}^-\begin{pmatrix}
\frac{+f_1^-f_2^-f_9^-f_4^+f_5^++f_1^-f_2^-f_3^-f_9^-f_5^+-f_1^-f_2^-f_{11}^-f_4^+f_5^+-f_1^-f_2^-f_3^-f_{11}^-f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1+E_7)(-E_1-E_2+E_5+E_{10})(-E_9+E_{11})}\\
\frac{+f_1^-f_2^-f_6^-f_9^-f_4^++f_1^-f_2^-f_3^-f_6^-f_9^--f_1^-f_2^-f_3^-f_6^-f_{11}^--f_1^-f_2^-f_6^-f_{11}^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_6)(-E_1+E_7)(-E_6+E_{10})(-E_9+E_{11})}\\
\frac{+f_1^-f_3^-f_4^-f_9^-f_5^+-f_1^-f_3^-f_4^-f_{11}^-f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1+E_7)(-E_3-E_4+E_5+E_{10})(-E_9+E_{11})}\\
\frac{+f_1^-f_3^-f_4^-f_6^-f_9^--f_1^-f_3^-f_4^-f_6^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_1+E_7)(-E_6+E_{10})(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_9^-f_2^+f_5^+-f_3^-f_4^-f_{11}^-f_2^+f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_5+E_{10})(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_6^-f_9^-f_2^+-f_3^-f_4^-f_6^-f_{11}^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_2+E_7)(-E_6+E_{10})(-E_9+E_{11})}\\
\frac{+f_1^-f_2^-f_3^-f_{10}^-f_{11}^-+f_1^-f_2^-f_{10}^-f_{11}^-f_4^+-f_1^-f_2^-f_9^-f_{10}^-f_4^+-f_1^-f_2^-f_3^-f_9^-f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1+E_7)(-E_1-E_2+E_5+E_{10})(-E_{10}+E_6)(-E_{11}+E_9)}\\
\frac{+f_1^-f_3^-f_4^-f_{10}^-f_{11}^--f_1^-f_3^-f_4^-f_9^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_1+E_7)(-E_3-E_4+E_5+E_{10})(-E_{10}+E_6)(-E_{11}+E_9)}\\
\frac{+f_3^-f_4^-f_{10}^-f_{11}^-f_2^+-f_3^-f_4^-f_9^-f_{10}^-f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_5+E_{10})(-E_{10}+E_6)(-E_{11}+E_9)}\\
\frac{+f_1^-f_3^-f_5^-f_6^-f_{11}^-+f_1^-f_5^-f_6^-f_{11}^-f_4^+-f_1^-f_3^-f_5^-f_6^-f_9^--f_1^-f_5^-f_6^-f_9^-f_4^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_1+E_7)(-E_6+E_{10})(-E_{11}+E_9)}\\
\frac{+f_5^-f_6^-f_{11}^-f_2^+f_4^+-f_3^-f_5^-f_6^-f_9^-f_2^+-f_5^-f_6^-f_9^-f_2^+f_4^++f_3^-f_5^-f_6^-f_{11}^-f_2^+}{(-E_5-E_6+E_1+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_6+E_{10})(-E_{11}+E_9)}\\
\frac{+f_3^-f_4^-f_7^-f_{11}^-f_5^+-f_3^-f_4^-f_7^-f_9^-f_5^+}{(-E_3-E_4+E_5+E_6)(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_9)}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_9^--f_3^-f_4^-f_6^-f_7^-f_{11}^-}{(-E_3-E_4+E_5+E_6)(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_6+E_{10})(-E_9+E_{11})}\\
\frac{+f_5^-f_6^-f_7^-f_9^-f_4^+-f_5^-f_6^-f_7^-f_{11}^-f_4^++f_3^-f_5^-f_6^-f_7^-f_9^--f_3^-f_5^-f_6^-f_7^-f_{11}^-}{(-E_5-E_6+E_3+E_4)(-E_7+E_1)(-E_5-E_6+E_2+E_7)(-E_6+E_{10})(-E_9+E_{11})}\\
\frac{+f_2^-f_3^-f_6^-f_7^-f_{11}^--f_2^-f_6^-f_7^-f_9^-f_4^+-f_2^-f_3^-f_6^-f_7^-f_9^-+f_2^-f_6^-f_7^-f_{11}^-f_4^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_6+E_{10})(-E_{11}+E_9)}\\
\frac{+f_2^-f_7^-f_{11}^-f_4^+f_5^++f_2^-f_3^-f_7^-f_{11}^-f_5^+-f_2^-f_3^-f_7^-f_9^-f_5^+-f_2^-f_7^-f_9^-f_4^+f_5^+}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_7+E_5+E_{10})(-E_{11}+E_9)}\\
\frac{+f_3^-f_4^-f_7^-f_{10}^-f_{11}^--f_3^-f_4^-f_7^-f_9^-f_{10}^-}{(-E_7+E_1)(-E_3-E_4+E_2+E_7)(-E_3-E_4+E_5+E_{10})(-E_{10}+E_6)(-E_{11}+E_9)}\\
\frac{+f_2^-f_3^-f_7^-f_{10}^-f_{11}^-+f_2^-f_7^-f_{10}^-f_{11}^-f_4^+-f_2^-f_7^-f_9^-f_{10}^-f_4^+-f_2^-f_3^-f_7^-f_9^-f_{10}^-}{(-E_7+E_1)(-E_2-E_7+E_3+E_4)(-E_{10}+E_6)(-E_2-E_7+E_5+E_{10})(-E_{11}+E_9)}\\
\frac{+f_1^-f_5^-f_9^-f_{10}^-f_4^+-f_1^-f_5^-f_{10}^-f_{11}^-f_4^+-f_1^-f_3^-f_5^-f_{10}^-f_{11}^-+f_1^-f_3^-f_5^-f_9^-f_{10}^-}{(-E_1+E_7)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_9+E_{11})}\\
\frac{+f_3^-f_5^-f_7^-f_{10}^-f_{11}^--f_3^-f_5^-f_7^-f_9^-f_{10}^--f_5^-f_7^-f_9^-f_{10}^-f_4^++f_5^-f_7^-f_{10}^-f_{11}^-f_4^+}{(-E_7+E_1)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_5-E_{10}+E_2+E_7)(-E_{11}+E_9)}\\
\frac{+f_5^-f_9^-f_{10}^-f_2^+f_4^++f_3^-f_5^-f_9^-f_{10}^-f_2^+-f_3^-f_5^-f_{10}^-f_{11}^-f_2^+-f_5^-f_{10}^-f_{11}^-f_2^+f_4^+}{(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_5-E_{10}+E_2+E_7)(-E_9+E_{11})}
\end{pmatrix}$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,6\}\{7,8|V|9,2\}\{9,10|V|1,10\}\{11,12|V|11,8\}f_6^- f_{10}^- f_{11}^- \left(\begin{array}{r}
\frac{+f_1^- f_2^- f_5^- f_4^+ + f_1^- f_2^- f_3^- f_5^-}{(-E_1-E_2+E_3+E_4)(-E_5+E_7)(-E_1-E_2+E_5+E_8)(-E_1+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^-}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_1+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_2+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- + f_1^- f_2^- f_7^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_7+E_5)(-E_1-E_2+E_7+E_8)(-E_1+E_9)(-E_1-E_2+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^-}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_1+E_9)(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_2+E_9)(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_2+E_7+E_8)(-E_1+E_9)(-E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_1+E_9)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_2^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_2+E_9)(-E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_{12}^+ + f_1^- f_2^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1+E_9)(-E_1-E_2+E_5+E_{12})(-E_1-E_2+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_1^- f_3^- f_4^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1+E_9)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_3^- f_4^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_2+E_9)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_1^- f_5^- f_8^- f_4^+ + f_1^- f_3^- f_5^- f_8^-}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_1+E_9)(-E_8+E_{12})} \\
\frac{+f_3^- f_5^- f_8^- f_2^+ + f_5^- f_8^- f_2^+ f_4^+}{(-E_5+E_7)(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_2+E_9)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^-}{(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_9+E_1)(-E_3-E_4+E_2+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_5^- f_8^- f_9^- + f_5^- f_8^- f_9^- f_4^+}{(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_9+E_1)(-E_5-E_8+E_2+E_9)(-E_8+E_{12})} \\
\frac{+f_1^- f_7^- f_8^- f_4^+ + f_1^- f_3^- f_7^- f_8^-}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_1+E_9)(-E_8+E_{12})} \\
\frac{+f_7^- f_8^- f_2^+ f_4^+ + f_3^- f_7^- f_8^- f_2^+}{(-E_7+E_5)(-E_7-E_8+E_1+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_2+E_9)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^-}{(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_9+E_1)(-E_3-E_4+E_2+E_9)(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_9^- + f_7^- f_8^- f_9^- f_4^+}{(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_9+E_1)(-E_7-E_8+E_2+E_9)(-E_8+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_4^+ + f_2^- f_3^- f_5^- f_9^-}{(-E_5+E_7)(-E_9+E_1)(-E_2-E_9+E_3+E_4)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_9^- + f_2^- f_7^- f_9^- f_4^+}{(-E_7+E_5)(-E_9+E_1)(-E_2-E_9+E_3+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_9+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_{12}^- + f_1^- f_5^- f_{12}^- f_4^+}{(-E_5+E_7)(-E_1+E_9)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)} \\
\frac{+f_3^- f_5^- f_9^- f_{12}^- + f_5^- f_9^- f_{12}^- f_4^+}{(-E_5+E_7)(-E_9+E_1)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_5-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_7^- f_{12}^- f_4^+ + f_1^- f_3^- f_7^- f_{12}^-}{(-E_7+E_5)(-E_1+E_9)(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)(-E_{12}+E_8)} \\
\frac{+f_3^- f_7^- f_9^- f_{12}^- + f_7^- f_9^- f_{12}^- f_4^+}{(-E_7+E_5)(-E_9+E_1)(-E_7-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_7-E_{12}+E_2+E_9)} \\
\frac{+f_5^- f_{12}^- f_2^+ f_4^+ + f_3^- f_5^- f_{12}^- f_2^+}{(-E_5+E_7)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_5-E_{12}+E_2+E_9)} \\
\frac{+f_3^- f_7^- f_{12}^- f_2^+ + f_7^- f_{12}^- f_2^+ f_4^+}{(-E_7+E_5)(-E_7-E_{12}+E_1+E_2)(-E_7-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_7-E_{12}+E_2+E_9)} \\
\frac{+f_3^- f_4^- f_9^- f_8^+}{(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_9+E_1)(-E_3-E_4+E_2+E_9)(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_8^+ + f_2^- f_9^- f_4^+ f_8^+}{(-E_9+E_1)(-E_2-E_9+E_3+E_4)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^+}{(-E_9+E_1)(-E_3-E_4+E_2+E_9)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_2^- f_3^- f_9^- f_{12}^+ + f_2^- f_9^- f_4^+ f_{12}^+}{(-E_9+E_1)(-E_2-E_9+E_3+E_4)(-E_{12}+E_8)(-E_2-E_9+E_5+E_{12})(-E_2-E_9+E_7+E_{12})}
\end{array}\right)$$

$$+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,8\}\{5,6|V|7,10\}\{7,8|V|9,6\}\{9,10|V|11,2\}\{11,12|V|1,12\}f^-_{12}\left(\begin{array}{r}
\frac{+f^-_1f^-_2f^-_3f^-_5f^-_6f^-_7+f^-_1f^-_2f^-_5f^-_6f^-_7f^+_4}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_2-E_7+E_5+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_1f^-_2f^-_5f^-_6f^-_9f^+_4+f^-_1f^-_2f^-_3f^-_5f^-_6f^-_9-f^-_1f^-_2f^-_3f^-_5f^-_7f^+_9-f^-_1f^-_2f^-_5f^-_7f^+_4f^+_9}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_5-E_6-E_9+E_1+E_2+E_7)(-E_1-E_2+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_1f^-_2f^-_3f^-_6f^-_7f^+_8+f^-_1f^-_2f^-_6f^-_7f^+_4f^+_8}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_1-E_2-E_6+E_7+E_8+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_1f^-_2f^-_6f^-_9f^+_4f^+_8+f^-_1f^-_2f^-_3f^-_6f^-_9f^+_8-f^-_1f^-_2f^-_7f^+_4f^+_8f^+_9-f^-_1f^-_2f^-_3f^-_7f^+_8f^+_9}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_1-E_2+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_1f^-_2f^-_5f^-_7f^-_{10}f^+_4+f^-_1f^-_2f^-_3f^-_5f^-_7f^-_{10}-f^-_1f^-_2f^-_3f^-_5f^-_6f^+_{10}-f^-_1f^-_2f^-_5f^-_6f^+_4f^+_{10}}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_7-E_{10}+E_5+E_6)(-E_1-E_2+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_1f^-_2f^-_3f^-_7f^-_{10}f^+_8+f^-_1f^-_2f^-_7f^-_{10}f^+_4f^+_8-f^-_1f^-_2f^-_3f^-_6f^+_8f^+_{10}-f^-_1f^-_2f^-_6f^+_4f^+_8f^+_{10}}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_7-E_8-E_{10}+E_1+E_2+E_6)(-E_1-E_2+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_1f^-_3f^-_4f^-_5f^-_6f^-_7}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_3f^-_4f^-_5f^-_6f^-_7f^+_2}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_1f^-_3f^-_4f^-_5f^-_7f^+_9-f^-_1f^-_3f^-_4f^-_5f^-_6f^-_9}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_3-E_4+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_3f^-_4f^-_5f^-_6f^-_9f^+_2-f^-_3f^-_4f^-_5f^-_7f^+_2f^+_9}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_6-E_9+E_3+E_4+E_7)(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_1f^-_3f^-_4f^-_6f^-_7f^+_8}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_3f^-_4f^-_6f^-_7f^+_2f^+_8}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_1f^-_3f^-_4f^-_6f^-_9f^+_8-f^-_1f^-_3f^-_4f^-_7f^+_8f^+_9}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_3f^-_4f^-_6f^-_9f^+_2f^+_8-f^-_3f^-_4f^-_7f^+_2f^+_8f^+_9}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_1f^-_3f^-_4f^-_5f^-_7f^-_{10}-f^-_1f^-_3f^-_4f^-_5f^-_6f^+_{10}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_3f^-_4f^-_5f^-_7f^-_{10}f^+_2-f^-_3f^-_4f^-_5f^-_6f^+_2f^+_{10}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_1f^-_3f^-_4f^-_7f^-_{10}f^+_8-f^-_1f^-_3f^-_4f^-_6f^+_8f^+_{10}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_3-E_4+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_3f^-_4f^-_7f^-_{10}f^+_2f^+_8-f^-_3f^-_4f^-_6f^+_2f^+_8f^+_{10}}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_1f^-_2f^-_7f^+_4f^+_6f^+_9+f^-_1f^-_2f^-_3f^-_7f^+_6f^+_9}{(-E_1-E_2+E_3+E_4)(-E_1-E_2-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_1-E_2+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_1f^-_3f^-_4f^-_7f^+_6f^+_9}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_3f^-_4f^-_7f^+_2f^+_6f^+_9}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_1f^-_2f^-_7f^-_{10}f^+_4f^+_6+f^-_1f^-_2f^-_3f^-_7f^-_{10}f^+_6}{(-E_1-E_2+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_1-E_2-E_6+E_7+E_8+E_{10})(-E_1-E_2+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_1f^-_3f^-_4f^-_7f^-_{10}f^+_6}{(-E_3-E_4+E_1+E_2)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_3f^-_4f^-_7f^-_{10}f^+_2f^+_6}{(-E_3-E_4+E_1+E_2)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_1f^-_5f^-_6f^-_7f^-_8f^+_4+f^-_1f^-_3f^-_5f^-_6f^-_7f^-_8}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_5f^-_6f^-_7f^-_8f^+_2f^+_4+f^-_3f^-_5f^-_6f^-_7f^-_8f^+_2}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_2+E_{11})}\\
\frac{+f^-_1f^-_3f^-_5f^-_6f^-_8f^-_9+f^-_1f^-_5f^-_6f^-_8f^-_9f^+_4-f^-_1f^-_5f^-_7f^-_8f^+_4f^+_9-f^-_1f^-_3f^-_5f^-_7f^-_8f^+_9}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_5-E_8+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_5f^-_6f^-_8f^-_9f^+_2f^+_4+f^-_3f^-_5f^-_6f^-_8f^-_9f^+_2-f^-_3f^-_5f^-_7f^-_8f^+_2f^+_9-f^-_5f^-_7f^-_8f^+_2f^+_4f^+_9}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_2+E_{11})}\\
\frac{+f^-_1f^-_5f^-_7f^-_8f^-_{10}f^+_4-f^-_1f^-_5f^-_6f^-_8f^+_4f^+_{10}+f^-_1f^-_3f^-_5f^-_7f^-_8f^-_{10}-f^-_1f^-_3f^-_5f^-_6f^-_8f^+_{10}}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_5-E_8+E_9+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_5f^-_7f^-_8f^-_{10}f^+_2f^+_4+f^-_3f^-_5f^-_7f^-_8f^-_{10}f^+_2-f^-_3f^-_5f^-_6f^-_8f^+_2f^+_{10}-f^-_5f^-_6f^-_8f^+_2f^+_4f^+_{10}}{(-E_5-E_8+E_1+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_2+E_{11})}\\
\frac{+f^-_3f^-_4f^-_5f^-_6f^-_7f^-_{11}}{(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_3f^-_4f^-_5f^-_6f^-_9f^-_{11}-f^-_3f^-_4f^-_5f^-_7f^-_{11}f^+_9}{(-E_3-E_4+E_5+E_8)(-E_5-E_6-E_9+E_3+E_4+E_7)(-E_3-E_4+E_9+E_{10})(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_5f^-_6f^-_7f^-_8f^-_{11}f^+_4+f^-_3f^-_5f^-_6f^-_7f^-_8f^-_{11}}{(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_{11}+E_1)(-E_5-E_8+E_2+E_{11})}\\
\frac{+f^-_3f^-_4f^-_6f^-_7f^-_{11}f^+_8}{(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_3f^-_4f^-_6f^-_9f^-_{11}f^+_8-f^-_3f^-_4f^-_7f^-_{11}f^+_8f^+_9}{(-E_3-E_4+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_5f^-_7f^-_8f^-_{11}f^+_4f^+_9-f^-_5f^-_6f^-_8f^-_9f^-_{11}f^+_4-f^-_3f^-_5f^-_6f^-_8f^-_9f^-_{11}+f^-_3f^-_5f^-_7f^-_8f^-_{11}f^+_9}{(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{10})(-E_{11}+E_1)(-E_5-E_8+E_2+E_{11})}\\
\frac{+f^-_3f^-_4f^-_5f^-_6f^-_{11}f^+_{10}-f^-_3f^-_4f^-_5f^-_7f^-_{10}f^-_{11}}{(-E_3-E_4+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_4+E_9+E_{10})(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_3f^-_5f^-_7f^-_8f^-_{10}f^-_{11}+f^-_5f^-_7f^-_8f^-_{10}f^-_{11}f^+_4-f^-_3f^-_5f^-_6f^-_8f^-_{11}f^+_{10}-f^-_5f^-_6f^-_8f^-_{11}f^+_4f^+_{10}}{(-E_5-E_8+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_5-E_8+E_9+E_{10})(-E_{11}+E_1)(-E_5-E_8+E_2+E_{11})}\\
\frac{+f^-_3f^-_4f^-_6f^-_{11}f^+_8f^+_{10}-f^-_3f^-_4f^-_7f^-_{10}f^-_{11}f^+_8}{(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4+E_9+E_{10})(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_1f^-_5f^-_6f^-_9f^+_4f^+_7+f^-_1f^-_3f^-_5f^-_6f^-_9f^+_7}{(-E_5-E_6-E_9+E_1+E_2+E_7)(-E_5-E_6-E_9+E_3+E_4+E_7)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_1+E_{11})}\\
\frac{+f^-_3f^-_5f^-_6f^-_9f^+_2f^+_7+f^-_5f^-_6f^-_9f^+_2f^+_4f^+_7}{(-E_5-E_6-E_9+E_1+E_2+E_7)(-E_5-E_6-E_9+E_3+E_4+E_7)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_2+E_7+E_{11})}\\
\frac{+f^-_5f^-_6f^-_9f^-_{11}f^+_4f^+_7+f^-_3f^-_5f^-_6f^-_9f^-_{11}f^+_7}{(-E_5-E_6-E_9+E_3+E_4+E_7)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_{11}+E_1)(-E_5-E_6-E_9+E_2+E_7+E_{11})}\\
\frac{+f^-_3f^-_4f^-_7f^-_{11}f^+_6f^+_9}{(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_{11}+E_1)(-E_3-E_4+E_2+E_{11})}\\
\frac{+f^-_1f^-_7f^-_8f^-_{10}f^+_4f^+_6+f^-_1f^-_3f^-_7f^-_8f^-_{10}f^+_6}{(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_1+E_2+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_1+E_{11})}\\
\frac{+f^-_7f^-_8f^-_{10}f^+_2f^+_4f^+_6+f^-_3f^-_7f^-_8f^-_{10}f^+_2f^+_6}{(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_1+E_2+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})}\\
\frac{+f^-_3f^-_7f^-_8f^-_{10}f^-_{11}f^+_6+f^-_7f^-_8f^-_{10}f^-_{11}f^+_4f^+_6}{(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_{11}+E_1)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})}\\
\frac{+f^-_1f^-_7f^-_9f^-_{10}f^+_4f^+_6+f^-_1f^-_3f^-_7f^-_9f^-_{10}f^+_6}{(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_1+E_2)(-E_9-E_{10}+E_3+E_4)(-E_1+E_{11})}\\
\frac{+f^-_3f^-_7f^-_9f^-_{10}f^+_2f^+_6+f^-_7f^-_9f^-_{10}f^+_2f^+_4f^+_6}{(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_1+E_2)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})}
\end{array}\right)$$

$$+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|1,8\}\{7,8|V|9,6\}\{9,10|V|7,2\}\{11,12|V|11,10\}f_{11}^{-}\begin{pmatrix}
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_5^+ -f_1^- f_2^- f_5^- f_6^- f_7^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- -f_1^- f_2^- f_8^- f_9^- f_4^+ f_5^+ +f_1^- f_2^- f_3^- f_6^- f_9^- f_5^+ -f_1^- f_2^- f_3^- f_8^- f_9^- f_5^+ +f_1^- f_2^- f_6^- f_9^- f_4^+ f_5^+ +f_1^- f_2^- f_7^- f_8^- f_4^+ f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_5-E_7+E_1+E_9)(-E_1-E_2+E_5+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- -f_1^- f_3^- f_4^- f_6^- f_9^- f_5^+ +f_1^- f_3^- f_4^- f_8^- f_9^- f_5^+ -f_1^- f_3^- f_4^- f_7^- f_8^- f_5^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_5-E_7+E_1+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- -f_1^- f_2^- f_3^- f_6^- f_9^- f_8^+ -f_1^- f_2^- f_6^- f_9^- f_4^+ f_8^+ +f_1^- f_2^- f_6^- f_7^- f_8^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_2-E_6+E_8+E_{10})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_8^- -f_1^- f_3^- f_4^- f_6^- f_9^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_3-E_4-E_6+E_1+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_2^+ +f_3^- f_4^- f_8^- f_9^- f_2^+ f_5^+ -f_3^- f_4^- f_7^- f_8^- f_2^+ f_5^+ -f_3^- f_4^- f_6^- f_9^- f_2^+ f_5^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_2-E_5-E_7+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_2^+ f_8^+ -f_3^- f_4^- f_6^- f_7^- f_8^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_2-E_6+E_8+E_{10})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- -f_1^- f_2^- f_7^- f_8^- f_4^+ f_9^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_9^+ +f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_9+E_5+E_7)(-E_6-E_9+E_7+E_8)(-E_2-E_7+E_9+E_{10})(-E_2-E_7+E_9+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^+ -f_1^- f_3^- f_4^- f_6^- f_7^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_9+E_5+E_7)(-E_7-E_8+E_6+E_9)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_3-E_4-E_7+E_1+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_2^+ -f_3^- f_4^- f_7^- f_8^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_2+E_5+E_7)(-E_6-E_9+E_7+E_8)(-E_2-E_7+E_9+E_{10})(-E_2-E_7+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_8^- f_9^- f_{10}^- f_4^+ -f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- -f_1^- f_2^- f_6^- f_9^- f_{10}^- f_4^+ -f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ +f_1^- f_2^- f_6^- f_7^- f_4^+ f_{10}^+ +f_1^- f_2^- f_3^- f_6^- f_7^- f_{10}^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- +f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_9-E_{10}+E_2+E_7)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_2^+ f_{10}^+ -f_3^- f_4^- f_7^- f_8^- f_{10}^- f_2^+ +f_3^- f_4^- f_8^- f_9^- f_{10}^- f_2^+ -f_3^- f_4^- f_6^- f_9^- f_{10}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_2-E_7+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- +f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^- -f_1^- f_3^- f_4^- f_6^- f_7^- f_{10}^+ -f_1^- f_3^- f_4^- f_8^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{10})(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{12}^- +f_1^- f_2^- f_8^- f_9^- f_{12}^- f_4^+ -f_1^- f_2^- f_3^- f_7^- f_8^- f_{12}^- -f_1^- f_2^- f_6^- f_9^- f_{12}^- f_4^+ -f_1^- f_2^- f_3^- f_6^- f_9^- f_{12}^- -f_1^- f_2^- f_7^- f_8^- f_{12}^- f_4^+ +f_1^- f_2^- f_3^- f_6^- f_7^- f_{12}^+ +f_1^- f_2^- f_6^- f_7^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_9-E_{12}+E_2+E_7)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{12}^- f_2^+ -f_3^- f_4^- f_6^- f_9^- f_{12}^- f_2^+ -f_3^- f_4^- f_7^- f_8^- f_{12}^- f_2^+ +f_3^- f_4^- f_6^- f_7^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_9-E_{12}+E_2+E_7)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_{12}^- +f_1^- f_3^- f_4^- f_7^- f_8^- f_{12}^- -f_1^- f_3^- f_4^- f_8^- f_9^- f_{12}^- -f_1^- f_3^- f_4^- f_6^- f_7^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_1+E_8+E_{12})(-E_1-E_9-E_{12}+E_3+E_4+E_7)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_8^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ -f_2^- f_5^- f_6^- f_7^- f_4^+ f_8^+ -f_2^- f_3^- f_5^- f_6^- f_7^- f_8^+ +f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_6-E_9+E_7+E_8)(-E_2-E_6+E_8+E_{10})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_{10}^- -f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^- +f_1^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- +f_1^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ -f_1^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ -f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ +f_1^- f_3^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_5-E_6+E_1+E_8)(-E_5-E_7+E_1+E_9)(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_7^- f_8^- f_{12}^- -f_1^- f_5^- f_8^- f_9^- f_{12}^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_7^- f_{12}^- -f_1^- f_5^- f_6^- f_7^- f_{12}^- f_4^+ +f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ +f_1^- f_5^- f_7^- f_8^- f_{12}^- f_4^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- -f_1^- f_3^- f_5^- f_8^- f_9^- f_{12}^-}{(-E_1-E_8+E_5+E_6)(-E_5-E_7+E_1+E_9)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_{10})} \\
\frac{+f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_8^+ -f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ +f_3^- f_5^- f_6^- f_7^- f_{10}^- f_8^+ -f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_6+E_9)(-E_5-E_{10}+E_3+E_4)(-E_8-E_{10}+E_2+E_6)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ -f_1^- f_3^- f_8^- f_9^- f_{10}^- f_6^+ +f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+ -f_1^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_8-E_{10}+E_2+E_6)(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ -f_3^- f_5^- f_6^- f_7^- f_{12}^- f_8^+ -f_5^- f_6^- f_7^- f_{12}^- f_4^+ f_8^+ +f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+}{(-E_5-E_6+E_1+E_8)(-E_6-E_9+E_7+E_8)(-E_5-E_{12}+E_3+E_4)(-E_8-E_{12}+E_2+E_6)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ +f_1^- f_3^- f_8^- f_9^- f_{12}^- f_6^+ -f_1^- f_3^- f_7^- f_8^- f_{12}^- f_6^+ -f_1^- f_7^- f_8^- f_{12}^- f_4^+ f_6^+}{(-E_1-E_8+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_8-E_{12}+E_2+E_6)(-E_1-E_8-E_{12}+E_3+E_4+E_6)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_9^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_9^+}{(-E_5-E_7+E_1+E_9)(-E_3-E_4-E_9+E_2+E_5+E_7)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_4^+ f_9^+ -f_2^- f_5^- f_7^- f_8^- f_4^+ f_9^+ +f_2^- f_3^- f_5^- f_6^- f_7^- f_9^+ -f_2^- f_3^- f_5^- f_7^- f_8^- f_9^+}{(-E_5-E_7+E_1+E_9)(-E_2-E_5-E_7+E_3+E_4+E_9)(-E_6-E_9+E_7+E_8)(-E_2-E_7+E_9+E_{10})(-E_2-E_7+E_9+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_8^- f_{10}^- f_9^+ -f_3^- f_5^- f_6^- f_7^- f_{10}^- f_9^+ -f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_9^+ +f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_9^+}{(-E_5-E_7+E_1+E_9)(-E_7-E_8+E_6+E_9)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_2+E_7)(-E_{10}+E_{12})} \\
\frac{+f_1^- f_8^- f_9^- f_{10}^- f_4^+ f_7^+ +f_1^- f_3^- f_8^- f_9^- f_{10}^- f_7^+ -f_1^- f_3^- f_6^- f_9^- f_{10}^- f_7^+ -f_1^- f_6^- f_9^- f_{10}^- f_4^+ f_7^+}{(-E_1-E_9+E_5+E_7)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_2+E_7)(-E_1-E_9-E_{10}+E_3+E_4+E_7)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_8^- f_{12}^- f_9^+ -f_5^- f_6^- f_7^- f_{12}^- f_4^+ f_9^+ -f_3^- f_5^- f_6^- f_7^- f_{12}^- f_9^+ +f_5^- f_7^- f_8^- f_{12}^- f_4^+ f_9^+}{(-E_5-E_7+E_1+E_9)(-E_7-E_8+E_6+E_9)(-E_5-E_{12}+E_3+E_4)(-E_9-E_{12}+E_2+E_7)(-E_{12}+E_{10})} \\
\frac{+f_1^- f_3^- f_6^- f_9^- f_{12}^- f_7^+ +f_1^- f_6^- f_9^- f_{12}^- f_4^+ f_7^+ -f_1^- f_3^- f_8^- f_9^- f_{12}^- f_7^+ -f_1^- f_8^- f_9^- f_{12}^- f_4^+ f_7^+}{(-E_1-E_9+E_5+E_7)(-E_6-E_9+E_7+E_8)(-E_9-E_{12}+E_2+E_7)(-E_1-E_9-E_{12}+E_3+E_4+E_7)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^+ f_{10}^+ -f_3^- f_4^- f_6^- f_9^- f_8^+ f_{10}^+}{(-E_7-E_8+E_6+E_9)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^+ f_{10}^+ -f_3^- f_4^- f_7^- f_8^- f_9^+ f_{10}^+}{(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_2+E_7)(-E_3-E_4-E_7+E_1+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_8^+ f_{12}^+ -f_3^- f_4^- f_6^- f_7^- f_8^+ f_{12}^+}{(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_3-E_4-E_6+E_1+E_8+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^+ f_{12}^+ -f_3^- f_4^- f_6^- f_7^- f_9^+ f_{12}^+}{(-E_7-E_8+E_6+E_9)(-E_3-E_4+E_5+E_{12})(-E_9-E_{12}+E_2+E_7)(-E_3-E_4-E_7+E_1+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_2^+ f_4^+ +f_3^- f_5^- f_8^- f_9^- f_{10}^- f_2^+ -f_3^- f_5^- f_6^- f_9^- f_{10}^- f_2^+ +f_5^- f_6^- f_7^- f_{10}^- f_2^+ f_4^+ -f_5^- f_6^- f_9^- f_{10}^- f_2^+ f_4^+ -f_5^- f_7^- f_8^- f_{10}^- f_2^+ f_4^+ -f_3^- f_5^- f_7^- f_8^- f_{10}^- f_2^+ +f_3^- f_5^- f_6^- f_7^- f_{10}^- f_2^+}{(-E_5-E_{10}+E_1+E_2)(-E_5-E_{10}+E_3+E_4)(-E_8-E_{10}+E_2+E_6)(-E_9-E_{10}+E_2+E_7)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{12}^- f_2^+ -f_5^- f_8^- f_9^- f_{12}^- f_2^+ f_4^+ -f_3^- f_5^- f_6^- f_7^- f_{12}^- f_2^+ -f_3^- f_5^- f_8^- f_9^- f_{12}^- f_2^+ +f_3^- f_5^- f_7^- f_8^- f_{12}^- f_2^+ +f_5^- f_7^- f_8^- f_{12}^- f_2^+ f_4^+ -f_5^- f_6^- f_7^- f_{12}^- f_2^+ f_4^+ +f_5^- f_6^- f_9^- f_{12}^- f_2^+ f_4^+}{(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)(-E_2-E_6+E_8+E_{12})(-E_9-E_{12}+E_2+E_7)(-E_{12}+E_{10})}
\end{pmatrix}$$

$$
+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|1,8\}\{7,8|V|9,6\}\{9,10|V|11,10\}\{11,12|V|7,2\}f_{10}^{-}
\left(\begin{array}{c}
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- -f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- +f_1^- f_2^- f_5^- f_6^- f_7^- f_4^+ -f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6+E_1+E_8)(-E_5-E_7+E_1+E_9)(-E_5-E_7+E_1+E_{11})(-E_1-E_2+E_5+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_1^+ -f_1^- f_3^- f_4^- f_5^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_5-E_7+E_1+E_9)(-E_5-E_7+E_1+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_8^- f_9^- f_4^+ -f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- +f_1^- f_2^- f_3^- f_5^- f_8^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_1-E_9+E_5+E_7)(-E_9+E_{11})(-E_1-E_2+E_5+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- -f_1^- f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_1-E_9+E_5+E_7)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^- f_2^- f_7^- f_8^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_7^- f_8^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_7-E_8+E_6+E_{11})(-E_2-E_6+E_8+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_7-E_8+E_6+E_{11})(-E_3-E_4-E_6+E_1+E_8+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_6^+ +f_1^- f_2^- f_8^- f_9^- f_4^+ f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_2-E_6+E_8+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4-E_6+E_1+E_8+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- f_{11}^- -f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ -f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- +f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_1-E_{11}+E_5+E_7)(-E_{11}+E_9)(-E_1-E_2+E_5+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- -f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_1-E_{11}+E_5+E_7)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_6^+ +f_1^- f_2^- f_3^- f_8^- f_{11}^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_8+E_5+E_6)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_2-E_6+E_8+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_8^- f_{11}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4-E_6+E_1+E_8+E_{12})}\\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- -f_3^- f_4^- f_5^- f_7^- f_8^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_2-E_5-E_7+E_3+E_4+E_9)(-E_2-E_5-E_7+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+ -f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_3-E_4-E_9+E_2+E_5+E_7)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_7-E_8+E_6+E_{11})(-E_2-E_6+E_8+E_{12})}\\
\frac{+f_3^- f_4^- f_8^- f_9^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_2-E_6+E_8+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+ -f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_3-E_4-E_{11}+E_2+E_5+E_7)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_2-E_6+E_8+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_7^+ +f_1^- f_2^- f_6^- f_9^- f_4^+ f_7^+ -f_1^- f_2^- f_3^- f_8^- f_9^- f_7^+ -f_1^- f_2^- f_8^- f_9^- f_4^+ f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_9+E_5+E_7)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_2-E_7+E_9+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_7^+ -f_1^- f_3^- f_4^- f_8^- f_9^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_9+E_5+E_7)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4-E_7+E_1+E_9+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_9^- f_2^+ f_7^+ -f_3^- f_4^- f_8^- f_9^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_9+E_2+E_5+E_7)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_2-E_7+E_9+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_8^- f_{11}^- f_7^+ +f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_7^+ -f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_7^+ -f_1^- f_2^- f_3^- f_6^- f_{11}^- f_7^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_{11}+E_5+E_7)(-E_7-E_8+E_6+E_{11})(-E_{11}+E_9)(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_8^- f_{11}^- f_7^+ -f_1^- f_3^- f_4^- f_6^- f_{11}^- f_7^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_{11}+E_5+E_7)(-E_7-E_8+E_6+E_{11})(-E_{11}+E_9)(-E_3-E_4-E_7+E_1+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_7^+ -f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_7^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_2+E_5+E_7)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_{12}^+ +f_1^- f_2^- f_6^- f_9^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_8^- f_9^- f_{12}^+ -f_1^- f_2^- f_8^- f_9^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_9+E_{11})(-E_1-E_2+E_5+E_{12})(-E_2-E_6+E_8+E_{12})(-E_9-E_{12}+E_2+E_7)}\\
\frac{+f_1^- f_2^- f_8^- f_{11}^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_6^- f_{11}^- f_{12}^+ +f_1^- f_2^- f_3^- f_8^- f_{11}^- f_{12}^+ -f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_{11}+E_9)(-E_1-E_2+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_{11}-E_{12}+E_2+E_7)}\\
\frac{+f_3^- f_4^- f_8^- f_9^- f_2^+ f_{12}^+ -f_3^- f_4^- f_6^- f_9^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_9-E_{12}+E_2+E_7)}\\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_2^+ f_{12}^+ -f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_{11}-E_{12}+E_2+E_7)}\\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_{12}^+ -f_1^- f_3^- f_4^- f_6^- f_9^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})(-E_1-E_8-E_{12}+E_3+E_4+E_6)(-E_1-E_9-E_{12}+E_3+E_4+E_7)}\\
\frac{+f_1^- f_3^- f_4^- f_8^- f_{11}^- f_{12}^+ -f_1^- f_3^- f_4^- f_6^- f_{11}^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})(-E_1-E_8-E_{12}+E_3+E_4+E_6)(-E_1-E_{11}-E_{12}+E_3+E_4+E_7)}\\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{12}^+ +f_1^- f_2^- f_7^- f_8^- f_4^+ f_{12}^+ -f_1^- f_2^- f_3^- f_6^- f_7^- f_{12}^+ -f_1^- f_2^- f_6^- f_7^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_2-E_7+E_9+E_{12})(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_2^+ f_{12}^+ -f_2^- f_3^- f_4^- f_6^- f_7^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)(-E_2-E_7+E_9+E_{12})(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{12}^+ -f_3^- f_4^- f_6^- f_7^- f_1^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_{12})(-E_1-E_8-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_7+E_1+E_9+E_{12})(-E_3-E_4-E_7+E_1+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_8^-}{(-E_5-E_6+E_1+E_8)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_7-E_8+E_6+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_2^- f_5^- f_6^- f_7^- f_4^+ f_8^+ +f_2^- f_3^- f_5^- f_6^- f_7^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_7-E_8+E_6+E_9)(-E_7-E_8+E_6+E_{11})(-E_2-E_6+E_8+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ +f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+}{(-E_5-E_6+E_1+E_8)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_2-E_6+E_8+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_3-E_4-E_8+E_2+E_5+E_6)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+ +f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_2-E_5-E_6+E_3+E_4+E_8)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_2-E_6+E_8+E_{12})}\\
\frac{+f_1^- f_5^- f_7^- f_8^- f_{12}^- f_4^+ -f_5^- f_6^- f_7^- f_{12}^- f_1^+ f_4^+ +f_1^- f_3^- f_5^- f_7^- f_8^- f_{12}^- -f_3^- f_5^- f_6^- f_7^- f_{12}^- f_1^+}{(-E_1-E_8+E_5+E_6)(-E_5-E_7+E_1+E_9)(-E_5-E_7+E_1+E_{11})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)}\\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ -f_1^- f_3^- f_5^- f_8^- f_9^- f_{12}^- +f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- -f_1^- f_5^- f_8^- f_9^- f_{12}^- f_4^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_9+E_5+E_7)(-E_9+E_{11})(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)}\\
\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_{12}^- +f_5^- f_6^- f_7^- f_8^- f_{12}^- f_4^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_6+E_9)(-E_7-E_8+E_6+E_{11})(-E_5-E_{12}+E_3+E_4)(-E_8-E_{12}+E_2+E_6)}\\
\frac{+f_1^- f_7^- f_8^- f_{12}^- f_4^+ f_6^+ +f_1^- f_3^- f_7^- f_8^- f_{12}^- f_6^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_7-E_8+E_6+E_{11})(-E_8-E_{12}+E_2+E_6)(-E_1-E_8-E_{12}+E_3+E_4+E_6)}\\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ +f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+}{(-E_5-E_6+E_1+E_8)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_5-E_{12}+E_3+E_4)(-E_8-E_{12}+E_2+E_6)}\\
\frac{+f_1^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ +f_1^- f_3^- f_8^- f_9^- f_{12}^- f_6^+}{(-E_1-E_8+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_8-E_{12}+E_2+E_6)(-E_1-E_8-E_{12}+E_3+E_4+E_6)}\\
\frac{+f_1^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^- +f_1^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^-}{(-E_1-E_8+E_5+E_6)(-E_1-E_{11}+E_5+E_7)(-E_{11}+E_9)(-E_5-E_{12}+E_1+E_2)(-E_5-E_{12}+E_3+E_4)}\\
\frac{+f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+ +f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_8^+}{(-E_5-E_6+E_1+E_8)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_5-E_{12}+E_3+E_4)(-E_8-E_{12}+E_2+E_6)}\\
\frac{+f_1^- f_3^- f_8^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_1-E_8+E_5+E_6)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_8-E_{12}+E_2+E_6)(-E_1-E_8-E_{12}+E_3+E_4+E_6)}
\end{array}\right.
$$

$$\begin{pmatrix}
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_7^-f_{11}^-+f_1^-f_2^-f_5^-f_6^-f_7^-f_{11}^-f_4^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_{10}^-f_5^+-f_1^-f_2^-f_6^-f_7^-f_{10}^-f_4^+f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_7+E_5+E_9)(-E_5-E_6-E_{11}+E_1+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_7^-f_{10}^-f_5^+f_{11}^++f_1^-f_2^-f_7^-f_{10}^-f_4^+f_5^+f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_7+E_5+E_9)(-E_1-E_7-E_{10}+E_5+E_6+E_{11})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_5^-f_6^-f_9^-f_{10}^-f_4^+-f_1^-f_2^-f_3^-f_5^-f_6^-f_9^-f_{11}^--f_1^-f_2^-f_5^-f_6^-f_9^-f_{11}^-f_4^++f_1^-f_2^-f_3^-f_5^-f_6^-f_9^-f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_5-E_9+E_1+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_5^-f_9^-f_{10}^-f_{11}^++f_1^-f_2^-f_5^-f_9^-f_{10}^-f_4^+f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_5-E_9+E_1+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_7^-f_{10}^-f_{12}^-f_5^++f_1^-f_2^-f_7^-f_{10}^-f_{12}^-f_4^+f_5^+-f_1^-f_2^-f_3^-f_7^-f_{11}^-f_{12}^-f_5^+-f_1^-f_2^-f_7^-f_{11}^-f_{12}^-f_4^+f_5^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_7+E_5+E_9)(-E_7-E_{12}+E_5+E_6)(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_5^-f_9^-f_{10}^-f_{12}^-f_4^++f_1^-f_2^-f_3^-f_5^-f_9^-f_{10}^-f_{12}^--f_1^-f_2^-f_3^-f_5^-f_9^-f_{11}^-f_{12}^--f_1^-f_2^-f_5^-f_9^-f_{11}^-f_{12}^-f_4^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_5-E_9+E_1+E_7)(-E_9-E_{12}+E_1+E_6)(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_6^-f_7^-f_{11}^-f_8^++f_1^-f_2^-f_6^-f_7^-f_{11}^-f_4^+f_8^+-f_1^-f_2^-f_6^-f_7^-f_8^-f_{10}^-f_4^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_8^-f_{10}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_7-E_8+E_2+E_9)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_1-E_2-E_6+E_7+E_8+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_7^-f_8^-f_{10}^-f_{11}^++f_1^-f_2^-f_7^-f_8^-f_{10}^-f_4^+f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_6^-f_9^-f_{10}^-f_4^+f_8^++f_1^-f_2^-f_3^-f_6^-f_9^-f_{10}^-f_8^+-f_1^-f_2^-f_3^-f_6^-f_9^-f_{11}^-f_8^+-f_1^-f_2^-f_6^-f_9^-f_{11}^-f_4^+f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_1^-f_2^-f_9^-f_{10}^-f_4^+f_8^+f_{11}^++f_1^-f_2^-f_3^-f_9^-f_{10}^-f_8^+f_{11}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_7^-f_8^-f_{10}^-f_{12}^-+f_1^-f_2^-f_7^-f_8^-f_{10}^-f_{12}^-f_4^+-f_1^-f_2^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^+-f_1^-f_2^-f_3^-f_7^-f_8^-f_{11}^-f_{12}^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{12}+E_1+E_2+E_6)(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_9^-f_{10}^-f_{12}^-f_4^+f_8^++f_1^-f_2^-f_3^-f_9^-f_{10}^-f_{12}^-f_8^+-f_1^-f_2^-f_3^-f_9^-f_{11}^-f_{12}^-f_8^+-f_1^-f_2^-f_9^-f_{11}^-f_{12}^-f_4^+f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{12}+E_1+E_6)(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_{10}^++f_1^-f_2^-f_5^-f_6^-f_{11}^-f_4^+f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_5-E_6-E_{11}+E_1+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_6^-f_{11}^-f_4^+f_8^+f_{10}^++f_1^-f_2^-f_3^-f_6^-f_{11}^-f_8^+f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_5^-f_6^-f_{11}^-f_4^+f_{12}^++f_1^-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_{12}^+-f_1^-f_2^-f_3^-f_5^-f_6^-f_{10}^-f_{12}^+-f_1^-f_2^-f_5^-f_6^-f_{10}^-f_4^+f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_5-E_6+E_7+E_{12})(-E_1-E_6+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_1^-f_2^-f_3^-f_6^-f_{10}^-f_8^+f_{12}^++f_1^-f_2^-f_6^-f_{10}^-f_4^+f_8^+f_{12}^+-f_1^-f_2^-f_3^-f_6^-f_{11}^-f_8^+f_{12}^+-f_1^-f_2^-f_6^-f_{11}^-f_4^+f_8^+f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_2+E_5+E_8)(-E_1-E_2-E_6+E_7+E_8+E_{12})(-E_1-E_6+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_6^-f_7^-f_{11}^-f_1^+-f_3^-f_4^-f_6^-f_7^-f_{10}^-f_1^+f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_1-E_7+E_5+E_9)(-E_5-E_6-E_{11}+E_1+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^-f_4^-f_7^-f_{10}^-f_1^+f_5^+f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_1-E_7+E_5+E_9)(-E_1-E_7-E_{10}+E_5+E_6+E_{11})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_6^-f_9^-f_{10}^-f_1^+-f_3^-f_4^-f_5^-f_6^-f_9^-f_{11}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_9+E_1+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_9^-f_{10}^-f_1^+f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_9+E_1+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_7^-f_{10}^-f_{12}^-f_1^+f_5^+-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_1^+f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_1-E_7+E_5+E_9)(-E_7-E_{12}+E_5+E_6)(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{12}^-f_1^+-f_3^-f_4^-f_5^-f_9^-f_{11}^-f_{12}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_9+E_1+E_7)(-E_9-E_{12}+E_1+E_6)(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_5^-f_6^-f_7^-f_{11}^--f_2^-f_3^-f_4^-f_6^-f_7^-f_{10}^-f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_2+E_5+E_9)(-E_2-E_5-E_6-E_{11}+E_3+E_4+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{10}^-f_5^+f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_2+E_5+E_9)(-E_3-E_4-E_7-E_{10}+E_2+E_5+E_6+E_{11})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_5^-f_6^-f_9^-f_{10}^--f_2^-f_3^-f_4^-f_5^-f_6^-f_9^-f_{11}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_5-E_9+E_3+E_4+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_2+E_9+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_5-E_9+E_3+E_4+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{10}^-f_{12}^-f_5^+-f_2^-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_5^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_2+E_5+E_9)(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{12}^--f_2^-f_3^-f_4^-f_5^-f_9^-f_{11}^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_5-E_9+E_3+E_4+E_7)(-E_2-E_9-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_6^-f_7^-f_{11}^-f_8^+-f_2^-f_3^-f_4^-f_6^-f_7^-f_8^-f_{10}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_2+E_9)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_6^-f_9^-f_{10}^-f_8^+-f_2^-f_3^-f_4^-f_6^-f_9^-f_{11}^-f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_2+E_9+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_9^-f_{10}^-f_8^+f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{12}^--f_2^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_8^+-f_2^-f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{12}+E_3+E_4+E_6)(-E_2-E_{11}-E_{12}+E_3+E_4+E_{10})} \\
\frac{+f_3^-f_4^-f_6^-f_7^-f_{11}^-f_1^+f_8^+-f_3^-f_4^-f_6^-f_7^-f_8^-f_{10}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_3-E_4-E_6-E_{11}+E_1+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{10}^-f_1^+f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_1-E_7-E_8-E_{10}+E_3+E_4+E_6+E_{11})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_6^-f_9^-f_{10}^-f_1^+f_8^+-f_3^-f_4^-f_6^-f_9^-f_{11}^-f_1^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_6+E_9+E_{12})} \\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_1^+f_8^+f_{11}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{12}^-f_1^+-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-f_1^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_1-E_7-E_8+E_3+E_4+E_9)(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_1^+f_8^+-f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_1^+f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_9+E_1+E_7+E_8)(-E_9-E_{12}+E_1+E_6)(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_6^-f_{11}^-f_1^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_6-E_{11}+E_1+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_5^-f_6^-f_{11}^-f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_5-E_6-E_{11}+E_3+E_4+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_6^-f_{11}^-f_8^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_6^-f_{11}^-f_1^+f_8^+f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6-E_{11}+E_1+E_7+E_8+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_6^-f_{11}^-f_1^+f_{12}^+-f_3^-f_4^-f_5^-f_6^-f_{10}^-f_1^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_6+E_7+E_{12})(-E_1-E_6+E_9+E_{12})(-E_{11}-E_{12}+E_1+E_{10})} \\
\frac{+f_2^-f_3^-f_4^-f_5^-f_6^-f_{10}^-f_{12}^+-f_2^-f_3^-f_4^-f_5^-f_6^-f_{11}^-f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_6+E_7+E_{12})(-E_3-E_4-E_6+E_2+E_9+E_{12})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_6^-f_{10}^-f_1^+f_8^+f_{12}^+-f_3^-f_4^-f_6^-f_{11}^-f_1^+f_8^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_1-E_6+E_9+E_{12})(-E_1-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_6^-f_{10}^-f_8^+f_{12}^+-f_2^-f_3^-f_4^-f_6^-f_{11}^-f_8^+f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_3-E_4-E_6+E_2+E_9+E_{12})(-E_3-E_4-E_{10}+E_2+E_{11}+E_{12})}
\end{pmatrix}$$

$$+\frac{1}{2}\{1,2|V|3,4\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|5,10\}\{9,10|V|11,8\}\{11,12|V|9,2\}$$

$$+f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_2^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- + f_3^- f_4^- f_5^- f_7^-$$

$$+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ f_8^+ - f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ f_8^+ + f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_8^+ + f_1^- f_2^- f_3^- f_7^-$$

$$+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_{11}^+ - f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ f_9^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+ + f_3^- f_4^- f_5^- f_8^-$$

$$\frac{+f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ f_{12}^+ - f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_2^+ f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^+ + f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ + f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ f_{12}^+ + f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- + f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ + f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ f_{12}^+ - f_1^- f_2^- f_5^- f_8^- f_{11}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_5^-}{(-E_1-E_2+E_3+E_4)(-E_2+E_6)(-E_2-E_5+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_8)(-E_{11}-E_{12}+E_2+E_9)}$$

$$+f_1^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- - f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_6^+ + f_1^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_3^- f_4^- f_5^- f_7^-$$

$$+f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_6^+ f_8^+ + f_1^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ - f_1^- f_3^- f_5^- f_6^-$$

$$+f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ - f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+ f_9^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{11}^+ - f_1^- f_5^- f_6^- f_{10}^-$$

$$\frac{+f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_{12}^+ + f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- - f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_6^+ f_{12}^+ + f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^+ + f_1^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ + f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ + f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ + f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+ f_{12}^+ - f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_{12}^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- f_6^+ + f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- + f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_6^- f_7^- f_8^-}{(-E_6+E_2)(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_{10}-E_{12}+E_6+E_8)(-E_{11}-E_{12}+E_6+E_9)}$$

$$\frac{+f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_5^+ - f_1^- f_3^- f_7^- f_8^- f_9^- f_{12}^- f_5^+ - f_1^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ f_5^+ + f_3^- f_4^- f_5^- f_8^-}{(-}$$

$$\frac{+f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{10}^+ f_{12}^+ - f_1^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+ + f_1^- f_3^- f_5^- f_9^-}{(-E}$$

$$\frac{+f_1^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^- f_9^+ + f_1^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ f_9^+ - f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_9^+ - f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E}$$

$$
+\frac{1}{4}\{1,2|V|3,4\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|1,6\}\{9,10|V|11,2\}\{11,12|V|9,8\}
\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- + f_1^- f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ - f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- - f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_4-E_7-E_{11}+E_1+E_5+E_6+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ + f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ - f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_6^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ - f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- - f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+ + f_1^- f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+ + f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ - f_1^- f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_9^-}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_5-E_8+E_1+E_{10})(-E_5-E_8-E_9+E_1+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- - f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- f_8^+ + f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ - f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_2)(-E_7-E_8+E_1+E_6)(-E_5-E_8+E_1+E_{10})(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_8^+ - f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ - f_1^- f_2^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_8^+ + f_1^- f_2^- f_6^- f_{10}^- f_{11}^- f_4^+ f_8^+ - f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_8^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_8^+ + f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_1-E_{10}+E_5+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+ - f_1^- f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_8^+ + f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_8^+ - f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_8^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_1-E_{10}+E_5+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_6^+ f_9^+ + f_1^- f_2^- f_3^- f_7^- f_{11}^- f_6^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{11}^- f_6^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_3-E_4-E_7-E_{11}+E_1+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_1-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_9^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_8^+ f_9^+ + f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_8^+ f_9^+ - f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_8^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_1-E_2-E_{11}+E_5+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_9^+ - f_1^- f_3^- f_4^- f_7^- f_{11}^- f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_{11}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_1-E_6+E_7+E_8)(-E_1-E_2+E_5+E_{12})(-E_1-E_2-E_6+E_7+E_{10}+E_{12})(-E_7-E_{11}-E_{12}+E_1+E_6+E_9)} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_8^+ f_{12}^+ - f_1^- f_2^- f_7^- f_8^- f_9^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_{12}^+ + f_1^- f_2^- f_6^- f_9^- f_4^+ f_8^+ f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_9^- f_8^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_8+E_1+E_6)(-E_1-E_2+E_5+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^+ - f_1^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_7-E_{11}-E_{12}+E_1+E_6+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_8^+ f_{12}^+ + f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^+ - f_1^- f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_{12}^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- f_2^+ - f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- f_2^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_6^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_2^+ f_6^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_2^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_2^+ - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+ f_8^+ + f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_2-E_5-E_8+E_3+E_4+E_{10})(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^- f_2^+ f_8^+ + f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_2^+ f_8^+ - f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_2^+ f_8^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_8^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_{10}+E_2+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_2^+ f_6^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4-E_6-E_9+E_2+E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_2^+ f_8^+ f_9^+ - f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_8^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_2^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_2-E_7-E_{11}-E_{12}+E_3+E_4+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_{12}^+ + f_3^- f_4^- f_6^- f_9^- f_2^+ f_8^+ f_{12}^+ - f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_8^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_3-E_4+E_5+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_{10}^+}{(-E_1-E_2+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_1-E_{10}+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- - f_1^- f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- + f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{10}^+ - f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_{10}+E_5+E_6)(-E_1-E_{10}+E_5+E_8)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- f_2^+ - f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_2^+ + f_3^- f_4^- f_5^- f_6^- f_{11}^- f_2^+ f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+ f_{10}^+}{(-E_3-E_4+E_1+E_2)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_{10}+E_2+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^+ + f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_{11}^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_9^+ - f_1^- f_2^- f_5^- f_7^- f_{11}^- f_4^+ f_9^+}{(-E_1-E_2+E_3+E_4)(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_1-E_2-E_{11}+E_5+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_2^+ f_{11}^+ - f_3^- f_4^- f_5^- f_7^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_4+E_1+E_2)(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^+ - f_1^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_5-E_6-E_9+E_3+E_4+E_7+E_{11})(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_{11}^- f_{10}^+ f_{12}^+ - f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_{12}^+ + f_1^- f_2^- f_6^- f_{11}^- f_4^+ f_{10}^+ f_{12}^+ - f_1^- f_2^- f_6^- f_9^- f_4^+ f_{10}^+ f_{12}^+ - f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_1+E_2+E_6)(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_1^- f_2^- f_6^- f_9^- f_4^+ f_{11}^+ f_{12}^+ + f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^+ f_{12}^+ - f_1^- f_2^- f_7^- f_{11}^- f_4^+ f_9^+ f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_9^+ f_{12}^+}{(-E_1-E_2+E_3+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2+E_5+E_{12})(-E_1-E_6-E_9+E_7+E_{11}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_2^+ f_{12}^+ - f_3^- f_4^- f_6^- f_9^- f_2^+ f_{10}^+ f_{12}^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_2^+ f_{12}^+ + f_3^- f_4^- f_6^- f_{11}^- f_2^+ f_{10}^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_2^+ f_{11}^+ f_{12}^+ - f_3^- f_4^- f_7^- f_{11}^- f_2^+ f_9^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6-E_9+E_2+E_7+E_{11}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^+ + f_1^- f_3^- f_4^- f_6^- f_{11}^- f_{10}^+ f_{12}^+ - f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_1-E_{10}-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_{11}^+ f_{12}^+ - f_1^- f_3^- f_4^- f_7^- f_{11}^- f_9^+ f_{12}^+}{(-E_3-E_4+E_1+E_2)(-E_3-E_4-E_{11}+E_1+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_1-E_6-E_9+E_7+E_{11}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ + f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_6^+ - f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- f_6^+ - f_2^- f_5^- f_7^- f_8^- f_9^- f_4^+ f_6^+}{(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_5-E_6+E_7+E_{10})(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_7-E_8+E_5+E_6+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_6^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_6^+}{(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ f_6^+ + f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ - f_2^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+ - f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_7-E_{10}+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+}{(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_9-E_{10}+E_3+E_4+E_6+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ f_9^+ + f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4-E_6-E_{11}+E_7+E_8+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+}{(-E_7-E_8+E_1+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_4^+ f_6^+ f_{12}^+ - f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ f_{12}^+ - f_2^- f_7^- f_8^- f_{11}^- f_4^+ f_6^+ f_{12}^+ + f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+}{(-E_7-E_8+E_1+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_2-E_7-E_8+E_5+E_6+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_4^+ f_7^+ f_{11}^+ + f_1^- f_3^- f_5^- f_6^- f_9^- f_7^+ f_{11}^+}{(-E_1-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_1-E_5-E_6-E_9+E_3+E_4+E_7+E_{11})(-E_1-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_9^- f_4^+ f_6^+ f_{11}^+ + f_3^- f_5^- f_7^- f_8^- f_9^- f_6^+ f_{11}^+}{(-E_7-E_8+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_5-E_8-E_9+E_3+E_4+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+ + f_1^- f_7^- f_9^- f_{10}^- f_4^+ f_6^+ f_{11}^+}{(-E_1-E_6+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_4+E_{11})(-E_1-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ f_{11}^+ + f_7^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+ f_{11}^+}{(-E_7-E_8+E_1+E_6)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_7-E_8-E_9-E_{10}+E_3+E_4+E_6+E_{11})(-E_8-E_9+E_{11}+E_{12})}
\end{array}\right.
$$

$$-\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|3,2\}\{7,8|V|7,10\}\{9,10|V|9,12\}\{11,12|V|11,6\}f_1^- f_7^- f_9^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_5+E_{10})(-E_2-E_3+E_5+E_{12})} \\ \frac{+f_2^- f_5^- f_6^- - f_2^- f_3^- f_6^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_3)(-E_6+E_8)(-E_6+E_{10})(-E_6+E_{12})} \\ \frac{+f_3^- f_4^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\ \frac{+f_4^- f_5^- f_6^- - f_3^- f_4^- f_6^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_6+E_{10})(-E_6+E_{12})} \\ \frac{+f_2^- f_5^- f_8^- - f_2^- f_3^- f_8^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_8+E_6)(-E_8+E_{10})(-E_8+E_{12})} \\ \frac{+f_3^- f_4^- f_8^- - f_4^- f_5^- f_8^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_8+E_6)(-E_8+E_{10})(-E_8+E_{12})} \\ \frac{+f_2^- f_3^- f_{10}^- - f_2^- f_5^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_{10}+E_6)(-E_{10}+E_8)(-E_{10}+E_{12})} \\ \frac{+f_3^- f_4^- f_{10}^- - f_4^- f_5^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_{10}+E_6)(-E_{10}+E_8)(-E_{10}+E_{12})} \\ \frac{+f_2^- f_5^- f_{12}^- - f_2^- f_3^- f_{12}^-}{(-E_2+E_4)(-E_5-E_{12}+E_2+E_3)(-E_{12}+E_6)(-E_{12}+E_8)(-E_{12}+E_{10})} \\ \frac{+f_4^- f_5^- f_{12}^- - f_3^- f_4^- f_{12}^-}{(-E_4+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_{12}+E_8)(-E_{12}+E_{10})} \\ \frac{+f_5^- f_6^- f_3^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_6+E_{10})(-E_6+E_{12})} \\ \frac{+f_5^- f_8^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_8+E_{10})(-E_8+E_{12})} \\ \frac{+f_5^- f_{10}^- f_3^+}{(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_{10}+E_8)(-E_{10}+E_{12})} \\ \frac{+f_5^- f_{12}^- f_3^+}{(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_{12}+E_8)(-E_{12}+E_{10})} \end{pmatrix}$$

$$-\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|3,2\}\{7,8|V|9,12\}\{9,10|V|7,10\}\{11,12|V|11,6\}f_1^- f_{10}^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_7^- f_5^+ - f_2^- f_3^- f_9^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_7+E_9)(-E_2-E_3+E_5+E_{12})} \\ \frac{+f_2^- f_5^- f_6^- f_9^- + f_2^- f_3^- f_6^- f_7^- - f_2^- f_5^- f_6^- f_7^- - f_2^- f_3^- f_6^- f_9^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_3)(-E_6+E_8)(-E_9+E_7)(-E_6+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_5^+ - f_3^- f_4^- f_9^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_7+E_9)(-E_3-E_4+E_5+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_7^- - f_3^- f_4^- f_6^- f_9^- - f_4^- f_5^- f_6^- f_7^- + f_4^- f_5^- f_6^- f_9^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_6+E_8)(-E_7+E_9)(-E_6+E_{12})} \\ \frac{+f_2^- f_3^- f_8^- f_9^- - f_2^- f_5^- f_8^- f_9^- + f_2^- f_5^- f_7^- f_8^- - f_2^- f_3^- f_7^- f_8^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_8+E_6)(-E_9+E_7)(-E_8+E_{12})} \\ \frac{+f_3^- f_4^- f_8^- f_9^- - f_3^- f_4^- f_7^- f_8^- - f_4^- f_5^- f_8^- f_9^- + f_4^- f_5^- f_7^- f_8^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_8+E_6)(-E_9+E_7)(-E_8+E_{12})} \\ \frac{+f_2^- f_5^- f_9^- f_{12}^- - f_2^- f_3^- f_9^- f_{12}^- + f_2^- f_3^- f_7^- f_{12}^- - f_2^- f_5^- f_7^- f_{12}^-}{(-E_2+E_4)(-E_9+E_7)(-E_5-E_{12}+E_2+E_3)(-E_{12}+E_6)(-E_{12}+E_8)} \\ \frac{+f_3^- f_4^- f_9^- f_{12}^- - f_4^- f_5^- f_9^- f_{12}^- - f_3^- f_4^- f_7^- f_{12}^- + f_4^- f_5^- f_7^- f_{12}^-}{(-E_4+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{12})(-E_{12}+E_6)(-E_{12}+E_8)} \\ \frac{+f_5^- f_6^- f_7^- f_3^+ - f_5^- f_6^- f_9^- f_3^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_7+E_9)(-E_6+E_{12})} \\ \frac{+f_5^- f_8^- f_9^- f_3^+ - f_5^- f_7^- f_8^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_9+E_7)(-E_8+E_{12})} \\ \frac{+f_5^- f_9^- f_{12}^- f_3^+ - f_5^- f_7^- f_{12}^- f_3^+}{(-E_9+E_7)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_{12}+E_8)} \end{pmatrix}$$

$$-\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|3,2\}\{7,8|V|7,10\}\{9,10|V|11,6\}\{11,12|V|9,12\}f_1^- f_7^- f_{12}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_{11}^- f_5^+ - f_2^- f_3^- f_9^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_5+E_{10})(-E_{11}+E_9)} \\ \frac{+f_2^- f_5^- f_6^- f_{11}^- - f_2^- f_3^- f_6^- f_{11}^- + f_2^- f_3^- f_6^- f_9^- - f_2^- f_5^- f_6^- f_9^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_3)(-E_6+E_8)(-E_6+E_{10})(-E_{11}+E_9)} \\ \frac{+f_3^- f_4^- f_{11}^- f_5^+ - f_3^- f_4^- f_9^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_9)} \\ \frac{+f_3^- f_4^- f_6^- f_{11}^- - f_4^- f_5^- f_6^- f_{11}^- + f_4^- f_5^- f_6^- f_9^- - f_3^- f_4^- f_6^- f_9^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_6+E_8)(-E_6+E_{10})(-E_{11}+E_9)} \\ \frac{+f_2^- f_5^- f_8^- f_9^- - f_2^- f_3^- f_8^- f_9^- + f_2^- f_3^- f_8^- f_{11}^- - f_2^- f_5^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_8+E_6)(-E_8+E_{10})(-E_9+E_{11})} \\ \frac{+f_4^- f_5^- f_8^- f_9^- - f_3^- f_4^- f_8^- f_9^- - f_4^- f_5^- f_8^- f_{11}^- + f_3^- f_4^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_8+E_{10})(-E_9+E_{11})} \\ \frac{+f_2^- f_5^- f_{10}^- f_{11}^- - f_2^- f_5^- f_9^- f_{10}^- - f_2^- f_3^- f_{10}^- f_{11}^- + f_2^- f_3^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_{10}+E_6)(-E_{10}+E_8)(-E_{11}+E_9)} \\ \frac{+f_4^- f_5^- f_{10}^- f_{11}^- - f_3^- f_4^- f_{10}^- f_{11}^- + f_3^- f_4^- f_9^- f_{10}^- - f_4^- f_5^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_{10}+E_8)(-E_{11}+E_9)} \\ \frac{+f_5^- f_6^- f_9^- f_3^+ - f_5^- f_6^- f_{11}^- f_3^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_6+E_{10})(-E_9+E_{11})} \\ \frac{+f_5^- f_8^- f_{11}^- f_3^+ - f_5^- f_8^- f_9^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_8+E_{10})(-E_{11}+E_9)} \\ \frac{+f_5^- f_9^- f_{10}^- f_3^+ - f_5^- f_{10}^- f_{11}^- f_3^+}{(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_{10}+E_8)(-E_9+E_{11})} \end{pmatrix}$$

$$
-\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|3,2\}\{7,8|V|9,6\}\{9,10|V|11,10\}\{11,12|V|7,12\}f_1^- f_{10}^- f_{12}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_7^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_2^- f_3^- f_9^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_2^- f_3^- f_{11}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_2^- f_5^- f_6^- f_7^- -f_2^- f_3^- f_6^- f_7^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_3)(-E_6+E_8)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- -f_2^- f_3^- f_6^- f_9^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_3)(-E_6+E_8)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_{11}^- -f_2^- f_3^- f_6^- f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_3)(-E_6+E_8)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_{11}^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_4^- f_5^- f_6^- f_7^- -f_3^- f_4^- f_6^- f_7^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- -f_3^- f_4^- f_6^- f_9^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_4^- f_5^- f_6^- f_{11}^- -f_3^- f_4^- f_6^- f_{11}^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_2^- f_5^- f_7^- f_8^- -f_2^- f_3^- f_7^- f_8^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_8+E_6)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_2^- f_3^- f_8^- f_9^- -f_2^- f_5^- f_8^- f_9^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_8+E_6)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_2^- f_5^- f_8^- f_{11}^- -f_2^- f_3^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_8+E_6)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- -f_4^- f_5^- f_7^- f_8^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_8+E_6)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- -f_4^- f_5^- f_8^- f_9^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_8+E_6)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- -f_4^- f_5^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_8+E_6)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_5^- f_6^- f_7^- f_3^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_5^- f_6^- f_9^- f_3^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_5^- f_6^- f_{11}^- f_3^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_{11}+E_7)(-E_{11}+E_9)} \\
\frac{+f_5^- f_7^- f_8^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_7+E_9)(-E_7+E_{11})} \\
\frac{+f_5^- f_8^- f_9^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_9+E_7)(-E_9+E_{11})} \\
\frac{+f_5^- f_8^- f_{11}^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_{11}+E_7)(-E_{11}+E_9)}
\end{array}\right)
$$

$$
-\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|3,2\}\{7,8|V|9,6\}\{9,10|V|7,12\}\{11,12|V|11,10\}f_1^- f_{11}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_5^+ +f_2^- f_3^- f_7^- f_{12}^- f_5^+ -f_2^- f_3^- f_9^- f_{12}^- f_5^+ -f_2^- f_3^- f_7^- f_{10}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_9+E_7)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{12}^- +f_2^- f_5^- f_6^- f_7^- f_{10}^- +f_2^- f_3^- f_6^- f_9^- f_{10}^- -f_2^- f_5^- f_6^- f_9^- f_{10}^- -f_2^- f_3^- f_6^- f_7^- f_{10}^- +f_2^- f_5^- f_6^- f_9^- f_{12}^- -f_2^- f_3^- f_6^- f_9^- f_{12}^- -f_2^- f_5^- f_6^- f_7^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_6+E_8)(-E_7+E_9)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_5^+ +f_3^- f_4^- f_9^- f_{12}^- f_5^+ -f_3^- f_4^- f_9^- f_{10}^- f_5^+ -f_3^- f_4^- f_7^- f_{12}^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_7+E_9)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^- +f_3^- f_4^- f_6^- f_7^- f_{12}^- +f_4^- f_5^- f_6^- f_7^- f_{10}^- -f_4^- f_5^- f_6^- f_9^- f_{10}^- -f_3^- f_4^- f_6^- f_7^- f_{10}^- +f_4^- f_5^- f_6^- f_9^- f_{12}^- -f_3^- f_4^- f_6^- f_9^- f_{12}^- -f_4^- f_5^- f_6^- f_7^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_6+E_8)(-E_9+E_7)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_9^- f_{12}^- +f_2^- f_5^- f_7^- f_8^- f_{10}^- -f_2^- f_3^- f_7^- f_8^- f_{10}^- +f_2^- f_3^- f_7^- f_8^- f_{12}^- -f_2^- f_5^- f_7^- f_8^- f_{12}^- +f_2^- f_3^- f_8^- f_9^- f_{10}^- -f_2^- f_5^- f_8^- f_9^- f_{10}^- -f_2^- f_3^- f_8^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_8+E_6)(-E_9+E_7)(-E_{12}+E_{10})} \\
\frac{+f_4^- f_5^- f_8^- f_9^- f_{12}^- +f_4^- f_5^- f_7^- f_8^- f_{10}^- +f_3^- f_4^- f_7^- f_8^- f_{12}^- -f_4^- f_5^- f_7^- f_8^- f_{12}^- +f_3^- f_4^- f_8^- f_9^- f_{10}^- -f_4^- f_5^- f_8^- f_9^- f_{10}^- -f_3^- f_4^- f_8^- f_9^- f_{12}^- -f_3^- f_4^- f_7^- f_8^- f_{10}^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_9+E_7)(-E_{12}+E_{10})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_3^+ -f_5^- f_6^- f_7^- f_{10}^- f_3^+ +f_5^- f_6^- f_7^- f_{12}^- f_3^+ -f_5^- f_6^- f_9^- f_{12}^- f_3^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_9+E_7)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_{12}^- f_3^+ +f_5^- f_8^- f_9^- f_{10}^- f_3^+ -f_5^- f_7^- f_8^- f_{10}^- f_3^+ -f_5^- f_8^- f_9^- f_{12}^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_7+E_9)(-E_{12}+E_{10})}
\end{array}\right)
$$

$$-\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|3,2\}\{7,8|V|9,12\}\{9,10|V|11,6\}\{11,12|V|7,10\}f_1^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- + f_2^- f_3^- f_7^- f_{11}^- f_5^+ f_9^+ - f_2^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ - f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_5-E_9-E_{10}+E_2+E_3+E_{11})(-E_5-E_9-E_{12}+E_2+E_3+E_7)} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_5^+ - f_2^- f_3^- f_{11}^- f_{12}^- f_5^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_{11}+E_5+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_5^+ f_{12}^+ - f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_7+E_5+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- - f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^- + f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_2^- f_5^- f_6^- f_7^- f_9^- f_{10}^- - f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- - f_2^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ + f_2^- f_3^- f_6^- f_7^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_3)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_6+E_7)} \\
\frac{+f_2^- f_3^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- + f_2^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- - f_2^- f_3^- f_6^- f_7^- f_{10}^- f_{12}^+ + f_2^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+ - f_2^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_6+E_8)(-E_6-E_7+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- + f_3^- f_4^- f_7^- f_{11}^- f_5^+ f_9^+ - f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_5^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_5-E_9-E_{10}+E_3+E_4+E_{11})(-E_5-E_9-E_{12}+E_3+E_4+E_7)} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_5^+ f_{10}^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_{11}+E_5+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_5^+ f_{12}^+ - f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- - f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- + f_4^- f_5^- f_6^- f_7^- f_9^- f_{10}^- - f_4^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ - f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- + f_3^- f_4^- f_6^- f_7^- f_{11}^- f_9^+ + f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_6+E_7)} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ + f_4^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- - f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{12}^+ - f_4^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^- + f_4^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_6+E_8)(-E_6-E_7+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_2^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- + f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^- + f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+ - f_2^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ + f_2^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- - f_2^- f_3^- f_8^- f_9^- f_{11}^- f_{12}^- - f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_8+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- - f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_8+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- + f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_8+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_4^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ + f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+ - f_4^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- - f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- + f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^- - f_3^- f_4^- f_8^- f_9^- f_{11}^- f_{12}^- + f_4^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_8+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- - f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- + f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_8+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- + f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_3^- f_9^- f_{10}^- f_{11}^- f_{12}^- + f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+}{(-E_2+E_4)(-E_2-E_3-E_{11}+E_5+E_9+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_{12}^- - f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+ + f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_3-E_4-E_{11}+E_5+E_9+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- - f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_7^+ + f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_7^+}{(-E_2+E_4)(-E_5-E_9-E_{12}+E_2+E_3+E_7)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_7^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- - f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_7^+}{(-E_4+E_2)(-E_5-E_9-E_{12}+E_3+E_4+E_7)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_3^+ - f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_3^+ + f_5^- f_6^- f_7^- f_{11}^- f_3^+ f_9^+ - f_5^- f_6^- f_7^- f_9^- f_{10}^- f_3^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{12}+E_6+E_7)} \\
\frac{+f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_3^+ - f_5^- f_6^- f_{11}^- f_{12}^- f_3^+ f_{10}^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_3^+ - f_5^- f_6^- f_7^- f_{10}^- f_3^+ f_{12}^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_7+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_3^+ - f_5^- f_8^- f_9^- f_{11}^- f_{12}^- f_3^+ - f_5^- f_7^- f_8^- f_9^- f_{10}^- f_3^+ + f_5^- f_7^- f_8^- f_{11}^- f_3^+ f_9^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_5^- f_8^- f_{11}^- f_{12}^- f_3^+ f_{10}^+ - f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_3^+ - f_5^- f_7^- f_8^- f_{10}^- f_3^+ f_{12}^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_5^- f_9^- f_{10}^- f_{12}^- f_3^+ f_{11}^+ - f_5^- f_7^- f_9^- f_{10}^- f_3^+ f_{11}^+}{(-E_5-E_9-E_{10}+E_2+E_3+E_{11})(-E_5-E_9-E_{10}+E_3+E_4+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_5^- f_9^- f_{10}^- f_{12}^- f_3^+ f_7^+ - f_5^- f_9^- f_{11}^- f_{12}^- f_3^+ f_7^+}{(-E_5-E_9-E_{12}+E_2+E_3+E_7)(-E_5-E_9-E_{12}+E_3+E_4+E_7)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})}
\end{array}\right)$$

$$-\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|7,6\}\{7,8|V|3,2\}\{9,10|V|9,12\}\{11,12|V|11,8\}f_1^- f_6^- f_9^- f_{11}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^+}{(-E_2+E_4)(-E_5+E_7)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_5+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_8^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^+}{(-E_4+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_8^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_7^+}{(-E_2+E_4)(-E_7+E_5)(-E_2-E_3+E_7+E_8)(-E_2-E_3+E_7+E_{10})(-E_2-E_3+E_7+E_{12})} \\
\frac{+f_2^- f_7^- f_8^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^+}{(-E_4+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_4^- f_7^- f_8^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_5^- f_{10}^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_{10}+E_2+E_3)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_4^- f_5^- f_{10}^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_{10}+E_2+E_3)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_4^- f_7^- f_{10}^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_{10}+E_3+E_4)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_{12}^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_{12}+E_2+E_3)(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_4^- f_5^- f_{12}^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_7^- f_{12}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_{12}+E_2+E_3)(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_4^- f_7^- f_{12}^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_8^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_7+E_8)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_8^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_3+E_7+E_{10})(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_{12})(-E_2-E_3+E_7+E_{12})(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_5^- f_8^- f_3^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_7^- f_8^- f_3^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_7-E_8+E_3+E_4)(-E_8+E_{10})(-E_8+E_{12})} \\
\frac{+f_5^- f_{10}^- f_3^+}{(-E_5+E_7)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_7^- f_{10}^- f_3^+}{(-E_7+E_5)(-E_7-E_{10}+E_2+E_3)(-E_7-E_{10}+E_3+E_4)(-E_{10}+E_8)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_{12}^- f_3^+}{(-E_5+E_7)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_{12}+E_{10})} \\
\frac{+f_7^- f_{12}^- f_3^+}{(-E_7+E_5)(-E_7-E_{12}+E_2+E_3)(-E_7-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_{12}+E_{10})}
\end{array} \right)$$

$$-\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|7,6\}\{7,8|V|3,2\}\{9,10|V|11,8\}\{11,12|V|9,12\}f_1^-f_6^-f_{12}^-\left(\begin{array}{r}
\frac{+f_2^-f_3^-f_5^-f_{11}^- - f_2^-f_3^-f_5^-f_9^-}{(-E_2+E_4)(-E_5+E_7)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_5+E_{10})(-E_{11}+E_9)}\\
\frac{+f_2^-f_5^-f_8^-f_{11}^- - f_2^-f_5^-f_8^-f_9^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_8+E_{10})(-E_{11}+E_9)}\\
\frac{+f_3^-f_4^-f_5^-f_{11}^- - f_3^-f_4^-f_5^-f_9^-}{(-E_4+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_9)}\\
\frac{+f_4^-f_5^-f_8^-f_{11}^- - f_4^-f_5^-f_8^-f_9^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_8+E_{10})(-E_{11}+E_9)}\\
\frac{+f_2^-f_3^-f_7^-f_9^- - f_2^-f_3^-f_7^-f_{11}^-}{(-E_2+E_4)(-E_7+E_5)(-E_2-E_3+E_7+E_8)(-E_2-E_3+E_7+E_{10})(-E_9+E_{11})}\\
\frac{+f_2^-f_7^-f_8^-f_9^- - f_2^-f_7^-f_8^-f_{11}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_8+E_{10})(-E_9+E_{11})}\\
\frac{+f_3^-f_4^-f_7^-f_{11}^- - f_3^-f_4^-f_7^-f_9^-}{(-E_4+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_7+E_{10})(-E_{11}+E_9)}\\
\frac{+f_4^-f_7^-f_8^-f_9^- - f_4^-f_7^-f_8^-f_{11}^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_8+E_{10})(-E_9+E_{11})}\\
\frac{+f_2^-f_5^-f_{10}^-f_{11}^- - f_2^-f_5^-f_9^-f_{10}^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_{10}+E_2+E_3)(-E_{10}+E_8)(-E_{11}+E_9)}\\
\frac{+f_4^-f_5^-f_9^-f_{10}^- - f_4^-f_5^-f_{10}^-f_{11}^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_8)(-E_9+E_{11})}\\
\frac{+f_2^-f_7^-f_{10}^-f_{11}^- - f_2^-f_7^-f_9^-f_{10}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_{10}+E_2+E_3)(-E_{10}+E_8)(-E_{11}+E_9)}\\
\frac{+f_4^-f_7^-f_{10}^-f_{11}^- - f_4^-f_7^-f_9^-f_{10}^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_{10}+E_3+E_4)(-E_{10}+E_8)(-E_{11}+E_9)}\\
\frac{+f_2^-f_3^-f_{11}^-f_8^+ - f_2^-f_3^-f_9^-f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_7+E_8)(-E_8+E_{10})(-E_{11}+E_9)}\\
\frac{+f_3^-f_4^-f_{11}^-f_8^+ - f_3^-f_4^-f_9^-f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_8+E_{10})(-E_{11}+E_9)}\\
\frac{+f_2^-f_3^-f_{11}^-f_{10}^+ - f_2^-f_3^-f_9^-f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_3+E_7+E_{10})(-E_{10}+E_8)(-E_{11}+E_9)}\\
\frac{+f_3^-f_4^-f_{11}^-f_{10}^+ - f_3^-f_4^-f_9^-f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_{10}+E_8)(-E_{11}+E_9)}\\
\frac{+f_5^-f_8^-f_{11}^-f_3^+ - f_5^-f_8^-f_9^-f_3^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_{10})(-E_{11}+E_9)}\\
\frac{+f_7^-f_8^-f_{11}^-f_3^+ - f_7^-f_8^-f_9^-f_3^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_7-E_8+E_3+E_4)(-E_8+E_{10})(-E_{11}+E_9)}\\
\frac{+f_5^-f_9^-f_{10}^-f_3^+ - f_5^-f_{10}^-f_{11}^-f_3^+}{(-E_5+E_7)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_8)(-E_9+E_{11})}\\
\frac{+f_7^-f_9^-f_{10}^-f_3^+ - f_7^-f_{10}^-f_{11}^-f_3^+}{(-E_7+E_5)(-E_7-E_{10}+E_2+E_3)(-E_7-E_{10}+E_3+E_4)(-E_{10}+E_8)(-E_9+E_{11})}
\end{array}\right)$$

$$-\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|7,6\}\{7,8|V|9,12\}\{9,10|V|11,8\}\{11,12|V|3,2\}f_1^- f_6^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_8^- f_9^-}{(-E_2+E_4)(-E_5+E_7)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_8+E_{11})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_9^- f_{11}^+ - f_2^- f_3^- f_5^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_5+E_7)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_8+E_{11})(-E_2-E_3+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_5^- f_8^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_8^- f_{12}^+ - f_2^- f_3^- f_5^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_5+E_7)(-E_2-E_3+E_5+E_{10})(-E_5-E_8+E_9+E_{12})(-E_2-E_3+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_{10}^- f_{12}^+ - f_2^- f_5^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_{10}+E_2+E_3)(-E_5-E_8+E_9+E_{12})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_4+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- - f_3^- f_4^- f_5^- f_9^- f_{11}^+}{(-E_4+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_5-E_8-E_{11}+E_3+E_4+E_9)(-E_3-E_4+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_4^- f_5^- f_9^- f_{10}^- f_{11}^+ - f_4^- f_5^- f_8^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{12}^+ - f_3^- f_4^- f_5^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_5-E_8+E_9+E_{12})(-E_3-E_4+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_8^- f_{10}^- f_{12}^+ - f_4^- f_5^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_{10}+E_3+E_4)(-E_5-E_8+E_9+E_{12})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_9^-}{(-E_2+E_4)(-E_7+E_5)(-E_2-E_3+E_7+E_{10})(-E_2-E_3-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{11}^+ - f_2^- f_3^- f_7^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_7+E_5)(-E_2-E_3+E_7+E_{10})(-E_2-E_3-E_9+E_7+E_8+E_{11})(-E_2-E_3+E_{11}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_{10}+E_2+E_3)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_{10}+E_2+E_3)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{12}^+ - f_2^- f_3^- f_7^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_7+E_5)(-E_2-E_3+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_2-E_3+E_{11}+E_{12})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_{12}^- - f_2^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_{10}+E_2+E_3)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^-}{(-E_4+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{11}^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_3-E_4-E_9+E_7+E_8+E_{11})(-E_3-E_4+E_{11}+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_{10}+E_3+E_4)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_{10}^- f_{11}^- - f_4^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_{10}+E_3+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{12}^- - f_3^- f_4^- f_7^- f_8^- f_{12}^+}{(-E_4+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_3-E_4+E_{11}+E_{12})} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_{12}^- - f_4^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_{10}+E_3+E_4)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8-E_{11}+E_2+E_3+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_4^- f_5^- f_8^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8-E_{11}+E_3+E_4+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8-E_{11}+E_2+E_3+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8-E_{11}+E_3+E_4+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{11}^- f_{12}^- - f_2^- f_5^- f_8^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5+E_7)(-E_9-E_{12}+E_5+E_8)(-E_{11}-E_{12}+E_2+E_3)(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_4^- f_5^- f_9^- f_{11}^- f_{12}^- - f_4^- f_5^- f_8^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_5+E_7)(-E_9-E_{12}+E_5+E_8)(-E_{11}-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_7^- f_9^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_2+E_3)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_4^- f_7^- f_8^- f_{11}^- f_{12}^- - f_4^- f_7^- f_9^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_2^- f_3^- f_8^- f_9^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_3+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_3-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_8^- f_{11}^- f_{10}^+ - f_2^- f_3^- f_9^- f_{10}^+ f_{11}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_3+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_2-E_3+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_8^- f_{10}^+ f_{12}^+ - f_2^- f_3^- f_9^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_3+E_7+E_{10})(-E_2-E_3-E_8+E_9+E_{10}+E_{12})(-E_2-E_3+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^+ f_{11}^+ - f_3^- f_4^- f_8^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_8^- f_{10}^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}-E_{12}+E_3+E_4+E_8)(-E_3-E_4+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_8^+ f_{11}^+}{(-E_2+E_4)(-E_2-E_3-E_9+E_5+E_8+E_{11})(-E_2-E_3-E_9+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_2-E_3+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_8^+ f_{11}^+}{(-E_4+E_2)(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_3-E_4-E_9+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_{11}+E_{12})} \\
\frac{+f_2^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_2+E_3+E_8)} \\
\frac{+f_4^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_2^- f_9^- f_{11}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_2+E_3)} \\
\frac{+f_4^- f_9^- f_{11}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_3+E_4)} \\
\frac{+f_2^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_9^- f_{11}^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_2+E_3)(-E_{11}-E_{12}+E_5+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_4^- f_9^- f_{11}^- f_{12}^- f_{10}^+ - f_4^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_5+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_2^- f_3^- f_9^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_2-E_3-E_8+E_9+E_{10}+E_{12})(-E_2-E_3+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_3-E_4-E_8+E_9+E_{10}+E_{12})(-E_3-E_4+E_{11}+E_{12})}
\end{array} \right.$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_7^-}{(-E_2+E_4)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_7+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$
$$\frac{+f_2^- f_3^- f_5^- f_7^- f_{11}^+}{(-E_2+E_4)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_7+E_5+E_6+E_{11})(-E_2-E_3+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_2+E_4)(-E_9+E_7)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_5-E_6+E_9+E_{12})}$$
$$\frac{+f_2^- f_3^- f_5^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_9+E_7)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_2-E_3+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_5^- f_6^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_7+E_9)(-E_5-E_{10}+E_2+E_3)(-E_7-E_{10}+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$
$$\frac{+f_2^- f_3^- f_6^- f_7^- f_{10}^+}{(-E_2+E_4)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_7-E_{10}+E_6+E_{11})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})}$$
$$\frac{+f_2^- f_3^- f_7^- f_{10}^+ f_{11}^+}{(-E_2+E_4)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_7-E_{10}+E_6+E_{11})(-E_2-E_3+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_5^- f_7^- f_{10}^- f_{11}^+}{(-E_2+E_4)(-E_7+E_9)(-E_5-E_{10}+E_2+E_3)(-E_7-E_{10}+E_6+E_{11})(-E_5-E_{10}+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_9+E_7)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_6+E_9+E_{12})}$$
$$\frac{+f_2^- f_3^- f_6^- f_9^- f_{10}^+}{(-E_2+E_4)(-E_9+E_7)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_2-E_3-E_6+E_9+E_{10}+E_{12})}$$
$$\frac{+f_2^- f_3^- f_9^- f_{10}^+ f_{11}^+}{(-E_2+E_4)(-E_9+E_7)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_2-E_3+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_2+E_4)(-E_9+E_7)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_{10}+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_3^- f_5^- f_7^- f_{12}^-}{(-E_2+E_4)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_2-E_3+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_5^- f_7^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_7+E_9)(-E_5-E_{10}+E_2+E_3)(-E_7-E_{12}+E_5+E_6)(-E_5-E_{10}+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_3^- f_5^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_9+E_7)(-E_2-E_3+E_5+E_{10})(-E_9-E_{12}+E_5+E_6)(-E_2-E_3+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_9+E_7)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{12}+E_5+E_6)(-E_5-E_{10}+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_3^- f_7^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)(-E_2-E_3+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_3^- f_9^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_9+E_7)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}-E_{12}+E_2+E_3+E_6)(-E_2-E_3+E_{11}+E_{12})}$$
$$\frac{+f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_4+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_7+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$
$$\frac{+f_3^- f_4^- f_5^- f_7^- f_{11}^+}{(-E_4+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_7+E_5+E_6+E_{11})(-E_3-E_4+E_{11}+E_{12})}$$
$$\frac{+f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_4+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_6+E_{11})(-E_5-E_6+E_9+E_{12})}$$
$$\frac{+f_3^- f_4^- f_5^- f_9^- f_{11}^+}{(-E_4+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_6+E_{11})(-E_3-E_4+E_{11}+E_{12})}$$
$$\frac{+f_4^- f_5^- f_6^- f_7^- f_{10}^-}{(-E_4+E_2)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$
$$\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^+}{(-E_4+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})}$$
$$\frac{+f_3^- f_4^- f_7^- f_{10}^+ f_{11}^+}{(-E_4+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_6+E_{11})(-E_3-E_4+E_{11}+E_{12})}$$
$$\frac{+f_4^- f_5^- f_7^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_6+E_{11})(-E_5-E_{10}+E_{11}+E_{12})}$$
$$\frac{+f_4^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_6+E_9+E_{12})}$$
$$\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^+}{(-E_4+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_9+E_{10}+E_{12})}$$
$$\frac{+f_3^- f_4^- f_9^- f_{10}^+ f_{11}^+}{(-E_4+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4+E_{11}+E_{12})}$$
$$\frac{+f_4^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_{10}+E_{11}+E_{12})}$$
$$\frac{+f_3^- f_4^- f_5^- f_7^- f_{12}^-}{(-E_4+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_3-E_4+E_{11}+E_{12})}$$
$$\frac{+f_4^- f_5^- f_7^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_5-E_{10}+E_{11}+E_{12})}$$
$$\frac{+f_3^- f_4^- f_5^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{12}+E_5+E_6)(-E_3-E_4+E_{11}+E_{12})}$$
$$\frac{+f_4^- f_5^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{12}+E_5+E_6)(-E_5-E_{10}+E_{11}+E_{12})}$$
$$\frac{+f_3^- f_4^- f_7^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_3-E_4+E_{11}+E_{12})}$$
$$\frac{+f_3^- f_4^- f_9^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}-E_{12}+E_3+E_4+E_6)(-E_3-E_4+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_5^- f_6^- f_{11}^- f_7^+}{(-E_2+E_4)(-E_7+E_9)(-E_5-E_6-E_{11}+E_2+E_3+E_7)(-E_6-E_{11}+E_7+E_{10})(-E_5-E_6+E_7+E_{12})}$$
$$\frac{+f_2^- f_3^- f_7^- f_6^+ f_{11}^+}{(-E_2+E_4)(-E_7+E_9)(-E_2-E_3-E_7+E_5+E_6+E_{11})(-E_6-E_{11}+E_7+E_{10})(-E_2-E_3+E_{11}+E_{12})}$$
$$\frac{+f_4^- f_5^- f_6^- f_{11}^- f_7^+}{(-E_4+E_2)(-E_7+E_9)(-E_5-E_6-E_{11}+E_3+E_4+E_7)(-E_6-E_{11}+E_7+E_{10})(-E_5-E_6+E_7+E_{12})}$$
$$\frac{+f_3^- f_4^- f_7^- f_6^+ f_{11}^+}{(-E_4+E_2)(-E_7+E_9)(-E_3-E_4-E_7+E_5+E_6+E_{11})(-E_6-E_{11}+E_7+E_{10})(-E_3-E_4+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_5^- f_6^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_9+E_7)(-E_5-E_6-E_{11}+E_2+E_3+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_9+E_{12})}$$
$$\frac{+f_2^- f_3^- f_9^- f_6^+ f_{11}^+}{(-E_2+E_4)(-E_9+E_7)(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_2-E_3+E_{11}+E_{12})}$$
$$\frac{+f_4^- f_5^- f_6^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_9+E_7)(-E_5-E_6-E_{11}+E_3+E_4+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_9+E_{12})}$$
$$\frac{+f_3^- f_4^- f_9^- f_6^+ f_{11}^+}{(-E_4+E_2)(-E_9+E_7)(-E_3-E_4-E_9+E_5+E_6+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4+E_{11}+E_{12})}$$
$$\frac{+f_2^- f_7^- f_{10}^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_7+E_9)(-E_7-E_{10}+E_6+E_{11})(-E_7-E_{12}+E_5+E_6)(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)}$$
$$\frac{+f_4^- f_7^- f_{10}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_7+E_9)(-E_7-E_{10}+E_6+E_{11})(-E_7-E_{12}+E_5+E_6)(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)}$$
$$\frac{+f_2^- f_7^- f_{11}^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_7+E_9)(-E_6-E_{11}+E_7+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_2+E_3)}$$
$$\frac{+f_4^- f_7^- f_{11}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_7+E_9)(-E_6-E_{11}+E_7+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_3+E_4)}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- - f_2^- f_3^- f_5^- f_6^- f_7^- f_9^-}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_2-E_3-E_{11}+E_5+E_6+E_9)(-E_2-E_3+E_5+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_7^- f_8^- f_9^- - f_2^- f_5^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_7-E_8+E_2+E_3)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_5+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- - f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_2-E_3-E_{11}+E_7+E_9+E_{10})(-E_2-E_3+E_5+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+ - f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_2-E_3-E_{11}+E_7+E_9+E_{10})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- - f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_7-E_8+E_2+E_3)(-E_7-E_{10}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_5+E_{12})}$$

$$\frac{+f_2^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ - f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_3)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ - f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_5-E_6-E_8+E_2+E_3+E_{10})(-E_5-E_6-E_9+E_2+E_3+E_{11})(-E_2-E_3+E_5+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_9^- f_{10}^- f_8^+ - f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_3+E_5+E_{12})}$$

$$\frac{+f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_8^+ - f_2^- f_3^- f_{10}^- f_{11}^- f_6^+ f_8^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_7^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3-E_{11}+E_5+E_6+E_9)(-E_2-E_3-E_{11}+E_7+E_9+E_{10})(-E_2-E_3+E_5+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_{11}^- f_6^+ f_9^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3-E_{11}+E_5+E_6+E_9)(-E_2-E_3-E_{11}+E_7+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_{11}^- f_8^+ f_9^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})}$$

$$\frac{+f_2^- f_3^- f_{11}^- f_6^+ f_8^+ f_9^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_3)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_5+E_{12})}$$

$$\frac{+f_2^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_3)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^+ - f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3-E_{11}+E_7+E_9+E_{10})(-E_2-E_3+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)}$$

$$\frac{+f_2^- f_3^- f_7^- f_{11}^- f_9^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3-E_{11}+E_7+E_9+E_{10})(-E_2-E_3+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)}$$

$$\frac{+f_2^- f_3^- f_9^- f_{10}^- f_8^+ f_{12}^+ - f_2^- f_3^- f_{10}^- f_{11}^- f_8^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_3+E_5+E_{12})(-E_{10}-E_{12}+E_6+E_8)}$$

$$\frac{+f_2^- f_3^- f_{11}^- f_8^+ f_9^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)}$$

$$\frac{+f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^+ - f_2^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_3)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_5+E_{12})(-E_{10}-E_{12}+E_6+E_8)}$$

$$\frac{+f_2^- f_7^- f_8^- f_{11}^- f_9^+ f_{12}^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_3)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)}$$

$$\frac{+f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^+ - f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3+E_5+E_{12})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)}$$

$$\frac{+f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_{12}^+ - f_2^- f_3^- f_6^- f_9^- f_8^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3+E_5+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)}$$

$$\frac{+f_2^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^+ - f_2^- f_6^- f_7^- f_8^- f_9^- f_{12}^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_3)(-E_7-E_8+E_5+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- - f_3^- f_4^- f_5^- f_6^- f_7^- f_9^-}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_4^- f_5^- f_6^- f_7^- f_8^- f_9^- - f_4^- f_5^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_7-E_8+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_5+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- - f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_{11}+E_7+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_7-E_9-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- - f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_5+E_{12})}$$

$$\frac{+f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ - f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_8^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_5-E_6-E_8+E_3+E_4+E_{10})(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ - f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_6^+ f_8^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_7+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_{11}^- f_6^+ f_9^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4-E_{11}+E_7+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_{11}^- f_8^+ f_9^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_3^- f_4^- f_{11}^- f_6^+ f_8^+ f_9^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_5^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_5+E_{12})}$$

$$\frac{+f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4-E_{11}+E_7+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)}$$

$$\frac{+f_3^- f_4^- f_7^- f_{11}^- f_9^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4-E_{11}+E_7+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)}$$

$$\frac{+f_3^- f_4^- f_9^- f_{10}^- f_8^+ f_{12}^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_8^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_5+E_{12})(-E_{10}-E_{12}+E_6+E_8)}$$

$$\frac{+f_3^- f_4^- f_{11}^- f_8^+ f_9^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)}$$

$$\frac{+f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^+ - f_4^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_5+E_{12})(-E_{10}-E_{12}+E_6+E_8)}$$

$$\frac{+f_4^- f_7^- f_8^- f_{11}^- f_9^+ f_{12}^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)}$$

$$\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)}$$

$$\frac{+f_3^- f_4^- f_6^- f_9^- f_8^+ f_{12}^+ - f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^+ - f_4^- f_6^- f_7^- f_8^- f_9^- f_{12}^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)}$$

$$
-\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|7,12\}\{7,8|V|9,6\}\{9,10|V|3,2\}\{11,12|V|11,10\}f_1^- f_{11}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_7+E_5+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_5^+ f_9^+ - f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_7+E_5+E_6+E_9)(-E_2-E_3+E_9+E_{10})(-E_2-E_3+E_9+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_8^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_2-E_3-E_6+E_7+E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_9^+ - f_2^- f_3^- f_6^- f_9^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_2-E_3+E_9+E_{10})(-E_2-E_3+E_9+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_9^+ - f_2^- f_5^- f_6^- f_8^- f_9^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{10}^+ - f_2^- f_3^- f_7^- f_{10}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_2-E_3+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_{10}^+ - f_2^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^- - f_2^- f_3^- f_6^- f_8^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_2-E_3+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_{12}^- f_5^+ - f_2^- f_3^- f_5^- f_6^- f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_{12}+E_5+E_6)(-E_2-E_3+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{12}^- - f_2^- f_5^- f_6^- f_8^- f_{12}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_{12}+E_5+E_6)(-E_5-E_8+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{12}^- - f_2^- f_3^- f_6^- f_8^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8-E_{12}+E_2+E_3+E_6)(-E_2-E_3+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- - f_3^- f_4^- f_7^- f_5^+ f_9^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_6-E_9+E_3+E_4+E_7)(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_8^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^+ - f_3^- f_4^- f_6^- f_9^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_9^+ - f_4^- f_5^- f_6^- f_8^- f_9^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{10}^+ - f_3^- f_4^- f_7^- f_{10}^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_4+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_{10}^+ - f_4^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^+ f_{10}^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_5^+ - f_3^- f_4^- f_5^- f_6^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_{12}+E_5+E_6)(-E_3-E_4+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{12}^- - f_4^- f_5^- f_6^- f_8^- f_{12}^+}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_{12}+E_5+E_6)(-E_5-E_8+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{12}^- - f_3^- f_4^- f_6^- f_8^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_3-E_4+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_7^+}{(-E_2+E_4)(-E_5-E_6-E_9+E_2+E_3+E_7)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_9^+}{(-E_2+E_4)(-E_2-E_3-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_2-E_3+E_9+E_{10})(-E_2-E_3+E_9+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_7^+}{(-E_4+E_2)(-E_5-E_6-E_9+E_3+E_4+E_7)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^+}{(-E_4+E_2)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_9+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_{10}+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_6^- f_7^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_3)(-E_{10}+E_{12})} \\
\frac{+f_4^- f_6^- f_7^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_3+E_4)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{10}^- - f_2^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_2+E_3)(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_9^- f_{10}^- - f_4^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_7-E_{12}+E_5+E_6)(-E_7-E_8-E_{12}+E_2+E_3+E_6)(-E_{12}+E_{10})} \\
\frac{+f_4^- f_7^- f_8^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_7-E_{12}+E_5+E_6)(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_6^- f_7^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_7-E_{12}+E_5+E_6)(-E_9-E_{12}+E_2+E_3)(-E_{12}+E_{10})} \\
\frac{+f_4^- f_6^- f_7^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_6-E_9+E_7+E_8)(-E_7-E_{12}+E_5+E_6)(-E_9-E_{12}+E_3+E_4)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{12}^- - f_2^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_9-E_{12}+E_2+E_3)(-E_9-E_{12}+E_5+E_8)(-E_{12}+E_{10})} \\
\frac{+f_4^- f_7^- f_8^- f_9^- f_{12}^- - f_4^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_8)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_2-E_3+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^-}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_5^+ - f_2^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_3)(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_5^+ - f_4^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{12}^-}{(-E_2+E_4)(-E_7-E_{12}+E_5+E_6)(-E_2-E_3-E_6+E_7+E_8+E_{12})(-E_2-E_3+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{12}^-}{(-E_4+E_2)(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_3-E_4+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{12}^- - f_2^- f_7^- f_9^- f_{12}^- f_5^+}{(-E_2+E_4)(-E_5-E_6+E_7+E_{12})(-E_9-E_{12}+E_2+E_3)(-E_9-E_{12}+E_5+E_8)(-E_{12}+E_{10})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_{12}^- - f_4^- f_7^- f_9^- f_{12}^- f_5^+}{(-E_4+E_2)(-E_5-E_6+E_7+E_{12})(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_8)(-E_{12}+E_{10})}
\end{array} \right)
$$

$$-\{1,2|V|3,12\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|7,10\}\{9,10|V|11,4\}\{11,12|V|9,2\}f_5^- f_7^- \left(\begin{array}{r}
\frac{+f_1^- f_3^- f_4^- f_{11}^- f_{12}^- - f_1^- f_3^- f_4^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_4^- f_{11}^- + f_1^- f_2^- f_3^- f_4^- f_9^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4+E_1+E_{10})(-E_1-E_{11}+E_3+E_9)(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_1^- f_3^- f_6^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_6^- f_{11}^- + f_1^- f_2^- f_3^- f_6^- f_9^- - f_1^- f_3^- f_6^- f_9^- f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_6+E_{10})(-E_1-E_{11}+E_3+E_9)(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_3^- f_4^- f_{11}^- f_6^+ + f_1^- f_2^- f_6^- f_{11}^- f_4^+ - f_1^- f_2^- f_6^- f_9^- f_4^+ - f_3^- f_4^- f_9^- f_{12}^- f_6^+ - f_1^- f_6^- f_{11}^- f_{12}^- f_4^+ + f_2^- f_3^- f_4^- f_9^- f_6^+ + f_1^- f_6^- f_9^- f_{12}^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_6+E_{10})(-E_4-E_{11}+E_6+E_9)(-E_6-E_{12}+E_2+E_4)} \\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- - f_1^- f_3^- f_8^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_8^- f_{11}^- + f_1^- f_3^- f_8^- f_{11}^- f_{12}^-}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_8+E_{10})(-E_3-E_9+E_1+E_{11})(-E_1-E_2+E_3+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_8^+ + f_2^- f_3^- f_4^- f_{11}^- f_8^+ - f_3^- f_4^- f_{11}^- f_{12}^- f_8^+ + f_1^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_8^- f_9^- f_{12}^- f_4^+ + f_1^- f_2^- f_8^- f_9^- f_4^+ - f_2^- f_3^- f_4^- f_9^- f_8^+ - f_1^- f_2^- f_8^- f_{11}^- f_4^+}{(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_8+E_{10})(-E_8-E_9+E_4+E_{11})(-E_8-E_{12}+E_2+E_4)} \\
\frac{+f_1^- f_2^- f_6^- f_{11}^- f_9^+ + f_3^- f_6^- f_9^- f_{12}^- f_{11}^+ - f_2^- f_3^- f_6^- f_9^- f_{11}^+ - f_1^- f_6^- f_{11}^- f_{12}^- f_9^+}{(-E_6+E_8)(-E_6+E_{10})(-E_1-E_{11}+E_3+E_9)(-E_6-E_9+E_4+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_6^- f_{11}^- f_{12}^- f_2^+ - f_1^- f_2^- f_6^- f_{11}^- f_{12}^+ - f_3^- f_6^- f_9^- f_{12}^- f_2^+ + f_1^- f_2^- f_6^- f_9^- f_{12}^+}{(-E_6+E_8)(-E_6+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_6-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_8^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_2^- f_8^- f_{11}^- f_9^+ - f_3^- f_8^- f_9^- f_{12}^- f_{11}^+ + f_2^- f_3^- f_8^- f_9^- f_{11}^+}{(-E_8+E_6)(-E_8+E_{10})(-E_1-E_{11}+E_3+E_9)(-E_8-E_9+E_4+E_{11})(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_8^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_8^- f_9^- f_{12}^+ + f_3^- f_8^- f_9^- f_{12}^- f_2^+ - f_3^- f_8^- f_{11}^- f_{12}^- f_2^+}{(-E_8+E_6)(-E_8+E_{10})(-E_1-E_2+E_3+E_{12})(-E_8-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_3^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_2^- f_3^- f_9^- f_{10}^- - f_1^- f_3^- f_9^- f_{10}^- f_{12}^- - f_1^- f_2^- f_3^- f_{10}^- f_{11}^-}{(-E_1-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_{10}+E_8)(-E_1-E_{11}+E_3+E_9)(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_9^- f_{12}^- f_{10}^+ - f_1^- f_{10}^- f_{11}^- f_{12}^- f_4^+ + f_2^- f_3^- f_4^- f_9^- f_{10}^+ + f_1^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_1^- f_2^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ - f_2^- f_3^- f_4^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_1+E_{10})(-E_{10}+E_6)(-E_{10}+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_{10}-E_{12}+E_2+E_4)} \\
\frac{+f_1^- f_{10}^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_2^- f_{10}^- f_{11}^- f_9^+ + f_2^- f_3^- f_9^- f_{10}^- f_{11}^+ - f_3^- f_9^- f_{10}^- f_{12}^- f_{11}^+}{(-E_{10}+E_6)(-E_{10}+E_8)(-E_1-E_{11}+E_3+E_9)(-E_9-E_{10}+E_4+E_{11})(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_3^- f_9^- f_{10}^- f_{12}^- f_2^+ - f_3^- f_{10}^- f_{11}^- f_{12}^- f_2^+ - f_1^- f_2^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_{10}^- f_{11}^- f_{12}^+}{(-E_{10}+E_6)(-E_{10}+E_8)(-E_3-E_{12}+E_1+E_2)(-E_{10}-E_{12}+E_2+E_4)(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_{11}^- f_9^+ + f_3^- f_4^- f_9^- f_{12}^- f_{11}^+ - f_2^- f_3^- f_4^- f_9^- f_{11}^+ - f_1^- f_4^- f_{11}^- f_{12}^- f_9^+}{(-E_1-E_{11}+E_3+E_9)(-E_4-E_{11}+E_6+E_9)(-E_4-E_{11}+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_{12}^- f_2^+ + f_1^- f_2^- f_4^- f_9^- f_{12}^+ - f_3^- f_4^- f_9^- f_{12}^- f_2^+ - f_1^- f_2^- f_4^- f_{11}^- f_{12}^+}{(-E_3-E_{12}+E_1+E_2)(-E_2-E_4+E_6+E_{12})(-E_2-E_4+E_8+E_{12})(-E_2-E_4+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)}
\end{array} \right)$$

$$-\{1,2|V|3,12\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|5,8\}\{9,10|V|11,4\}\{11,12|V|9,2\}f_8^- \left(\begin{array}{r}
\frac{+f_1^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_4^- f_7^- f_{11}^- - f_3^- f_4^- f_7^- f_9^- f_{12}^- f_1^+ + f_1^- f_2^- f_3^- f_4^- f_5^- f_{11}^- + f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- - f_1^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- + f_3^- f_4^- f_5^- f_9^- f_{12}^- f_1^+ - f_1^- f_2^- f_3^- f_4^- f_5^- f_9^-}{(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_3-E_4+E_1+E_{10})(-E_1-E_{11}+E_3+E_9)(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- - f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- + f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- + f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- - f_1^- f_3^- f_6^- f_7^- f_9^- f_{12}^- + f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_1-E_6+E_3+E_4)(-E_7+E_5)(-E_6+E_{10})(-E_1-E_{11}+E_3+E_9)(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{11}^- f_6^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ + f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+ + f_2^- f_3^- f_4^- f_5^- f_9^- f_6^+ + f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ - f_1^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+ + f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^- - f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_2^- f_6^- f_7^- f_{11}^- f_4^+ - f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ + f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_6^+ + f_1^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_{11}^- f_6^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_6)(-E_7+E_5)(-E_6+E_{10})(-E_4-E_{11}+E_6+E_9)(-E_2-E_4+E_6+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- + f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- - f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- - f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_5+E_7)(-E_1-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_3-E_9+E_1+E_{11})(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ + f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{10}^+ + f_1^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ + f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^+ - f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ - f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_{10}^+ + f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- - f_1^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{10}^+ + f_1^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- - f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^+}{(-E_7+E_5)(-E_1-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_{10}+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_3^- f_6^- f_7^- f_9^- f_{12}^- f_{11}^+ - f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_9^+ + f_3^- f_5^- f_6^- f_9^- f_{12}^- f_{11}^+ + f_2^- f_3^- f_6^- f_7^- f_9^- f_{11}^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^+ - f_1^- f_2^- f_6^- f_7^- f_{11}^- f_9^+ + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_9^+}{(-E_7+E_5)(-E_6+E_{10})(-E_1-E_{11}+E_3+E_9)(-E_6-E_9+E_4+E_{11})(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+ + f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_9^+ - f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_9^+ + f_1^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_9^+ + f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_9^+ - f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_5+E_7)(-E_{10}+E_6)(-E_3-E_9+E_1+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_{11}^- f_{12}^+ + f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_2^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_{12}^+ + f_3^- f_6^- f_7^- f_9^- f_{12}^- f_2^+ - f_3^- f_5^- f_6^- f_9^- f_{12}^- f_2^+ - f_1^- f_2^- f_5^- f_6^- f_{11}^- f_{12}^+ + f_1^- f_2^- f_5^- f_6^- f_9^- f_{12}^+ - f_3^- f_6^- f_7^- f_{11}^- f_{12}^- f_2^+}{(-E_7+E_5)(-E_6+E_{10})(-E_1-E_2+E_3+E_{12})(-E_6-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_2^+ + f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ - f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^+ + f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_2^+ - f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ + f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^+}{(-E_5+E_7)(-E_{10}+E_6)(-E_1-E_2+E_3+E_{12})(-E_{10}-E_{12}+E_2+E_4)(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{11}^+ - f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- + f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- + f_1^- f_4^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_4^- f_5^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_2^- f_4^- f_7^- f_{11}^- f_9^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^+ + f_1^- f_2^- f_4^- f_5^- f_{11}^- f_9^+}{(-E_7+E_5)(-E_3-E_9+E_1+E_{11})(-E_4-E_{11}+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_7^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_2^+ + f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_2^+ + f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^- - f_1^- f_2^- f_4^- f_7^- f_9^- f_{12}^+ - f_1^- f_2^- f_4^- f_5^- f_{11}^- f_{12}^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{12}^- + f_1^- f_2^- f_4^- f_5^- f_9^- f_{12}^+}{(-E_7+E_5)(-E_1-E_2+E_3+E_{12})(-E_2-E_4+E_6+E_{12})(-E_2-E_4+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)}
\end{array} \right)$$

$$
-\frac{1}{2}\{1,2|V|3,10\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|9,4\}\{9,10|V|11,2\}\{11,12|V|7,12\}f_5^- f_{12}^-
\left(\begin{array}{r}
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_1^+ - f_1^- f_2^- f_3^- f_4^- f_7^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_7+E_1+E_9)(-E_3-E_{10}+E_1+E_2)(-E_7+E_{11})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- - f_1^- f_2^- f_3^- f_4^- f_9^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_1-E_9+E_3+E_7)(-E_3-E_{10}+E_1+E_2)(-E_1-E_9+E_3+E_{11})} \\
\frac{+f_1^- f_2^- f_3^- f_4^- f_{11}^- - f_3^- f_4^- f_{10}^- f_{11}^- f_1^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_1-E_2+E_3+E_{10})(-E_{11}+E_7)(-E_3-E_{11}+E_1+E_9)} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_{10}^- - f_1^- f_2^- f_3^- f_6^- f_7^-}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_3-E_7+E_1+E_9)(-E_3-E_{10}+E_1+E_2)(-E_7+E_{11})} \\
\frac{+f_1^- f_2^- f_6^- f_9^- f_3^+ - f_1^- f_3^- f_6^- f_9^- f_{10}^-}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_1-E_9+E_3+E_7)(-E_1-E_2+E_3+E_{10})(-E_1-E_9+E_3+E_{11})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^- + f_1^- f_2^- f_6^- f_7^- f_4^+ - f_1^- f_6^- f_7^- f_{10}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_6^+}{(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_6-E_7+E_4+E_9)(-E_6-E_{10}+E_2+E_4)(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_6^+ - f_1^- f_6^- f_9^- f_{10}^- f_4^+ - f_2^- f_3^- f_4^- f_9^- f_6^+ + f_1^- f_2^- f_4^- f_6^- f_9^-}{(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_4-E_9+E_6+E_7)(-E_6-E_{10}+E_2+E_4)(-E_4-E_9+E_6+E_{11})} \\
\frac{+f_1^- f_3^- f_6^- f_{10}^- f_{11}^- - f_1^- f_2^- f_3^- f_6^- f_{11}^-}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_3-E_{10}+E_1+E_2)(-E_{11}+E_7)(-E_3-E_{11}+E_1+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_{10}^- f_{11}^- - f_2^- f_3^- f_4^- f_{11}^- f_6^+ + f_1^- f_2^- f_6^- f_{11}^- f_4^+ - f_1^- f_6^- f_{10}^- f_{11}^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_6-E_{10}+E_2+E_4)(-E_{11}+E_7)(-E_6-E_{11}+E_4+E_9)} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{10}^- - f_1^- f_2^- f_3^- f_7^- f_8^-}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_3-E_7+E_1+E_9)(-E_3-E_{10}+E_1+E_2)(-E_7+E_{11})} \\
\frac{+f_1^- f_2^- f_8^- f_9^- f_3^+ - f_1^- f_3^- f_8^- f_9^- f_{10}^-}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_1-E_9+E_3+E_7)(-E_1-E_2+E_3+E_{10})(-E_1-E_9+E_3+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- - f_2^- f_3^- f_4^- f_7^- f_8^+ + f_1^- f_2^- f_7^- f_8^- f_4^+ - f_1^- f_7^- f_8^- f_{10}^- f_4^+}{(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_7-E_8+E_4+E_9)(-E_8-E_{10}+E_2+E_4)(-E_7+E_{11})} \\
\frac{+f_1^- f_2^- f_4^- f_8^- f_9^- + f_3^- f_4^- f_9^- f_{10}^- f_8^+ - f_1^- f_8^- f_9^- f_{10}^- f_4^+ - f_2^- f_3^- f_4^- f_9^- f_8^+}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_4-E_9+E_7+E_8)(-E_2-E_4+E_8+E_{10})(-E_4-E_9+E_8+E_{11})} \\
\frac{+f_1^- f_3^- f_8^- f_{10}^- f_{11}^- - f_1^- f_2^- f_3^- f_8^- f_{11}^-}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_3-E_{10}+E_1+E_2)(-E_{11}+E_7)(-E_3-E_{11}+E_1+E_9)} \\
\frac{+f_2^- f_3^- f_4^- f_{11}^- f_8^+ + f_1^- f_8^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_8^- f_{11}^- f_4^+ - f_3^- f_4^- f_8^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_2-E_4+E_8+E_{10})(-E_{11}+E_7)(-E_8-E_{11}+E_4+E_9)} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_9^- + f_3^- f_6^- f_7^- f_{10}^- f_9^+ - f_1^- f_6^- f_9^- f_{10}^- f_7^+ - f_2^- f_3^- f_6^- f_7^- f_9^+}{(-E_6+E_8)(-E_1-E_9+E_3+E_7)(-E_6-E_7+E_4+E_9)(-E_2-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_9^- + f_3^- f_7^- f_8^- f_{10}^- f_9^+ - f_2^- f_3^- f_7^- f_8^- f_9^+ - f_1^- f_8^- f_9^- f_{10}^- f_7^+}{(-E_8+E_6)(-E_1-E_9+E_3+E_7)(-E_7-E_8+E_4+E_9)(-E_2-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_3^- f_6^- f_7^- f_{10}^- f_2^+ - f_1^- f_2^- f_6^- f_7^- f_{10}^+}{(-E_6+E_8)(-E_3-E_{10}+E_1+E_2)(-E_6-E_{10}+E_2+E_4)(-E_2-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_1^- f_2^- f_6^- f_9^- f_{10}^- - f_3^- f_6^- f_9^- f_{10}^- f_2^+}{(-E_6+E_8)(-E_1-E_2+E_3+E_{10})(-E_6-E_{10}+E_2+E_4)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_2+E_{11})} \\
\frac{+f_3^- f_6^- f_{10}^- f_{11}^- f_2^+ - f_1^- f_2^- f_6^- f_{11}^- f_{10}^+}{(-E_6+E_8)(-E_3-E_{10}+E_1+E_2)(-E_6-E_{10}+E_2+E_4)(-E_{11}+E_7)(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^+ - f_3^- f_7^- f_8^- f_{10}^- f_2^+}{(-E_8+E_6)(-E_1-E_2+E_3+E_{10})(-E_8-E_{10}+E_2+E_4)(-E_2-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_3^- f_8^- f_9^- f_{10}^- f_2^+ - f_1^- f_2^- f_8^- f_9^- f_{10}^-}{(-E_8+E_6)(-E_3-E_{10}+E_1+E_2)(-E_8-E_{10}+E_2+E_4)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_2+E_{11})} \\
\frac{+f_3^- f_8^- f_{10}^- f_{11}^- f_2^+ - f_1^- f_2^- f_8^- f_{11}^- f_{10}^+}{(-E_8+E_6)(-E_3-E_{10}+E_1+E_2)(-E_8-E_{10}+E_2+E_4)(-E_{11}+E_7)(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_3^- f_6^- f_{10}^- f_{11}^- f_9^+ - f_1^- f_6^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_3^- f_6^- f_{11}^- f_9^+ + f_1^- f_2^- f_6^- f_9^- f_{11}^-}{(-E_6+E_8)(-E_{11}+E_7)(-E_3-E_{11}+E_1+E_9)(-E_6-E_{11}+E_4+E_9)(-E_9-E_{10}+E_2+E_{11})} \\
\frac{+f_1^- f_2^- f_8^- f_9^- f_{11}^- - f_1^- f_8^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_3^- f_8^- f_{11}^- f_9^+ + f_3^- f_8^- f_{10}^- f_{11}^- f_9^+}{(-E_8+E_6)(-E_{11}+E_7)(-E_1-E_9+E_3+E_{11})(-E_8-E_{11}+E_4+E_9)(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_1^- f_2^- f_4^- f_9^- f_7^+ - f_2^- f_3^- f_4^- f_7^- f_9^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- - f_1^- f_4^- f_9^- f_{10}^- f_7^+}{(-E_1-E_9+E_3+E_7)(-E_4-E_9+E_6+E_7)(-E_4-E_9+E_7+E_8)(-E_2-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{10}^- - f_1^- f_2^- f_4^- f_7^- f_{10}^+}{(-E_3-E_{10}+E_1+E_2)(-E_2-E_4+E_6+E_{10})(-E_2-E_4+E_8+E_{10})(-E_2-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_1^- f_2^- f_4^- f_9^- f_{10}^+ - f_3^- f_4^- f_9^- f_{10}^- f_2^+}{(-E_1-E_2+E_3+E_{10})(-E_2-E_4+E_6+E_{10})(-E_2-E_4+E_8+E_{10})(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_2+E_{11})} \\
\frac{+f_1^- f_2^- f_4^- f_{11}^- f_{10}^+ - f_2^- f_3^- f_4^- f_{10}^- f_{11}^-}{(-E_1-E_2+E_3+E_{10})(-E_2-E_4+E_6+E_{10})(-E_2-E_4+E_8+E_{10})(-E_{11}+E_7)(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_1^- f_2^- f_4^- f_9^- f_{11}^+ + f_3^- f_4^- f_9^- f_{10}^- f_{11}^- - f_1^- f_4^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_3^- f_4^- f_{11}^- f_9^+}{(-E_{11}+E_7)(-E_1-E_9+E_3+E_{11})(-E_4-E_9+E_6+E_{11})(-E_4-E_9+E_8+E_{11})(-E_2-E_{11}+E_9+E_{10})}
\end{array}\right)
$$

$$
-\frac{1}{2}\{1,2|V|3,10\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|9,4\}\{9,10|V|11,2\}\{11,12|V|5,8\}
\left(\begin{array}{r}
\frac{+f_1^-f_2^-f_3^-f_7^-f_8^-f_{12}^-f_4^+ +f_1^-f_3^-f_4^-f_5^-f_7^-f_8^-f_{10}^- -f_1^-f_2^-f_3^-f_4^-f_5^-f_7^-f_8^- -f_1^-f_3^-f_7^-f_8^-f_{10}^-f_{12}^-f_4^+}{(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_1-E_7-E_8+E_3+E_4+E_{11})(-E_1-E_7-E_{12}+E_3+E_4+E_5)} \\
\frac{+f_1^-f_2^-f_3^-f_4^-f_7^-f_9^-f_{12}^- -f_1^-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^- +f_1^-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_7^+ -f_1^-f_2^-f_3^-f_4^-f_5^-f_9^-f_7^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_1-E_9+E_3+E_{11})(-E_1-E_7-E_{12}+E_3+E_4+E_5)} \\
\frac{+f_1^-f_2^-f_3^-f_4^-f_5^-f_8^-f_9^- -f_1^-f_3^-f_4^-f_5^-f_8^-f_9^-f_{10}^- +f_1^-f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_8^+ -f_1^-f_2^-f_3^-f_4^-f_9^-f_{12}^-f_8^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_1-E_9+E_3+E_{11})(-E_3-E_5-E_8+E_1+E_9+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_7^-f_8^-f_{10}^-f_6^+ +f_1^-f_6^-f_7^-f_8^-f_{10}^-f_{12}^-f_4^+ -f_2^-f_3^-f_4^-f_5^-f_7^-f_8^-f_6^+ -f_1^-f_5^-f_6^-f_7^-f_8^-f_{10}^-f_4^+ +f_2^-f_3^-f_4^-f_7^-f_8^-f_{12}^-f_6^+ -f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{12}^-f_6^+ -f_1^-f_2^-f_6^-f_7^-f_8^-f_{12}^-f_4^+ +f_1^-f_2^-f_5^-f_6^-f_7^-f_8^-f_4^+}{(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_4+E_9)(-E_6-E_{10}+E_2+E_4)(-E_7-E_8+E_6+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_7^-f_9^-f_{12}^-f_6^+ -f_2^-f_3^-f_4^-f_5^-f_9^-f_6^+f_7^+ -f_1^-f_5^-f_6^-f_9^-f_{10}^-f_4^+f_7^+ +f_3^-f_4^-f_5^-f_9^-f_{10}^-f_6^+f_7^+ +f_1^-f_2^-f_5^-f_6^-f_9^-f_4^+f_7^+ -f_1^-f_2^-f_6^-f_7^-f_9^-f_{12}^-f_4^+ -f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^-f_6^+ +f_1^-f_6^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_9+E_7+E_8)(-E_2-E_4+E_6+E_{10})(-E_4-E_9+E_6+E_{11})(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_1^-f_6^-f_9^-f_{10}^-f_{12}^-f_4^+f_8^+ -f_2^-f_3^-f_4^-f_5^-f_8^-f_9^-f_6^+ +f_3^-f_4^-f_5^-f_8^-f_9^-f_{10}^-f_6^+ -f_1^-f_2^-f_6^-f_9^-f_{12}^-f_4^+f_8^+ -f_1^-f_5^-f_6^-f_8^-f_9^-f_{10}^-f_4^+ -f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_6^+f_8^+ +f_2^-f_3^-f_4^-f_9^-f_{12}^-f_6^+f_8^+ +f_1^-f_2^-f_5^-f_6^-f_8^-f_9^-f_4^+}{(-E_1-E_6+E_3+E_4)(-E_4-E_9+E_7+E_8)(-E_6-E_{10}+E_2+E_4)(-E_4-E_9+E_6+E_{11})(-E_4-E_9-E_{12}+E_5+E_6+E_8)} \\
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_7^-f_8^- -f_1^-f_3^-f_5^-f_6^-f_7^-f_8^-f_{10}^- +f_1^-f_3^-f_7^-f_8^-f_{10}^-f_{12}^-f_6^+ -f_1^-f_2^-f_3^-f_7^-f_8^-f_{12}^-f_6^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_7-E_8+E_1+E_6+E_9)(-E_1-E_2+E_3+E_{10})(-E_7-E_8+E_6+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^-f_3^-f_6^-f_7^-f_9^-f_{10}^-f_{12}^- -f_1^-f_2^-f_3^-f_6^-f_7^-f_9^-f_{12}^- +f_1^-f_2^-f_3^-f_5^-f_6^-f_9^-f_7^+ -f_1^-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_7^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_6-E_9+E_3+E_7+E_8)(-E_3-E_{10}+E_1+E_2)(-E_1-E_9+E_3+E_{11})(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_1^-f_2^-f_3^-f_6^-f_9^-f_{12}^-f_8^+ -f_1^-f_3^-f_6^-f_9^-f_{10}^-f_{12}^-f_8^+ -f_1^-f_2^-f_3^-f_5^-f_6^-f_8^-f_9^- +f_1^-f_3^-f_5^-f_6^-f_8^-f_9^-f_{10}^-}{(-E_1-E_6+E_3+E_4)(-E_1-E_6-E_9+E_3+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_1-E_9+E_3+E_{11})(-E_1-E_9-E_{12}+E_3+E_5+E_8)} \\
\frac{+f_1^-f_2^-f_3^-f_4^-f_5^-f_{11}^-f_7^+ +f_1^-f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_{12}^- -f_1^-f_2^-f_3^-f_4^-f_7^-f_{11}^-f_{12}^- -f_1^-f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_7^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_{10})(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_3-E_{11}+E_1+E_9)(-E_3-E_4-E_5+E_1+E_7+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_4^-f_{11}^-f_{12}^-f_8^+ -f_1^-f_3^-f_4^-f_{10}^-f_{11}^-f_{12}^-f_8^+ +f_1^-f_3^-f_4^-f_5^-f_8^-f_{10}^-f_{11}^- -f_1^-f_2^-f_3^-f_4^-f_5^-f_8^-f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_{10})(-E_3-E_4-E_{11}+E_1+E_7+E_8)(-E_3-E_{11}+E_1+E_9)(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_7^+ +f_1^-f_3^-f_6^-f_7^-f_{10}^-f_{11}^-f_{12}^- -f_1^-f_2^-f_3^-f_6^-f_7^-f_{11}^-f_{12}^- -f_1^-f_3^-f_5^-f_6^-f_{10}^-f_{11}^-f_7^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_2+E_3+E_{10})(-E_6-E_{11}+E_7+E_8)(-E_3-E_{11}+E_1+E_9)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^-f_3^-f_6^-f_{10}^-f_{11}^-f_{12}^-f_8^+ -f_1^-f_2^-f_3^-f_6^-f_{11}^-f_{12}^-f_8^+ -f_1^-f_3^-f_5^-f_6^-f_8^-f_{10}^-f_{11}^- +f_1^-f_2^-f_3^-f_5^-f_6^-f_8^-f_{11}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_{10}+E_1+E_2)(-E_6-E_{11}+E_7+E_8)(-E_3-E_{11}+E_1+E_9)(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{12}^- -f_1^-f_2^-f_3^-f_4^-f_5^-f_9^-f_{12}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_{10}+E_1+E_2)(-E_1-E_9+E_3+E_{11})(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_1-E_9-E_{12}+E_3+E_5+E_8)} \\
\frac{+f_1^-f_2^-f_3^-f_4^-f_5^-f_{11}^-f_{12}^- -f_1^-f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_{12}^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_{10})(-E_3-E_{11}+E_1+E_9)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_9^-f_{12}^- -f_1^-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_1-E_2+E_3+E_{10})(-E_1-E_9+E_3+E_{11})(-E_5-E_6+E_7+E_{12})(-E_1-E_9-E_{12}+E_3+E_5+E_8)} \\
\frac{+f_1^-f_3^-f_5^-f_6^-f_{10}^-f_{11}^-f_{12}^- -f_1^-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_{10}+E_1+E_2)(-E_3-E_{11}+E_1+E_9)(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_8^-f_{10}^-f_{12}^+ -f_1^-f_2^-f_3^-f_4^-f_5^-f_8^-f_{12}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_{10}+E_1+E_2)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_3-E_5-E_8+E_1+E_9+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_5^-f_6^-f_8^-f_{10}^-f_{12}^+ -f_1^-f_2^-f_3^-f_5^-f_6^-f_8^-f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_{10}+E_1+E_2)(-E_5-E_6+E_7+E_{12})(-E_3-E_5-E_8+E_1+E_9+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_6^+f_7^+ +f_1^-f_2^-f_5^-f_6^-f_{11}^-f_4^+f_7^+ -f_2^-f_3^-f_4^-f_5^-f_{11}^-f_6^+f_7^+ -f_1^-f_5^-f_6^-f_{10}^-f_{11}^-f_4^+f_7^+ +f_1^-f_6^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_4^+ -f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_6^+ -f_1^-f_2^-f_6^-f_7^-f_{11}^-f_{12}^-f_4^+ +f_2^-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_6^+}{(-E_3-E_4+E_1+E_6)(-E_6-E_{10}+E_2+E_4)(-E_6-E_{11}+E_7+E_8)(-E_6-E_{11}+E_4+E_9)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^-f_6^-f_{10}^-f_{11}^-f_{12}^-f_4^+f_8^+ +f_2^-f_3^-f_4^-f_{11}^-f_{12}^-f_6^+f_8^+ -f_1^-f_2^-f_6^-f_{11}^-f_{12}^-f_4^+f_8^+ +f_3^-f_4^-f_5^-f_8^-f_{10}^-f_{11}^-f_6^+ -f_1^-f_5^-f_6^-f_8^-f_{10}^-f_{11}^-f_4^+ +f_1^-f_2^-f_5^-f_6^-f_8^-f_{11}^-f_4^+ -f_2^-f_3^-f_4^-f_5^-f_8^-f_{11}^-f_6^+ -f_3^-f_4^-f_{10}^-f_{11}^-f_{12}^-f_6^+f_8^+}{(-E_1-E_6+E_3+E_4)(-E_6-E_{10}+E_2+E_4)(-E_6-E_{11}+E_7+E_8)(-E_6-E_{11}+E_4+E_9)(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_2^-f_3^-f_4^-f_5^-f_9^-f_{12}^-f_6^+ +f_1^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^-f_4^+ -f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{12}^-f_6^+ -f_1^-f_2^-f_5^-f_6^-f_9^-f_{12}^-f_4^+}{(-E_3-E_4+E_1+E_6)(-E_2-E_4+E_6+E_{10})(-E_4-E_9+E_6+E_{11})(-E_5-E_6+E_7+E_{12})(-E_4-E_9-E_{12}+E_5+E_6+E_8)} \\
\frac{+f_1^-f_2^-f_5^-f_6^-f_{11}^-f_{12}^-f_4^+ -f_1^-f_5^-f_6^-f_{10}^-f_{11}^-f_{12}^-f_4^+ -f_2^-f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_6^+ +f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_{12}^-f_6^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_4+E_6+E_{10})(-E_6-E_{11}+E_4+E_9)(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_1^-f_5^-f_6^-f_8^-f_{10}^-f_4^+f_{12}^+ +f_2^-f_3^-f_4^-f_5^-f_8^-f_6^+f_{12}^+ -f_1^-f_2^-f_5^-f_6^-f_8^-f_4^+f_{12}^+ -f_3^-f_4^-f_5^-f_8^-f_{10}^-f_6^+f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_6-E_{10}+E_2+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_6-E_8+E_4+E_9+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_7^-f_8^-f_9^-f_{10}^-f_{12}^- +f_1^-f_2^-f_3^-f_5^-f_7^-f_8^-f_9^+ -f_1^-f_2^-f_3^-f_7^-f_8^-f_9^-f_{12}^- -f_1^-f_3^-f_5^-f_7^-f_8^-f_{10}^-f_9^+}{(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_1+E_6+E_9)(-E_3-E_{10}+E_1+E_2)(-E_1-E_9+E_3+E_{11})(-E_1-E_9-E_{12}+E_3+E_5+E_8)} \\
\frac{+f_1^-f_2^-f_5^-f_6^-f_9^-f_7^+f_8^+ -f_3^-f_7^-f_8^-f_{10}^-f_{12}^-f_6^+f_9^+ +f_1^-f_6^-f_9^-f_{10}^-f_{12}^-f_7^+f_8^+ +f_2^-f_3^-f_7^-f_8^-f_{12}^-f_6^+f_9^+ -f_1^-f_5^-f_6^-f_9^-f_{10}^-f_7^+f_8^+ -f_2^-f_3^-f_5^-f_7^-f_8^-f_6^+f_9^+ +f_3^-f_5^-f_7^-f_8^-f_{10}^-f_6^+f_9^+ -f_1^-f_2^-f_6^-f_9^-f_{12}^-f_7^+f_8^+}{(-E_7-E_8+E_4+E_9)(-E_1-E_6-E_9+E_3+E_7+E_8)(-E_2-E_7-E_8+E_6+E_9+E_{10})(-E_7-E_8+E_6+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_7^-f_8^-f_{10}^-f_2^+ -f_1^-f_2^-f_4^-f_5^-f_7^-f_8^-f_{10}^+ +f_1^-f_2^-f_7^-f_8^-f_{12}^-f_4^+f_{10}^+ -f_3^-f_7^-f_8^-f_{10}^-f_{12}^-f_2^+f_4^+}{(-E_7-E_8+E_4+E_9)(-E_3-E_{10}+E_1+E_2)(-E_2-E_4+E_6+E_{10})(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_2-E_4-E_5+E_7+E_{10}+E_{12})} \\
\frac{+f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^-f_2^+ -f_1^-f_2^-f_4^-f_7^-f_9^-f_{12}^-f_{10}^+ +f_1^-f_2^-f_4^-f_5^-f_9^-f_7^+f_{10}^+ -f_3^-f_4^-f_5^-f_9^-f_{10}^-f_2^+f_7^+}{(-E_4-E_9+E_7+E_8)(-E_3-E_{10}+E_1+E_2)(-E_2-E_4+E_6+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_7-E_{10}-E_{12}+E_2+E_4+E_5)} \\
\frac{+f_1^-f_2^-f_4^-f_5^-f_8^-f_9^-f_{10}^+ +f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_2^+f_8^+ -f_1^-f_2^-f_4^-f_9^-f_{12}^-f_8^+f_{10}^+ -f_3^-f_4^-f_5^-f_8^-f_9^-f_{10}^-f_2^+}{(-E_4-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_2-E_4+E_6+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_2-E_5-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_1^-f_2^-f_7^-f_8^-f_9^-f_{12}^-f_{10}^+ +f_3^-f_5^-f_7^-f_8^-f_{10}^-f_2^+f_9^+ -f_3^-f_7^-f_8^-f_9^-f_{10}^-f_{12}^-f_2^+ -f_1^-f_2^-f_5^-f_7^-f_8^-f_9^+f_{10}^+}{(-E_7-E_8+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_2-E_7-E_8+E_6+E_9+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}-E_{12}+E_2+E_5+E_8)} \\
\frac{+f_1^-f_2^-f_7^-f_8^-f_{12}^-f_4^+f_{11}^+ -f_2^-f_3^-f_4^-f_{11}^-f_{12}^-f_7^+f_8^+ +f_2^-f_3^-f_4^-f_5^-f_{11}^-f_7^+f_8^+ -f_1^-f_7^-f_8^-f_{10}^-f_{12}^-f_4^+f_{11}^+ -f_1^-f_2^-f_5^-f_7^-f_8^-f_4^+f_{11}^+ +f_3^-f_4^-f_{10}^-f_{11}^-f_{12}^-f_7^+f_8^+ +f_1^-f_5^-f_7^-f_8^-f_{10}^-f_4^+f_{11}^+ -f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_7^+f_8^+}{(-E_7-E_8+E_4+E_9)(-E_1-E_7-E_8+E_3+E_4+E_{11})(-E_7-E_8+E_6+E_{11})(-E_2-E_4-E_{11}+E_7+E_8+E_{10})(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_1^-f_5^-f_7^-f_8^-f_9^-f_{10}^-f_{11}^+ -f_3^-f_5^-f_7^-f_8^-f_{10}^-f_{11}^-f_9^+ +f_2^-f_3^-f_5^-f_7^-f_8^-f_{11}^-f_9^+ +f_3^-f_7^-f_8^-f_{10}^-f_{11}^-f_{12}^-f_9^+ -f_2^-f_3^-f_7^-f_8^-f_{11}^-f_{12}^-f_9^+ +f_1^-f_2^-f_7^-f_8^-f_9^-f_{12}^-f_{11}^+ -f_1^-f_7^-f_8^-f_9^-f_{10}^-f_{12}^-f_{11}^+ -f_1^-f_2^-f_5^-f_7^-f_8^-f_9^-f_{11}^+}{(-E_7-E_8+E_4+E_9)(-E_7-E_8+E_6+E_{11})(-E_1-E_9+E_3+E_{11})(-E_9-E_{10}+E_2+E_{11})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_5^-f_8^-f_{11}^-f_9^+ -f_1^-f_2^-f_4^-f_5^-f_8^-f_9^-f_{11}^+ -f_1^-f_4^-f_9^-f_{10}^-f_{12}^-f_8^+f_{11}^+ -f_2^-f_3^-f_4^-f_{11}^-f_{12}^-f_8^+f_9^+ +f_1^-f_2^-f_4^-f_9^-f_{12}^-f_8^+f_{11}^+ +f_1^-f_4^-f_5^-f_8^-f_9^-f_{10}^-f_{11}^+ +f_3^-f_4^-f_{10}^-f_{11}^-f_{12}^-f_8^+f_9^+ -f_3^-f_4^-f_5^-f_8^-f_{10}^-f_{11}^-f_9^+}{(-E_4-E_9+E_7+E_8)(-E_3-E_{11}+E_1+E_9)(-E_4-E_9+E_6+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_9^+ -f_1^-f_4^-f_5^-f_9^-f_{10}^-f_7^+f_{11}^+ +f_1^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^-f_{11}^+ -f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_9^+ +f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_7^+f_9^+ -f_2^-f_3^-f_4^-f_5^-f_{11}^-f_7^+f_9^+ +f_1^-f_2^-f_4^-f_5^-f_9^-f_7^+f_{11}^+ -f_1^-f_2^-f_4^-f_7^-f_9^-f_{12}^-f_{11}^+}{(-E_4-E_9+E_7+E_8)(-E_3-E_{11}+E_1+E_9)(-E_4-E_9+E_6+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_7-E_{11}-E_{12}+E_4+E_5+E_9)} \\
\frac{+f_1^-f_7^-f_8^-f_{10}^-f_{12}^-f_4^+f_5^+ +f_2^-f_3^-f_4^-f_5^-f_8^-f_7^+f_{12}^+ -f_3^-f_4^-f_5^-f_8^-f_{10}^-f_7^+f_{12}^+ -f_1^-f_2^-f_7^-f_8^-f_{12}^-f_4^+f_5^+}{(-E_7-E_8+E_4+E_9)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_7-E_{12}+E_5+E_6)(-E_7-E_{10}-E_{12}+E_2+E_4+E_5)(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_7^-f_9^-f_{12}^-f_4^+f_5^+ +f_3^-f_4^-f_5^-f_9^-f_{10}^-f_7^+f_{12}^+ -f_2^-f_3^-f_4^-f_5^-f_9^-f_7^+f_{12}^+ -f_1^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+f_5^+}{(-E_4-E_9+E_7+E_8)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_7-E_{12}+E_5+E_6)(-E_2-E_4-E_5+E_7+E_{10}+E_{12})(-E_4-E_5-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_3^-f_5^-f_7^-f_8^-f_{10}^-f_9^+f_{12}^+ -f_2^-f_3^-f_5^-f_7^-f_8^-f_9^+f_{12}^+ +f_1^-f_2^-f_7^-f_9^-f_{12}^-f_5^+f_8^+ -f_1^-f_7^-f_9^-f_{10}^-f_{12}^-f_5^+f_8^+}{(-E_7-E_8+E_4+E_9)(-E_7-E_{12}+E_5+E_6)(-E_3-E_5-E_8+E_1+E_9+E_{12})(-E_9-E_{10}-E_{12}+E_2+E_5+E_8)(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_5^-f_8^-f_9^+f_{12}^+ +f_1^-f_4^-f_9^-f_{10}^-f_{12}^-f_5^+f_8^+ -f_3^-f_4^-f_5^-f_8^-f_{10}^-f_9^+f_{12}^+ -f_1^-f_2^-f_4^-f_9^-f_{12}^-f_5^+f_8^+}{(-E_4-E_9+E_7+E_8)(-E_3-E_5-E_8+E_1+E_9+E_{12})(-E_4-E_9-E_{12}+E_5+E_6+E_8)(-E_2-E_5-E_8+E_9+E_{10}+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_5^-f_6^-f_7^-f_8^-f_{10}^+ -f_1^-f_2^-f_7^-f_8^-f_{12}^-f_6^+f_{10}^+ +f_3^-f_7^-f_8^-f_{10}^-f_{12}^-f_2^+f_6^+ -f_3^-f_5^-f_6^-f_7^-f_8^-f_{10}^-f_2^+}{(-E_1-E_2+E_3+E_{10})(-E_6-E_{10}+E_2+E_4)(-E_2-E_7-E_8+E_6+E_9+E_{10})(-E_7-E_8+E_6+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^-f_6^-f_7^-f_9^-f_{10}^-f_{12}^-f_2^+ -f_1^-f_2^-f_6^-f_7^-f_9^-f_{12}^-f_{10}^+ +f_1^-f_2^-f_5^-f_6^-f_9^-f_7^+f_{10}^+ -f_3^-f_5^-f_6^-f_9^-f_{10}^-f_2^+f_7^+}{(-E_3-E_{10}+E_1+E_2)(-E_6-E_{10}+E_2+E_4)(-E_6-E_9-E_{10}+E_2+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_1^-f_2^-f_6^-f_9^-f_{12}^-f_8^+f_{10}^+ -f_3^-f_6^-f_9^-f_{10}^-f_{12}^-f_2^+f_8^+ -f_1^-f_2^-f_5^-f_6^-f_8^-f_9^-f_{10}^+ +f_3^-f_5^-f_6^-f_8^-f_9^-f_{10}^-f_2^+}{(-E_1-E_2+E_3+E_{10})(-E_6-E_{10}+E_2+E_4)(-E_6-E_9-E_{10}+E_2+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}-E_{12}+E_2+E_5+E_8)} \\
\frac{+f_1^-f_2^-f_6^-f_7^-f_{11}^-f_{12}^-f_{10}^+ -f_3^-f_6^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_2^+ +f_3^-f_5^-f_6^-f_{10}^-f_{11}^-f_2^+f_7^+ -f_1^-f_2^-f_5^-f_6^-f_{11}^-f_7^+f_{10}^+}{(-E_1-E_2+E_3+E_{10})(-E_6-E_{10}+E_2+E_4)(-E_6-E_{11}+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_3^-f_6^-f_{10}^-f_{11}^-f_{12}^-f_2^+f_8^+ -f_3^-f_5^-f_6^-f_8^-f_{10}^-f_{11}^-f_2^+ -f_1^-f_2^-f_6^-f_{11}^-f_{12}^-f_8^+f_{10}^+ +f_1^-f_2^-f_5^-f_6^-f_8^-f_{11}^-f_{10}^+}{(-E_3-E_{10}+E_1+E_2)(-E_6-E_{10}+E_2+E_4)(-E_6-E_{11}+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_2^+f_7^+ +f_1^-f_2^-f_4^-f_7^-f_{11}^-f_{12}^-f_{10}^+ -f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_2^+ -f_1^-f_2^-f_4^-f_5^-f_{11}^-f_7^+f_{10}^+}{(-E_3-E_{10}+E_1+E_2)(-E_2-E_4+E_6+E_{10})(-E_2-E_4-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_4-E_5+E_7+E_{10}+E_{12})} \\
\frac{+f_1^-f_2^-f_4^-f_{11}^-f_{12}^-f_8^+f_{10}^+ -f_3^-f_4^-f_{10}^-f_{11}^-f_{12}^-f_2^+f_8^+ +f_3^-f_4^-f_5^-f_8^-f_{10}^-f_{11}^-f_2^+ -f_1^-f_2^-f_4^-f_5^-f_8^-f_{11}^-f_{10}^+}{(-E_1-E_2+E_3+E_{10})(-E_2-E_4+E_6+E_{10})(-E_2-E_4-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_1^-f_2^-f_5^-f_6^-f_9^-f_{12}^-f_{10}^+ -f_3^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^-f_2^+}{(-E_1-E_2+E_3+E_{10})(-E_6-E_{10}+E_2+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6+E_7+E_{12})(-E_9-E_{10}-E_{12}+E_2+E_5+E_8)} \\
\frac{+f_1^-f_2^-f_5^-f_6^-f_{11}^-f_{12}^-f_{10}^+ -f_3^-f_5^-f_6^-f_{10}^-f_{11}^-f_{12}^-f_2^+}{(-E_1-E_2+E_3+E_{10})(-E_6-E_{10}+E_2+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_5+E_8)} \\
\frac{+f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{12}^-f_2^+ -f_1^-f_2^-f_4^-f_5^-f_9^-f_{12}^-f_{10}^+}{(-E_3-E_{10}+E_1+E_2)(-E_2-E_4+E_6+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_2-E_4-E_5+E_7+E_{10}+E_{12})(-E_9-E_{10}-E_{12}+E_2+E_5+E_8)}
\end{array}\right.
$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_{10}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_6^-}{(-E_5-E_6+E_2+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_6+E_2+E_9)(-E_3-E_{10}+E_1+E_2)(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_8^- f_{10}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_8^-}{(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_3+E_4)(-E_3-E_6+E_2+E_9)(-E_3-E_{10}+E_1+E_2)(-E_8+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_7^- f_{10}^- f_5^+ - f_1^- f_2^- f_3^- f_4^- f_7^- f_5^+}{(-E_2-E_7+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_7+E_5+E_9)(-E_3-E_{10}+E_1+E_2)(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- - f_1^- f_2^- f_3^- f_5^- f_7^- f_8^-}{(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_3+E_4)(-E_3-E_7+E_5+E_9)(-E_3-E_{10}+E_1+E_2)(-E_8+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_7^+ - f_3^- f_4^- f_5^- f_6^- f_{10}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_7+E_5+E_9)(-E_1-E_5-E_6+E_3+E_7+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_7^+ - f_3^- f_5^- f_6^- f_8^- f_{10}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_3+E_4)(-E_3-E_7+E_5+E_9)(-E_1-E_5-E_6+E_3+E_7+E_{10})(-E_8+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_{10}^- f_4^+ - f_1^- f_2^- f_5^- f_6^- f_8^- f_4^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_3+E_4)(-E_5-E_6-E_8+E_2+E_4+E_9)(-E_5-E_8-E_{10}+E_1+E_2+E_4)(-E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_4^+ - f_2^- f_5^- f_7^- f_8^- f_{10}^- f_4^+}{(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_4+E_9)(-E_1-E_2-E_4+E_5+E_8+E_{10})(-E_8+E_{12})}$$

$$\frac{+f_5^- f_6^- f_8^- f_{10}^- f_4^+ f_7^+ - f_1^- f_5^- f_6^- f_8^- f_4^+ f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_4+E_9)(-E_7-E_8-E_{10}+E_1+E_4+E_6)(-E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_6^- f_7^- - f_2^- f_3^- f_4^- f_6^- f_7^- f_{10}^-}{(-E_2-E_7+E_5+E_6)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_6+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_3-E_4-E_6+E_2+E_7+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_6^+ - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_2-E_7+E_5+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_3-E_6+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_8+E_{12})}$$

$$\frac{+f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+ - f_1^- f_2^- f_7^- f_8^- f_4^+ f_6^+}{(-E_2-E_7+E_5+E_6)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_7-E_8+E_4+E_9)(-E_7-E_8-E_{10}+E_1+E_4+E_6)(-E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_8^- f_9^- - f_2^- f_5^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_5-E_6+E_2+E_7)(-E_2-E_9+E_3+E_6)(-E_5-E_6-E_8+E_2+E_4+E_9)(-E_1-E_6+E_9+E_{10})(-E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_9^- f_6^+ - f_2^- f_4^- f_5^- f_9^- f_{10}^- f_6^+}{(-E_5-E_6+E_2+E_7)(-E_2-E_9+E_3+E_6)(-E_2-E_4-E_9+E_5+E_6+E_8)(-E_1-E_6+E_9+E_{10})(-E_2-E_4-E_9+E_5+E_6+E_{12})}$$

$$\frac{+f_2^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ - f_1^- f_2^- f_7^- f_8^- f_9^- f_6^+}{(-E_2-E_7+E_5+E_6)(-E_2-E_9+E_3+E_6)(-E_7-E_8+E_4+E_9)(-E_9-E_{10}+E_1+E_6)(-E_8+E_{12})}$$

$$\frac{+f_2^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ - f_1^- f_2^- f_4^- f_7^- f_9^- f_6^+}{(-E_2-E_7+E_5+E_6)(-E_2-E_9+E_3+E_6)(-E_4-E_9+E_7+E_8)(-E_9-E_{10}+E_1+E_6)(-E_4-E_9+E_7+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_{12}^- - f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{12}^-}{(-E_5-E_6+E_2+E_7)(-E_3-E_6+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_{12}^- f_6^+ - f_2^- f_3^- f_7^- f_{10}^- f_{12}^- f_6^+}{(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_2-E_7-E_{12}+E_3+E_4+E_6)(-E_{12}+E_8)}$$

$$\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_5-E_6+E_2+E_7)(-E_2-E_9+E_3+E_6)(-E_9-E_{10}+E_1+E_6)(-E_{12}+E_8)(-E_5-E_6-E_{12}+E_2+E_4+E_9)}$$

$$\frac{+f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_2^- f_7^- f_9^- f_{12}^- f_6^+}{(-E_2-E_7+E_5+E_6)(-E_2-E_9+E_3+E_6)(-E_9-E_{10}+E_1+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_4+E_9)}$$

$$\frac{+f_5^- f_6^- f_8^- f_9^- f_{10}^- f_7^+ - f_1^- f_5^- f_6^- f_8^- f_9^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_9+E_3+E_7)(-E_7-E_8+E_4+E_9)(-E_9-E_{10}+E_1+E_6)(-E_8+E_{12})}$$

$$\frac{+f_1^- f_4^- f_5^- f_6^- f_9^- f_7^+ - f_4^- f_5^- f_6^- f_9^- f_{10}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_9+E_3+E_7)(-E_4-E_9+E_7+E_8)(-E_1-E_6+E_9+E_{10})(-E_4-E_9+E_7+E_{12})}$$

$$\frac{+f_2^- f_5^- f_8^- f_9^- f_{10}^- f_7^+ - f_1^- f_2^- f_5^- f_7^- f_8^- f_9^-}{(-E_2-E_7+E_5+E_6)(-E_5-E_9+E_3+E_7)(-E_7-E_8+E_4+E_9)(-E_5-E_9-E_{10}+E_1+E_2+E_7)(-E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_9^- f_7^+ - f_2^- f_4^- f_5^- f_9^- f_{10}^- f_7^+}{(-E_2-E_7+E_5+E_6)(-E_5-E_9+E_3+E_7)(-E_4-E_9+E_7+E_8)(-E_1-E_2-E_7+E_5+E_9+E_{10})(-E_4-E_9+E_7+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_{12}^- - f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{12}^-}{(-E_2-E_7+E_5+E_6)(-E_3-E_7+E_5+E_9)(-E_1-E_2+E_3+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)}$$

$$\frac{+f_1^- f_3^- f_5^- f_6^- f_{12}^- f_7^+ - f_3^- f_5^- f_6^- f_{10}^- f_{12}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_3-E_7+E_5+E_9)(-E_1-E_5-E_6+E_3+E_7+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)}$$

$$\frac{+f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_1^- f_5^- f_6^- f_9^- f_{12}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_9+E_3+E_7)(-E_9-E_{10}+E_1+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_4+E_9)}$$

$$\frac{+f_1^- f_2^- f_5^- f_7^- f_9^- f_{12}^- - f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_7^+}{(-E_2-E_7+E_5+E_6)(-E_5-E_9+E_3+E_7)(-E_1-E_2-E_7+E_5+E_9+E_{10})(-E_{12}+E_8)(-E_7-E_{12}+E_4+E_9)}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_3+E_{10})(-E_5-E_8-E_{10}+E_1+E_2+E_4)(-E_1-E_6+E_9+E_{10})(-E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_6^- f_{10}^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_4+E_5+E_8+E_{10})(-E_1-E_6+E_9+E_{10})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_{10}^+}{(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_3+E_{10})(-E_5-E_8-E_{10}+E_1+E_2+E_4)(-E_1-E_2-E_7+E_5+E_9+E_{10})(-E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_7^- f_5^+ f_{10}^+}{(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_4+E_5+E_8+E_{10})(-E_1-E_2-E_7+E_5+E_9+E_{10})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_7^- f_8^- f_6^+ f_{10}^+}{(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_3+E_{10})(-E_7-E_8-E_{10}+E_1+E_4+E_6)(-E_1-E_6+E_9+E_{10})(-E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_6^- f_7^- f_{10}^+}{(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_3+E_{10})(-E_1-E_4-E_6+E_7+E_8+E_{10})(-E_1-E_6+E_9+E_{10})(-E_1-E_4-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_{12}^- f_{10}^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_3+E_{10})(-E_1-E_6+E_9+E_{10})(-E_{12}+E_8)(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)}$$

$$\frac{+f_1^- f_2^- f_7^- f_{12}^- f_6^+ f_{10}^+}{(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_3+E_{10})(-E_1-E_6+E_9+E_{10})(-E_{12}+E_8)(-E_7-E_{10}-E_{12}+E_1+E_4+E_6)}$$

$$\frac{+f_1^- f_2^- f_5^- f_7^- f_{12}^- f_{10}^+}{(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_7+E_5+E_9+E_{10})(-E_{12}+E_8)(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)}$$

$$\frac{+f_1^- f_5^- f_6^- f_8^- f_7^+ f_{10}^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_7+E_{10})(-E_7-E_8-E_{10}+E_1+E_4+E_6)(-E_1-E_6+E_9+E_{10})(-E_8+E_{12})}$$

$$\frac{+f_1^- f_4^- f_5^- f_6^- f_7^+ f_{10}^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_7+E_{10})(-E_1-E_4-E_6+E_7+E_8+E_{10})(-E_1-E_6+E_9+E_{10})(-E_1-E_4-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_5^- f_6^- f_{12}^- f_7^+ f_{10}^+}{(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_7+E_{10})(-E_1-E_6+E_9+E_{10})(-E_{12}+E_8)(-E_7-E_{10}-E_{12}+E_1+E_4+E_6)}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_{12}^- f_4^+ - f_2^- f_5^- f_6^- f_{10}^- f_{12}^- f_4^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_5-E_6-E_{12}+E_2+E_4+E_9)(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_7^- f_{12}^- f_4^+ - f_2^- f_5^- f_7^- f_{10}^- f_{12}^- f_4^+}{(-E_2-E_7+E_5+E_6)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_7-E_{12}+E_4+E_9)(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}$$

$$\frac{+f_5^- f_6^- f_{10}^- f_{12}^- f_4^+ f_7^+ - f_1^- f_5^- f_6^- f_{12}^- f_4^+ f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_7-E_{12}+E_4+E_9)(-E_7-E_{10}-E_{12}+E_1+E_4+E_6)}$$

$$\frac{+f_2^- f_7^- f_{10}^- f_{12}^- f_4^+ f_6^+ - f_1^- f_2^- f_7^- f_{12}^- f_4^+ f_6^+}{(-E_2-E_7+E_5+E_6)(-E_2-E_7-E_{12}+E_3+E_4+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_4+E_9)(-E_7-E_{10}-E_{12}+E_1+E_4+E_6)}$$

$$\frac{+f_2^- f_3^- f_4^- f_6^- f_{10}^- f_8^+ - f_1^- f_2^- f_3^- f_4^- f_6^- f_8^+}{(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_3-E_6+E_2+E_9)(-E_3-E_{10}+E_1+E_2)(-E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- - f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^-}{(-E_3-E_4+E_5+E_8)(-E_2-E_7-E_8+E_3+E_4+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_8+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_{10}^- f_7^+ f_8^+ - f_1^- f_3^- f_4^- f_6^- f_7^+ f_8^+}{(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_2+E_7+E_8)(-E_7-E_8+E_4+E_9)(-E_7-E_8-E_{10}+E_1+E_4+E_6)(-E_8+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_9^-}{(-E_3-E_4+E_5+E_8)(-E_2-E_9+E_3+E_6)(-E_5-E_9+E_3+E_7)(-E_3-E_{10}+E_1+E_2)(-E_3-E_4+E_5+E_{12})}$$

$$
-\{1,2|V|3,12\}\{3,4|V|5,10\}\{5,6|V|7,2\}\{7,8|V|9,8\}\{9,10|V|11,4\}\{11,12|V|1,6\}f_8^- \left(\begin{array}{c}
\frac{+f_1^- f_3^- f_5^- f_6^- f_{10}^- f_2^+ - f_3^- f_5^- f_6^- f_{10}^- f_{12}^- f_2^+ + f_3^- f_4^- f_5^- f_6^- f_{12}^- f_2^+ - f_1^- f_3^- f_4^- f_5^- f_6^- f_2^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_3-E_6+E_2+E_{11})(-E_1-E_2+E_3+E_{12})} \\
\frac{+f_5^- f_6^- f_{10}^- f_{12}^- f_2^+ f_4^+ - f_1^- f_5^- f_6^- f_{10}^- f_2^+ f_4^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_5-E_6-E_{10}+E_2+E_4+E_{11})(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)} \\
\frac{+f_2^- f_4^- f_5^- f_{11}^- f_{12}^- f_6^+ + f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_6^+ - f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_2^- f_4^- f_5^- f_{11}^- f_6^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_2-E_{11}+E_3+E_6)(-E_2-E_4-E_{11}+E_5+E_6+E_{10})(-E_{11}-E_{12}+E_1+E_6)} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_4^- f_5^- f_6^- f_{12}^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_1-E_2+E_3+E_{12})(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{12}^- - f_2^- f_3^- f_4^- f_5^- f_7^- f_{12}^- + f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- - f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^-}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_3-E_7+E_5+E_{11})(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_{10}^- - f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- + f_3^- f_4^- f_5^- f_6^- f_7^- f_{12}^- - f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^-}{(-E_5-E_6+E_2+E_7)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_3-E_7+E_5+E_{11})(-E_1-E_5-E_6+E_3+E_7+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_2^- f_5^- f_7^- f_{10}^- f_4^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_4+E_{11})(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)} \\
\frac{+f_1^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ - f_5^- f_6^- f_7^- f_{10}^- f_{12}^- f_4^+}{(-E_5-E_6+E_2+E_7)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_4+E_{11})(-E_1-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_{12}^- f_6^+ + f_1^- f_2^- f_3^- f_4^- f_7^- f_6^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_6^+ - f_2^- f_3^- f_4^- f_7^- f_{12}^- f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_3-E_6+E_2+E_{11})(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_4^+ f_6^+ - f_2^- f_7^- f_{10}^- f_{12}^- f_4^+ f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_7-E_{10}+E_4+E_{11})(-E_1-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_2^- f_4^- f_7^- f_{11}^- f_6^+ + f_2^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_2-E_{11}+E_3+E_6)(-E_7-E_{10}+E_4+E_{11})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_4^- f_5^- f_6^- f_{11}^- f_7^+ - f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_7^+ + f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_7^+ - f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_7+E_9)(-E_5-E_{11}+E_3+E_7)(-E_4-E_{11}+E_7+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_5^- f_{11}^- f_7^+ - f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_7^+ - f_2^- f_4^- f_5^- f_{11}^- f_{12}^- f_7^+ + f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_7^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{11}+E_3+E_7)(-E_4-E_{11}+E_7+E_{10})(-E_1-E_2-E_7+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_4^- f_5^- f_7^- f_{12}^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_1-E_2+E_3+E_{12})(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_1-E_2-E_7+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_6^+ f_{12}^+ - f_1^- f_2^- f_4^- f_7^- f_6^+ f_{12}^+}{(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_1-E_2+E_3+E_{12})(-E_7-E_{10}-E_{12}+E_1+E_4+E_6)(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_4^- f_5^- f_6^- f_7^+ f_{12}^+ - f_1^- f_5^- f_6^- f_{10}^- f_7^+ f_{12}^+}{(-E_5-E_6+E_2+E_7)(-E_7+E_9)(-E_1-E_5-E_6+E_3+E_7+E_{12})(-E_1-E_4-E_6+E_7+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- - f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- + f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_9+E_5+E_{11})(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- - f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^- + f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_5-E_6+E_2+E_9)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_9+E_5+E_{11})(-E_1-E_5-E_6+E_3+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ - f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+}{(-E_5-E_6+E_2+E_9)(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_4+E_{11})(-E_9-E_{10}-E_{12}+E_1+E_4+E_6)} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{12}^- f_6^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ - f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_2^- f_3^- f_4^- f_9^- f_6^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_3-E_6+E_2+E_{11})(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_2^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ - f_1^- f_2^- f_9^- f_{10}^- f_4^+ f_6^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_9-E_{10}-E_{12}+E_1+E_4+E_6)} \\
\frac{+f_1^- f_2^- f_4^- f_9^- f_{11}^- f_6^+ - f_1^- f_2^- f_9^- f_{10}^- f_{11}^- f_6^+ + f_2^- f_9^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_4^- f_9^- f_{11}^- f_{12}^- f_6^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_2-E_{11}+E_3+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_9^+ + f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_4^- f_5^- f_6^- f_{11}^- f_9^+ - f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_9^+}{(-E_5-E_6+E_2+E_9)(-E_9+E_7)(-E_5-E_{11}+E_3+E_9)(-E_9-E_{10}+E_4+E_{11})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_9^+ - f_2^- f_4^- f_5^- f_{11}^- f_{12}^- f_9^+ + f_1^- f_2^- f_4^- f_5^- f_{11}^- f_9^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_5-E_{11}+E_3+E_9)(-E_9-E_{10}+E_4+E_{11})(-E_5-E_{11}-E_{12}+E_1+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_4^- f_5^- f_9^- f_{12}^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_1-E_2+E_3+E_{12})(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_1-E_2-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_9^- f_{10}^- f_6^+ f_{12}^+ - f_1^- f_2^- f_4^- f_9^- f_6^+ f_{12}^+}{(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_1-E_2+E_3+E_{12})(-E_9-E_{10}-E_{12}+E_1+E_4+E_6)(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_{10}^- f_9^+ f_{12}^+ - f_1^- f_4^- f_5^- f_6^- f_9^+ f_{12}^+}{(-E_5-E_6+E_2+E_9)(-E_9+E_7)(-E_1-E_5-E_6+E_3+E_9+E_{12})(-E_9-E_{10}-E_{12}+E_1+E_4+E_6)(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_{10}^+ - f_2^- f_3^- f_4^- f_7^- f_{12}^- f_{10}^+}{(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_7-E_{10}+E_4+E_{11})(-E_1-E_2+E_3+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{12}^- f_{10}^+ - f_1^- f_3^- f_4^- f_6^- f_7^- f_{10}^+}{(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_7-E_{10}+E_4+E_{11})(-E_7-E_{10}-E_{12}+E_1+E_4+E_6)} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{12}^- f_{10}^+ - f_1^- f_2^- f_3^- f_4^- f_9^- f_{10}^+}{(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_2-E_9-E_{10}+E_3+E_4+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^+ - f_3^- f_4^- f_6^- f_9^- f_{12}^- f_{10}^+}{(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_6+E_2+E_9+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_1-E_4-E_6+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_{10}^- f_{12}^- f_1^+ - f_3^- f_4^- f_5^- f_7^- f_{12}^- f_1^+}{(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_3-E_7+E_5+E_{11})(-E_3-E_{12}+E_1+E_2)(-E_3-E_7-E_{12}+E_1+E_5+E_6)} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{12}^- f_1^+ - f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_1^+}{(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_9+E_5+E_{11})(-E_3-E_{12}+E_1+E_2)(-E_3-E_9-E_{12}+E_1+E_5+E_6)} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_1^+ f_{10}^+}{(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_4+E_{11})(-E_3-E_{12}+E_1+E_2)(-E_7-E_{10}-E_{12}+E_1+E_4+E_6)} \\
\frac{+f_5^- f_7^- f_{10}^- f_{12}^- f_1^+ f_4^+}{(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_4+E_{11})(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_7-E_{10}-E_{12}+E_1+E_4+E_6)} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_1^+ f_{10}^+}{(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_3-E_{12}+E_1+E_2)(-E_9-E_{10}-E_{12}+E_1+E_4+E_6)} \\
\frac{+f_5^- f_9^- f_{10}^- f_{12}^- f_1^+ f_4^+}{(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_4+E_{11})(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_9-E_{10}-E_{12}+E_1+E_4+E_6)} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^+ - f_2^- f_3^- f_7^- f_{10}^- f_{12}^- f_{11}^+ + f_2^- f_3^- f_4^- f_7^- f_{12}^- f_{11}^+ - f_1^- f_2^- f_3^- f_4^- f_7^- f_{11}^+}{(-E_7+E_9)(-E_2-E_{11}+E_3+E_6)(-E_3-E_7+E_5+E_{11})(-E_7-E_{10}+E_4+E_{11})(-E_1-E_2+E_3+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_{11}^+ + f_3^- f_6^- f_7^- f_{10}^- f_{12}^- f_{11}^+ - f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^+ - f_3^- f_4^- f_6^- f_7^- f_{12}^- f_{11}^+}{(-E_7+E_9)(-E_3-E_6+E_2+E_{11})(-E_3-E_7+E_5+E_{11})(-E_4-E_{11}+E_7+E_{10})(-E_1-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{12}^- f_{11}^+ + f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_1^- f_2^- f_3^- f_4^- f_9^- f_{11}^+}{(-E_9+E_7)(-E_2-E_{11}+E_3+E_6)(-E_3-E_9+E_5+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_3^- f_6^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_3^- f_4^- f_6^- f_9^- f_{12}^- f_{11}^+ + f_1^- f_3^- f_4^- f_6^- f_9^- f_{11}^+ - f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{11}^+}{(-E_9+E_7)(-E_3-E_6+E_2+E_{11})(-E_3-E_9+E_5+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_{11}-E_{12}+E_1+E_6)} \\
\frac{+f_3^- f_7^- f_{10}^- f_{12}^- f_1^+ f_{11}^+ - f_3^- f_4^- f_7^- f_{12}^- f_1^+ f_{11}^+}{(-E_7+E_9)(-E_3-E_7+E_5+E_{11})(-E_7-E_{10}+E_4+E_{11})(-E_3-E_{12}+E_1+E_2)(-E_{11}-E_{12}+E_1+E_6)} \\
\frac{+f_5^- f_{10}^- f_{11}^- f_{12}^- f_1^+ f_7^+ - f_4^- f_5^- f_{11}^- f_{12}^- f_1^+ f_7^+}{(-E_7+E_9)(-E_5-E_{11}+E_3+E_7)(-E_7-E_{10}+E_4+E_{11})(-E_{11}-E_{12}+E_1+E_6)(-E_5-E_{11}-E_{12}+E_1+E_2+E_7)} \\
\frac{+f_3^- f_9^- f_{10}^- f_{12}^- f_1^+ f_{11}^+ - f_3^- f_4^- f_9^- f_{12}^- f_1^+ f_{11}^+}{(-E_9+E_7)(-E_3-E_9+E_5+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_3-E_{12}+E_1+E_2)(-E_{11}-E_{12}+E_1+E_6)} \\
\frac{+f_5^- f_{10}^- f_{11}^- f_{12}^- f_1^+ f_9^+ - f_4^- f_5^- f_{11}^- f_{12}^- f_1^+ f_9^+}{(-E_9+E_7)(-E_5-E_{11}+E_3+E_9)(-E_9-E_{10}+E_4+E_{11})(-E_{11}-E_{12}+E_1+E_6)(-E_5-E_{11}-E_{12}+E_1+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_4^- f_7^- f_{10}^+ f_{12}^+}{(-E_7+E_9)(-E_7-E_{10}+E_4+E_{11})(-E_1-E_2+E_3+E_{12})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})(-E_7-E_{10}-E_{12}+E_1+E_4+E_6)} \\
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_{11}^+ f_{12}^+ - f_1^- f_2^- f_4^- f_7^- f_{11}^+ f_{12}^+}{(-E_7+E_9)(-E_7-E_{10}+E_4+E_{11})(-E_1-E_2+E_3+E_{12})(-E_{11}-E_{12}+E_1+E_6)(-E_1-E_2-E_7+E_5+E_{11}+E_{12})}
\end{array} \right.
$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^-}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_6-E_7+E_1+E_2+E_{11})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_5-E_{10}+E_3+E_4)(-E_3-E_9+E_5+E_{11})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_9^+ - f_1^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_9+E_5+E_{11})(-E_5-E_6-E_7+E_3+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_{10}^- f_4^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_5-E_6-E_7-E_{10}+E_1+E_2+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_4+E_{11})(-E_4-E_6-E_7+E_9+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_6^+ f_7^+ - f_1^- f_2^- f_4^- f_5^- f_{11}^- f_6^+ f_7^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_1-E_2-E_{11}+E_3+E_6+E_7)(-E_5-E_6-E_7-E_{10}+E_1+E_2+E_4+E_{11})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_9^+ - f_1^- f_4^- f_5^- f_6^- f_7^- f_{11}^- f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_{11}+E_3+E_9)(-E_9-E_{10}+E_4+E_{11})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_9^+ - f_1^- f_2^- f_4^- f_5^- f_6^- f_{11}^- f_9^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_5-E_{11}+E_3+E_9)(-E_9-E_{10}+E_4+E_{11})(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_6^- f_7^- f_{12}^+ - f_1^- f_2^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_1-E_2+E_3+E_{12})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_4^- f_5^- f_6^- f_9^- f_{12}^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_1-E_2+E_3+E_{12})(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_5^- f_6^- f_7^- f_{10}^- f_9^+ f_{12}^+ - f_1^- f_4^- f_5^- f_6^- f_7^- f_9^+ f_{12}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_7+E_3+E_9+E_{12})(-E_9-E_{10}-E_{12}+E_4+E_6+E_7)(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_8^- - f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_8^+ - f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_2+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_2-E_5-E_6+E_3+E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{10}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_3+E_4)(-E_3-E_9+E_5+E_{11})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ - f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_3+E_4)(-E_3-E_9+E_5+E_{11})(-E_2-E_5-E_6+E_3+E_8+E_{12})}$$

$$\frac{+f_3^- f_5^- f_6^- f_7^- f_{10}^- f_8^+ f_9^+ - f_3^- f_4^- f_5^- f_6^- f_7^- f_8^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_3-E_9+E_5+E_{11})(-E_5-E_6-E_7+E_3+E_9+E_{12})}$$

$$\frac{+f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_9^+ - f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_9^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_3-E_9+E_5+E_{11})(-E_1-E_7-E_8+E_3+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_{10}^- f_4^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_8^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_2-E_4-E_6+E_8+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_8^- f_9^- f_{10}^- f_4^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_5-E_6+E_1+E_8)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_4+E_{11})(-E_2-E_4-E_6+E_8+E_{10}+E_{12})}$$

$$\frac{+f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_8^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_4+E_{11})(-E_4-E_6-E_7+E_9+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_9^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_4+E_{11})(-E_1-E_4-E_7-E_8+E_5+E_9+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_6^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_3-E_6-E_7+E_1+E_2+E_{11})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_8^- f_9^- f_6^+ - f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_3-E_6-E_9+E_1+E_8+E_{11})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_6^+ f_9^+ - f_1^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ f_9^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_4-E_6+E_1+E_8+E_{10})(-E_3-E_6-E_9+E_1+E_8+E_{11})(-E_1-E_7-E_8+E_3+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_2-E_4-E_6+E_8+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_8^- f_9^- f_{10}^- f_4^+ f_6^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_2-E_4-E_6+E_8+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_7^- f_8^- f_{10}^- f_4^+ f_6^+ f_9^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_8-E_{10}+E_3+E_4+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_4-E_6-E_7+E_9+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_8^- f_{11}^- f_6^+ f_7^+ - f_1^- f_2^- f_8^- f_{10}^- f_{11}^- f_6^+ f_7^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2-E_{11}+E_3+E_6+E_7)(-E_2-E_4-E_{11}+E_7+E_8+E_{10})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_4^- f_5^- f_6^- f_{11}^- f_7^+ f_8^+ - f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_7^+ f_8^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_2+E_9)(-E_2-E_5-E_{11}+E_3+E_7+E_8)(-E_2-E_4-E_{11}+E_7+E_8+E_{10})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_7^+ f_8^+ - f_1^- f_2^- f_4^- f_5^- f_{11}^- f_7^+ f_8^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_2-E_5-E_{11}+E_3+E_7+E_8)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})}$$

$$\frac{+f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_8^+ f_9^+ - f_4^- f_5^- f_6^- f_7^- f_{11}^- f_8^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_2+E_9)(-E_5-E_{11}+E_3+E_9)(-E_9-E_{10}+E_4+E_{11})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ - f_1^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_9^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_5-E_{11}+E_3+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_8^- f_{11}^- f_9^+ - f_1^- f_2^- f_5^- f_8^- f_{10}^- f_{11}^- f_9^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_5-E_{11}+E_3+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_4^- f_5^- f_6^- f_{11}^- f_8^+ f_9^+ - f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_2-E_9+E_7+E_8)(-E_5-E_{11}+E_3+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_6-E_9+E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+ - f_1^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ f_9^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_8-E_{11}+E_3+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_8^- f_{10}^- f_{11}^- f_6^+ f_9^+ - f_1^- f_2^- f_4^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_8-E_{11}+E_3+E_6+E_9)(-E_9-E_{10}+E_4+E_{11})(-E_2-E_6-E_9+E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_7^- f_8^- f_{12}^+ - f_1^- f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{12})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_4^- f_5^- f_8^- f_9^- f_{12}^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{12})(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+ - f_1^- f_2^- f_4^- f_7^- f_8^- f_6^+ f_{12}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{12})(-E_8-E_{10}-E_{12}+E_2+E_4+E_6)(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_8^- f_9^- f_6^+ f_{12}^+ - f_1^- f_2^- f_8^- f_9^- f_{10}^- f_6^+ f_{12}^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{12})(-E_2-E_4-E_6+E_8+E_{10}+E_{12})(-E_2-E_6-E_9+E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_7^- f_{10}^- f_8^+ f_{12}^+ - f_2^- f_4^- f_5^- f_6^- f_7^- f_8^+ f_{12}^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_2+E_9)(-E_2-E_5-E_6+E_3+E_8+E_{12})(-E_8-E_{10}-E_{12}+E_2+E_4+E_6)(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_4^- f_5^- f_6^- f_9^- f_8^+ f_{12}^+ - f_2^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ f_{12}^+}{(-E_5-E_6+E_1+E_8)(-E_2-E_9+E_7+E_8)(-E_2-E_5-E_6+E_3+E_8+E_{12})(-E_2-E_4-E_6+E_8+E_{10}+E_{12})(-E_2-E_6-E_9+E_8+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_5^- f_6^- f_7^- f_8^+ f_9^+ f_{12}^+ - f_5^- f_6^- f_7^- f_{10}^- f_8^+ f_9^+ f_{12}^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_2+E_9)(-E_5-E_6-E_7+E_3+E_9+E_{12})(-E_4-E_6-E_7+E_9+E_{10}+E_{12})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_4^- f_7^- f_8^- f_6^+ f_9^+ f_{12}^+ - f_1^- f_7^- f_8^- f_{10}^- f_6^+ f_9^+ f_{12}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_9+E_{12})(-E_4-E_6-E_7+E_9+E_{10}+E_{12})(-E_6-E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_5^- f_7^- f_8^- f_{10}^- f_9^+ f_{12}^+ - f_1^- f_4^- f_5^- f_7^- f_8^- f_9^+ f_{12}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_7-E_8+E_3+E_9+E_{12})(-E_5-E_9-E_{10}-E_{12}+E_1+E_4+E_7+E_8)(-E_1-E_7-E_8+E_5+E_{11}+E_{12})}$$

$$-\frac{1}{2}\{1,2|V|3,10\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|9,4\}\{9,10|V|7,12\}\{11,12|V|11,2\}f_5^-f_{11}^-\left(\begin{array}{r}
\frac{+f_2^-f_3^-f_4^-f_7^-f_1^+-f_1^-f_2^-f_3^-f_4^-f_9^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_7+E_1+E_9)(-E_1-E_2+E_3+E_{10})(-E_2+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{10}^-f_1^+-f_3^-f_4^-f_9^-f_{10}^-f_1^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_7+E_1+E_9)(-E_3-E_{10}+E_1+E_2)(-E_3-E_{10}+E_1+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_9^-f_{12}^--f_3^-f_4^-f_7^-f_{12}^-f_1^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_1-E_9+E_3+E_7)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_{10})}\\
\frac{+f_1^-f_2^-f_3^-f_6^-f_7^--f_1^-f_2^-f_3^-f_6^-f_9^-}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_3-E_7+E_1+E_9)(-E_1-E_2+E_3+E_{10})(-E_2+E_{12})}\\
\frac{+f_3^-f_6^-f_7^-f_{10}^-f_1^+-f_1^-f_3^-f_6^-f_9^-f_{10}^-}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_3-E_7+E_1+E_9)(-E_3-E_{10}+E_1+E_2)(-E_3-E_{10}+E_1+E_{12})}\\
\frac{+f_1^-f_3^-f_6^-f_7^-f_{12}^--f_1^-f_3^-f_6^-f_9^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_3-E_7+E_1+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_{10})}\\
\frac{+f_2^-f_3^-f_4^-f_6^-f_7^--f_1^-f_2^-f_6^-f_7^-f_4^++f_1^-f_2^-f_6^-f_9^-f_4^+-f_2^-f_3^-f_4^-f_9^-f_6^+}{(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_6-E_7+E_4+E_9)(-E_2-E_4+E_6+E_{10})(-E_2+E_{12})}\\
\frac{+f_1^-f_6^-f_7^-f_{10}^-f_4^+-f_3^-f_6^-f_7^-f_{10}^-f_4^++f_3^-f_4^-f_6^-f_9^-f_{10}^--f_1^-f_6^-f_9^-f_{10}^-f_4^+}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_7+E_4+E_9)(-E_6-E_{10}+E_2+E_4)(-E_6-E_{10}+E_4+E_{12})}\\
\frac{+f_1^-f_6^-f_9^-f_{12}^-f_4^+-f_1^-f_6^-f_7^-f_{12}^-f_4^++f_3^-f_4^-f_6^-f_7^-f_{12}^--f_3^-f_4^-f_9^-f_{12}^-f_6^+}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_4-E_9+E_6+E_7)(-E_{12}+E_2)(-E_4-E_{12}+E_6+E_{10})}\\
\frac{+f_1^-f_2^-f_3^-f_8^-f_9^--f_1^-f_2^-f_3^-f_7^-f_8^-}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_1-E_9+E_3+E_7)(-E_1-E_2+E_3+E_{10})(-E_2+E_{12})}\\
\frac{+f_3^-f_7^-f_8^-f_{10}^-f_1^+-f_1^-f_3^-f_8^-f_9^-f_{10}^-}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_3-E_7+E_1+E_9)(-E_3-E_{10}+E_1+E_2)(-E_3-E_{10}+E_1+E_{12})}\\
\frac{+f_1^-f_3^-f_7^-f_8^-f_{12}^--f_1^-f_3^-f_8^-f_9^-f_{12}^-}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_3-E_7+E_1+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_{10})}\\
\frac{+f_1^-f_2^-f_8^-f_9^-f_4^+-f_1^-f_2^-f_7^-f_8^-f_4^++f_2^-f_3^-f_4^-f_7^-f_8^--f_2^-f_3^-f_4^-f_9^-f_8^+}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_4-E_9+E_7+E_8)(-E_2-E_4+E_8+E_{10})(-E_2+E_{12})}\\
\frac{+f_1^-f_8^-f_9^-f_{10}^-f_4^+-f_3^-f_4^-f_8^-f_9^-f_{10}^-+f_3^-f_7^-f_8^-f_{10}^-f_4^+-f_1^-f_7^-f_8^-f_{10}^-f_4^+}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_4-E_9+E_7+E_8)(-E_8-E_{10}+E_2+E_4)(-E_8-E_{10}+E_4+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{12}^--f_3^-f_4^-f_9^-f_{12}^-f_8^++f_1^-f_8^-f_9^-f_{12}^-f_4^+-f_1^-f_7^-f_8^-f_{12}^-f_4^+}{(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_7-E_8+E_4+E_9)(-E_{12}+E_2)(-E_4-E_{12}+E_8+E_{10})}\\
\frac{+f_1^-f_2^-f_6^-f_9^-f_7^+-f_2^-f_3^-f_6^-f_7^-f_9^+}{(-E_6+E_8)(-E_1-E_9+E_3+E_7)(-E_6-E_7+E_4+E_9)(-E_2-E_7+E_9+E_{10})(-E_2+E_{12})}\\
\frac{+f_1^-f_6^-f_9^-f_{10}^-f_7^+-f_3^-f_6^-f_7^-f_9^-f_{10}^-}{(-E_6+E_8)(-E_1-E_9+E_3+E_7)(-E_6-E_7+E_4+E_9)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_7+E_{12})}\\
\frac{+f_3^-f_6^-f_7^-f_{12}^-f_9^+-f_1^-f_6^-f_9^-f_{12}^-f_7^+}{(-E_6+E_8)(-E_3-E_7+E_1+E_9)(-E_6-E_7+E_4+E_9)(-E_{12}+E_2)(-E_7-E_{12}+E_9+E_{10})}\\
\frac{+f_2^-f_3^-f_7^-f_8^-f_9^+-f_1^-f_2^-f_8^-f_9^-f_7^+}{(-E_8+E_6)(-E_3-E_7+E_1+E_9)(-E_7-E_8+E_4+E_9)(-E_2-E_7+E_9+E_{10})(-E_2+E_{12})}\\
\frac{+f_3^-f_7^-f_8^-f_9^-f_{10}^--f_1^-f_8^-f_9^-f_{10}^-f_7^+}{(-E_8+E_6)(-E_3-E_7+E_1+E_9)(-E_7-E_8+E_4+E_9)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_7+E_{12})}\\
\frac{+f_1^-f_8^-f_9^-f_{12}^-f_7^+-f_3^-f_7^-f_8^-f_{12}^-f_9^+}{(-E_8+E_6)(-E_1-E_9+E_3+E_7)(-E_7-E_8+E_4+E_9)(-E_{12}+E_2)(-E_7-E_{12}+E_9+E_{10})}\\
\frac{+f_1^-f_2^-f_6^-f_9^-f_{10}^+-f_3^-f_6^-f_9^-f_{10}^-f_2^++f_2^-f_3^-f_6^-f_7^-f_{10}^--f_1^-f_2^-f_6^-f_7^-f_{10}^+}{(-E_6+E_8)(-E_1-E_2+E_3+E_{10})(-E_6-E_{10}+E_2+E_4)(-E_9-E_{10}+E_2+E_7)(-E_2+E_{12})}\\
\frac{+f_1^-f_2^-f_8^-f_9^-f_{10}^+-f_3^-f_8^-f_9^-f_{10}^-f_2^++f_2^-f_3^-f_7^-f_8^-f_{10}^--f_1^-f_2^-f_7^-f_8^-f_{10}^+}{(-E_8+E_6)(-E_1-E_2+E_3+E_{10})(-E_8-E_{10}+E_2+E_4)(-E_9-E_{10}+E_2+E_7)(-E_2+E_{12})}\\
\frac{+f_1^-f_6^-f_7^-f_{12}^-f_{10}^+-f_3^-f_6^-f_7^-f_{10}^-f_{12}^--f_1^-f_6^-f_9^-f_{12}^-f_{10}^++f_3^-f_6^-f_9^-f_{10}^-f_{12}^+}{(-E_6+E_8)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_{10})(-E_6-E_{10}+E_4+E_{12})(-E_7-E_{12}+E_9+E_{10})}\\
\frac{+f_1^-f_8^-f_9^-f_{12}^-f_{10}^+-f_3^-f_8^-f_9^-f_{10}^-f_{12}^+-f_1^-f_7^-f_8^-f_{12}^-f_{10}^++f_3^-f_7^-f_8^-f_{10}^-f_{12}^-}{(-E_8+E_6)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_{10})(-E_8-E_{10}+E_4+E_{12})(-E_9-E_{10}+E_7+E_{12})}\\
\frac{+f_1^-f_2^-f_4^-f_9^-f_7^+-f_2^-f_3^-f_4^-f_7^-f_9^-}{(-E_1-E_9+E_3+E_7)(-E_4-E_9+E_6+E_7)(-E_4-E_9+E_7+E_8)(-E_2-E_7+E_9+E_{10})(-E_2+E_{12})}\\
\frac{+f_1^-f_4^-f_9^-f_{10}^-f_7^+-f_3^-f_4^-f_9^-f_{10}^-f_7^+}{(-E_1-E_9+E_3+E_7)(-E_4-E_9+E_6+E_7)(-E_4-E_9+E_7+E_8)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_9^-f_{12}^--f_1^-f_4^-f_9^-f_{12}^-f_7^+}{(-E_3-E_7+E_1+E_9)(-E_4-E_9+E_6+E_7)(-E_4-E_9+E_7+E_8)(-E_{12}+E_2)(-E_7-E_{12}+E_9+E_{10})}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{10}^+-f_1^-f_2^-f_4^-f_7^-f_{10}^+-f_2^-f_3^-f_4^-f_9^-f_{10}^-+f_1^-f_2^-f_4^-f_9^-f_{10}^+}{(-E_3-E_{10}+E_1+E_2)(-E_2-E_4+E_6+E_{10})(-E_2-E_4+E_8+E_{10})(-E_2-E_7+E_9+E_{10})(-E_2+E_{12})}\\
\frac{+f_1^-f_4^-f_7^-f_{12}^-f_{10}^+-f_1^-f_4^-f_9^-f_{12}^-f_{10}^+-f_3^-f_4^-f_7^-f_{12}^-f_{10}^++f_3^-f_4^-f_9^-f_{10}^-f_{12}^-}{(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_{10})(-E_4-E_{12}+E_6+E_{10})(-E_4-E_{12}+E_8+E_{10})(-E_7-E_{12}+E_9+E_{10})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|3,8\}\{3,4|V|1,6\}\{5,6|V|7,4\}\{7,8|V|9,12\}\{9,10|V|5,10\}\{11,12|V|11,2\}f_{10}^-f_{11}^- \begin{pmatrix}
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- - f_1^- f_2^- f_3^- f_4^- f_5^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_5+E_1+E_7)(-E_1-E_2+E_3+E_8)(-E_5+E_9)(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- - f_3^- f_4^- f_5^- f_8^- f_1^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_5+E_1+E_7)(-E_3-E_8+E_1+E_2)(-E_5+E_9)(-E_3-E_8+E_1+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_3^+ - f_1^- f_2^- f_3^- f_4^- f_7^-}{(-E_1-E_6+E_3+E_4)(-E_1-E_7+E_3+E_5)(-E_1-E_2+E_3+E_8)(-E_1-E_7+E_3+E_9)(-E_2+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- - f_1^- f_3^- f_6^- f_7^- f_8^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_7+E_3+E_5)(-E_3-E_8+E_1+E_2)(-E_1-E_7+E_3+E_9)(-E_3-E_8+E_1+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_{12}^- - f_1^- f_3^- f_4^- f_5^- f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_5+E_1+E_7)(-E_5+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_8)} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{12}^- - f_1^- f_6^- f_7^- f_{12}^- f_3^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_7+E_3+E_5)(-E_1-E_7+E_3+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_8)} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^+ - f_1^- f_2^- f_5^- f_6^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_4+E_7)(-E_2-E_4+E_6+E_8)(-E_5+E_9)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- - f_1^- f_5^- f_6^- f_8^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_4+E_7)(-E_6-E_8+E_2+E_4)(-E_5+E_9)(-E_6-E_8+E_4+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_6^- f_7^- - f_2^- f_3^- f_4^- f_7^- f_6^+}{(-E_1-E_6+E_3+E_4)(-E_4-E_7+E_5+E_6)(-E_2-E_4+E_6+E_8)(-E_4-E_7+E_6+E_9)(-E_2+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_8^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_6^+}{(-E_1-E_6+E_3+E_4)(-E_4-E_7+E_5+E_6)(-E_6-E_8+E_2+E_4)(-E_4-E_7+E_6+E_9)(-E_6-E_8+E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{12}^- f_6^+ - f_1^- f_5^- f_6^- f_{12}^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_4+E_7)(-E_5+E_9)(-E_{12}+E_2)(-E_4-E_{12}+E_6+E_8)} \\
\frac{+f_1^- f_4^- f_6^- f_7^- f_{12}^- - f_3^- f_4^- f_7^- f_{12}^- f_6^+}{(-E_1-E_6+E_3+E_4)(-E_4-E_7+E_5+E_6)(-E_4-E_7+E_6+E_9)(-E_{12}+E_2)(-E_4-E_{12}+E_6+E_8)} \\
\frac{+f_1^- f_2^- f_3^- f_4^- f_9^- - f_1^- f_2^- f_3^- f_6^- f_9^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_8)(-E_9+E_5)(-E_3-E_9+E_1+E_7)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_1^+ - f_1^- f_3^- f_6^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_8+E_1+E_2)(-E_9+E_5)(-E_3-E_9+E_1+E_7)(-E_3-E_8+E_1+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_6^+ - f_1^- f_2^- f_6^- f_9^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_2-E_4+E_6+E_8)(-E_9+E_5)(-E_6-E_9+E_4+E_7)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- - f_1^- f_6^- f_8^- f_9^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_6-E_8+E_2+E_4)(-E_9+E_5)(-E_6-E_9+E_4+E_7)(-E_6-E_8+E_4+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{12}^- - f_1^- f_3^- f_6^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_3-E_9+E_1+E_7)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_8)} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_6^+ - f_1^- f_6^- f_9^- f_{12}^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_9+E_5)(-E_6-E_9+E_4+E_7)(-E_{12}+E_2)(-E_4-E_{12}+E_6+E_8)} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_7^+ + f_1^- f_2^- f_5^- f_6^- f_7^- - f_2^- f_3^- f_5^- f_6^- f_7^+ - f_1^- f_2^- f_4^- f_7^- f_5^+}{(-E_3-E_5+E_1+E_7)(-E_4-E_7+E_5+E_6)(-E_2-E_5+E_7+E_8)(-E_5+E_9)(-E_2+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_8^- f_5^+ - f_1^- f_4^- f_7^- f_8^- f_5^+ + f_3^- f_4^- f_5^- f_7^- f_8^- - f_3^- f_5^- f_6^- f_8^- f_7^+}{(-E_1-E_7+E_3+E_5)(-E_5-E_6+E_4+E_7)(-E_7-E_8+E_2+E_5)(-E_5+E_9)(-E_7-E_8+E_5+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_7^- f_{12}^- - f_1^- f_4^- f_7^- f_{12}^- f_5^+ + f_3^- f_4^- f_5^- f_{12}^- f_7^+ - f_3^- f_5^- f_6^- f_{12}^- f_7^+}{(-E_1-E_7+E_3+E_5)(-E_5-E_6+E_4+E_7)(-E_5+E_9)(-E_{12}+E_2)(-E_5-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_2^+ + f_1^- f_2^- f_4^- f_5^- f_8^+ - f_2^- f_3^- f_4^- f_5^- f_8^- - f_1^- f_2^- f_5^- f_6^- f_8^+}{(-E_3-E_8+E_1+E_2)(-E_6-E_8+E_2+E_4)(-E_2-E_5+E_7+E_8)(-E_5+E_9)(-E_2+E_{12})} \\
\frac{+f_3^- f_6^- f_7^- f_8^- f_2^+ - f_1^- f_2^- f_6^- f_7^- f_8^- + f_1^- f_2^- f_4^- f_7^- f_8^+ - f_3^- f_4^- f_7^- f_8^- f_2^+}{(-E_3-E_8+E_1+E_2)(-E_6-E_8+E_2+E_4)(-E_7-E_8+E_2+E_5)(-E_7-E_8+E_2+E_9)(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_9^- f_8^+ + f_2^- f_3^- f_4^- f_8^- f_9^- - f_3^- f_6^- f_8^- f_9^- f_2^+ - f_1^- f_2^- f_4^- f_9^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_6-E_8+E_2+E_4)(-E_9+E_5)(-E_2-E_9+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_9^- - f_2^- f_3^- f_6^- f_9^- f_7^+ - f_1^- f_2^- f_4^- f_7^- f_9^+ + f_2^- f_3^- f_4^- f_9^- f_7^+}{(-E_9+E_5)(-E_1-E_7+E_3+E_9)(-E_6-E_9+E_4+E_7)(-E_2-E_9+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_1^- f_4^- f_7^- f_8^- f_9^+ - f_3^- f_4^- f_7^- f_8^- f_9^- + f_3^- f_6^- f_8^- f_9^- f_7^+ - f_1^- f_6^- f_7^- f_8^- f_9^+}{(-E_9+E_5)(-E_1-E_7+E_3+E_9)(-E_4-E_7+E_6+E_9)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_6^- f_9^- f_{12}^- f_7^+ + f_1^- f_4^- f_7^- f_{12}^- f_9^+ - f_3^- f_4^- f_9^- f_{12}^- f_7^+ - f_1^- f_6^- f_7^- f_9^- f_{12}^-}{(-E_9+E_5)(-E_3-E_9+E_1+E_7)(-E_6-E_9+E_4+E_7)(-E_{12}+E_2)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^- f_4^- f_5^- f_{12}^- f_8^+ - f_3^- f_4^- f_5^- f_8^- f_{12}^- - f_1^- f_5^- f_6^- f_{12}^- f_8^+ + f_3^- f_5^- f_6^- f_8^- f_{12}^+}{(-E_5+E_9)(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_8)(-E_4-E_{12}+E_6+E_8)(-E_5-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{12}^- - f_1^- f_4^- f_9^- f_{12}^- f_8^+ - f_3^- f_6^- f_8^- f_9^- f_{12}^+ + f_1^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_9+E_5)(-E_{12}+E_2)(-E_3-E_8+E_1+E_{12})(-E_4-E_{12}+E_6+E_8)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^- f_4^- f_7^- f_{12}^- f_8^+ + f_3^- f_6^- f_7^- f_8^- f_{12}^+ - f_1^- f_6^- f_7^- f_8^- f_{12}^- - f_3^- f_4^- f_7^- f_8^- f_{12}^+}{(-E_{12}+E_2)(-E_1-E_{12}+E_3+E_8)(-E_4-E_{12}+E_6+E_8)(-E_7-E_8+E_5+E_{12})(-E_7-E_8+E_9+E_{12})}
\end{pmatrix}$$

$$-\{1,2|V|3,12\}\{3,4|V|1,6\}\{5,6|V|5,8\}\{7,8|V|9,2\}\{9,10|V|11,4\}\{11,12|V|7,10\}f_5^-\left(\begin{array}{r}
\frac{+f_1^-f_2^-f_3^-f_4^-f_7^-f_{10}^--f_1^-f_2^-f_3^-f_4^-f_7^-f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_2+E_9)(-E_3-E_7-E_{10}+E_1+E_2+E_{11})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_4^-f_9^-f_{11}^--f_1^-f_2^-f_3^-f_4^-f_9^-f_{10}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_1-E_2-E_9+E_3+E_4+E_7)(-E_4-E_{11}+E_9+E_{10})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_7^-f_{11}^-f_9^+-f_1^-f_3^-f_4^-f_7^-f_{10}^-f_9^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_4-E_7+E_1+E_2+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_7+E_9+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_4^-f_{11}^-f_{10}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_1-E_2-E_{11}+E_3+E_7+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_7^-f_{10}^-f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_7-E_{10}+E_1+E_2+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_9^-f_{11}^-f_{12}^--f_1^-f_3^-f_4^-f_9^-f_{10}^-f_{12}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_9-E_{12}+E_4+E_7)}\\
\frac{+f_1^-f_3^-f_4^-f_{11}^-f_{12}^-f_{10}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_1^-f_3^-f_4^-f_7^-f_{10}^-f_{12}^--f_1^-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4+E_1+E_8)(-E_3-E_{12}+E_1+E_2)(-E_4-E_7+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_6^-f_7^-f_{10}^--f_1^-f_2^-f_3^-f_6^-f_7^-f_{11}^-}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_7+E_2+E_9)(-E_3-E_7-E_{10}+E_1+E_2+E_{11})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_2^-f_6^-f_7^-f_{10}^-f_4^+-f_2^-f_3^-f_4^-f_7^-f_{10}^-f_6^++f_2^-f_3^-f_4^-f_7^-f_{11}^-f_6^+-f_1^-f_2^-f_6^-f_7^-f_{11}^-f_4^+}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_7+E_2+E_9)(-E_6-E_7-E_{10}+E_2+E_4+E_{11})(-E_2-E_4+E_6+E_{12})}\\
\frac{+f_1^-f_2^-f_6^-f_9^-f_{11}^-f_4^+-f_2^-f_3^-f_4^-f_9^-f_{11}^-f_6^+-f_1^-f_2^-f_6^-f_9^-f_{10}^-f_4^++f_2^-f_3^-f_4^-f_9^-f_{10}^-f_6^+}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_2-E_9+E_6+E_7)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_6+E_{12})}\\
\frac{+f_1^-f_6^-f_7^-f_{11}^-f_4^+f_9^++f_3^-f_4^-f_7^-f_{10}^-f_6^+f_9^+-f_1^-f_6^-f_7^-f_{10}^-f_4^+f_9^+-f_3^-f_4^-f_7^-f_{11}^-f_6^+f_9^+}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_7+E_2+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_7+E_9+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_6^-f_9^-f_{11}^--f_1^-f_2^-f_3^-f_6^-f_9^-f_{10}^-}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_2-E_9+E_6+E_7)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_3^-f_6^-f_7^-f_{10}^-f_9^+-f_1^-f_3^-f_6^-f_7^-f_{11}^-f_9^+}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_7+E_2+E_9)(-E_3-E_9-E_{10}+E_1+E_6+E_{11})(-E_1-E_6-E_7+E_3+E_9+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_6^-f_{11}^-f_{10}^+}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_1-E_2-E_{11}+E_3+E_7+E_{10})(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_3^-f_6^-f_7^-f_{10}^-f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_3-E_7-E_{10}+E_1+E_2+E_{11})(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_6^-f_{11}^-f_4^+f_{10}^+-f_2^-f_3^-f_4^-f_{11}^-f_6^+f_{10}^+}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_2-E_4-E_{11}+E_6+E_7+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_6+E_{12})}\\
\frac{+f_1^-f_6^-f_7^-f_{10}^-f_4^+f_{11}^+-f_3^-f_4^-f_7^-f_{10}^-f_6^+f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_7-E_{10}+E_2+E_4+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^-f_6^-f_9^-f_{11}^-f_{12}^-f_4^+-f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_6^+-f_1^-f_6^-f_9^-f_{10}^-f_{12}^-f_4^++f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_6^+}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_6-E_{12}+E_2+E_4)(-E_9-E_{12}+E_4+E_7)}\\
\frac{+f_3^-f_4^-f_{11}^-f_{12}^-f_6^+f_{10}^+-f_1^-f_6^-f_{11}^-f_{12}^-f_4^+f_{10}^+}{(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_6-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_1^-f_3^-f_6^-f_9^-f_{11}^-f_{12}^--f_1^-f_3^-f_6^-f_9^-f_{10}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_3-E_9-E_{12}+E_1+E_6+E_7)}\\
\frac{+f_1^-f_3^-f_6^-f_{11}^-f_{12}^-f_{10}^+}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_1^-f_3^-f_6^-f_7^-f_{11}^-f_{12}^--f_1^-f_3^-f_6^-f_7^-f_{10}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_6+E_8)(-E_3-E_{12}+E_1+E_2)(-E_1-E_6-E_7+E_3+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_6^+-f_3^-f_4^-f_7^-f_{10}^-f_{12}^-f_6^++f_1^-f_6^-f_7^-f_{10}^-f_{12}^-f_4^+-f_1^-f_6^-f_7^-f_{11}^-f_{12}^-f_4^+}{(-E_3-E_4+E_1+E_6)(-E_6+E_8)(-E_6-E_{12}+E_2+E_4)(-E_4-E_7+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_8^-f_{10}^--f_1^-f_2^-f_3^-f_7^-f_8^-f_{11}^-}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_7-E_{10}+E_1+E_2+E_{11})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{10}^-f_8^+-f_2^-f_3^-f_4^-f_7^-f_{11}^-f_8^++f_1^-f_2^-f_7^-f_8^-f_{11}^-f_4^+-f_1^-f_2^-f_7^-f_8^-f_{10}^-f_4^+}{(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_2-E_4+E_8+E_{12})}\\
\frac{+f_1^-f_2^-f_8^-f_9^-f_{10}^-f_4^+-f_1^-f_2^-f_8^-f_9^-f_{11}^-f_4^+-f_2^-f_3^-f_4^-f_9^-f_{10}^-f_8^++f_2^-f_3^-f_4^-f_9^-f_{11}^-f_8^+}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_2-E_4+E_8+E_{12})}\\
\frac{+f_1^-f_7^-f_8^-f_{10}^-f_4^+f_9^+-f_3^-f_4^-f_7^-f_{10}^-f_8^+f_9^+-f_1^-f_7^-f_8^-f_{11}^-f_4^+f_9^++f_3^-f_4^-f_7^-f_{11}^-f_8^+f_9^+}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_2+E_9)(-E_9-E_{10}+E_4+E_{11})(-E_4-E_7+E_9+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_8^-f_9^-f_{11}^--f_1^-f_2^-f_3^-f_8^-f_9^-f_{10}^-}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_8-E_{11}+E_3+E_9+E_{10})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_3^-f_7^-f_8^-f_{10}^-f_9^+-f_1^-f_3^-f_7^-f_8^-f_{11}^-f_9^+}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_9-E_{10}+E_1+E_8+E_{11})(-E_1-E_7-E_8+E_3+E_9+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_8^-f_{11}^-f_{10}^+}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_1-E_2-E_{11}+E_3+E_7+E_{10})(-E_1-E_8-E_{11}+E_3+E_9+E_{10})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_3^-f_7^-f_8^-f_{10}^-f_{11}^+}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_3-E_7-E_{10}+E_1+E_2+E_{11})(-E_1-E_8-E_{11}+E_3+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_{11}^-f_8^+f_{10}^+-f_1^-f_2^-f_8^-f_{11}^-f_4^+f_{10}^+}{(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_2-E_4-E_{11}+E_7+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{10}^-f_8^+f_{11}^+-f_1^-f_7^-f_8^-f_{10}^-f_4^+f_{11}^+}{(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_8^++f_1^-f_8^-f_9^-f_{11}^-f_{12}^-f_4^+-f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_8^+-f_1^-f_8^-f_9^-f_{10}^-f_{12}^-f_4^+}{(-E_3-E_4+E_1+E_8)(-E_8+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_8-E_{12}+E_2+E_4)(-E_9-E_{12}+E_4+E_7)}\\
\frac{+f_1^-f_8^-f_{11}^-f_{12}^-f_4^+f_{10}^+-f_3^-f_4^-f_{11}^-f_{12}^-f_8^+f_{10}^+}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_8-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_1^-f_3^-f_8^-f_9^-f_{10}^-f_{12}^--f_1^-f_3^-f_8^-f_9^-f_{11}^-f_{12}^-}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_3-E_9-E_{10}+E_1+E_8+E_{11})(-E_3-E_{12}+E_1+E_2)(-E_3-E_9-E_{12}+E_1+E_7+E_8)}\\
\frac{+f_1^-f_3^-f_8^-f_{11}^-f_{12}^-f_{10}^+}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_1-E_8-E_{11}+E_3+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_1^-f_3^-f_7^-f_8^-f_{10}^-f_{12}^--f_1^-f_3^-f_7^-f_8^-f_{11}^-f_{12}^-}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_3-E_{12}+E_1+E_2)(-E_1-E_7-E_8+E_3+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^+-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_8^++f_3^-f_4^-f_7^-f_{10}^-f_{12}^-f_8^+-f_1^-f_7^-f_8^-f_{10}^-f_{12}^-f_4^+}{(-E_1-E_8+E_3+E_4)(-E_8+E_6)(-E_8-E_{12}+E_2+E_4)(-E_4-E_7+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_3^-f_6^-f_7^-f_{10}^-f_2^+f_{11}^+-f_1^-f_2^-f_6^-f_{11}^-f_7^+f_{10}^+}{(-E_6+E_8)(-E_6-E_7+E_2+E_9)(-E_3-E_7-E_{10}+E_1+E_2+E_{11})(-E_6-E_7-E_{10}+E_2+E_4+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^-f_7^-f_9^-f_{10}^-f_6^+f_{11}^+-f_1^-f_6^-f_7^-f_{11}^-f_9^+f_{10}^+}{(-E_6+E_8)(-E_6-E_7+E_2+E_9)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_1+E_6+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_6^-f_{11}^-f_9^+f_{10}^+-f_2^-f_3^-f_9^-f_{10}^-f_6^+f_{11}^+}{(-E_6+E_8)(-E_2-E_9+E_6+E_7)(-E_9-E_{10}+E_4+E_{11})(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_2-E_9-E_{10}+E_6+E_{11}+E_{12})}\\
\frac{+f_3^-f_6^-f_7^-f_{11}^-f_{12}^-f_2^++f_1^-f_2^-f_6^-f_7^-f_{10}^-f_{12}^+-f_1^-f_2^-f_6^-f_7^-f_{11}^-f_{12}^+-f_3^-f_6^-f_7^-f_{10}^-f_{12}^-f_2^+}{(-E_6+E_8)(-E_6-E_7+E_2+E_9)(-E_3-E_{12}+E_1+E_2)(-E_6-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f_3^-f_6^-f_9^-f_{11}^-f_{12}^-f_2^+-f_1^-f_2^-f_6^-f_9^-f_{11}^-f_{12}^+-f_3^-f_6^-f_9^-f_{10}^-f_{12}^-f_2^++f_1^-f_2^-f_6^-f_9^-f_{10}^-f_{12}^+}{(-E_6+E_8)(-E_2-E_9+E_6+E_7)(-E_3-E_{12}+E_1+E_2)(-E_6-E_{12}+E_2+E_4)(-E_6-E_{11}-E_{12}+E_2+E_9+E_{10})}\\
\frac{+f_3^-f_9^-f_{10}^-f_{12}^-f_6^+f_7^+-f_1^-f_6^-f_7^-f_{10}^-f_9^+f_{12}^++f_1^-f_6^-f_7^-f_{11}^-f_9^+f_{12}^+-f_3^-f_9^-f_{11}^-f_{12}^-f_6^+f_7^+}{(-E_6+E_8)(-E_6-E_7+E_2+E_9)(-E_9-E_{12}+E_4+E_7)(-E_3-E_9-E_{12}+E_1+E_6+E_7)(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^-f_7^-f_8^-f_{10}^-f_2^+f_{11}^+-f_1^-f_2^-f_8^-f_{11}^-f_7^+f_{10}^+}{(-E_8+E_6)(-E_7-E_8+E_2+E_9)(-E_3-E_7-E_{10}+E_1+E_2+E_{11})(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^-f_7^-f_9^-f_{10}^-f_8^+f_{11}^+-f_1^-f_7^-f_8^-f_{11}^-f_9^+f_{10}^+}{(-E_8+E_6)(-E_7-E_8+E_2+E_9)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_1+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|3,12\}\{3,4|V|1,6\}\{5,6|V|7,2\}\{7,8|V|5,10\}\{9,10|V|11,4\}\{11,12|V|9,8\}\Bigg(\frac{+f_1^-f_2^-f_3^-f_4^-f_7^-f_8^-f_9^- -f_1^-f_3^-f_4^-f_5^-f_8^-f_9^-f_2^+ -f_1^-f_2^-f_3^-f_4^-f_7^-f_8^-f_{11}^- +f_1^-f_2^-f_3^-f_4^-f_5^-f_8^-f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_2-E_7+E_3+E_4+E_5)(-E_3-E_4-E_8+E_1+E_2+E_{10})(-E_3-E_8-E_9+E_1+E_2+E_{11})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_1^-f_2^-f_3^-f_4^-f_7^-f_{10}^-f_{11}^- -f_1^-f_2^-f_3^-f_4^-f_5^-f_{10}^-f_{11}^- -f_1^-f_2^-f_3^-f_7^-f_9^-f_{10}^-f_4^+ +f_1^-f_2^-f_3^-f_4^-f_5^-f_9^-f_{10}^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_2-E_7+E_3+E_4+E_5)(-E_1-E_2-E_{10}+E_3+E_4+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_1^-f_3^-f_4^-f_5^-f_7^-f_8^-f_9^- -f_1^-f_3^-f_4^-f_5^-f_8^-f_{11}^-f_7^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_2+E_7)(-E_7-E_8+E_5+E_{10})(-E_7-E_8-E_9+E_4+E_5+E_{11})(-E_4-E_5+E_7+E_{12})}$$

$$\frac{+f_1^-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_7^+ -f_1^-f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_7^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_2+E_7)(-E_5-E_{10}+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_4-E_5+E_7+E_{12})}$$

$$\frac{+f_1^-f_2^-f_3^-f_4^-f_5^-f_{11}^-f_9^+ -f_1^-f_2^-f_3^-f_4^-f_7^-f_{11}^-f_9^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_2+E_7)(-E_1-E_2-E_{11}+E_3+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_1^-f_3^-f_4^-f_5^-f_{11}^-f_7^+f_9^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_2+E_7)(-E_4-E_5-E_{11}+E_7+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_5+E_7+E_{12})}$$

$$\frac{+f_1^-f_3^-f_5^-f_6^-f_8^-f_9^-f_2^+ +f_1^-f_2^-f_3^-f_6^-f_7^-f_8^-f_{11}^- -f_1^-f_2^-f_3^-f_5^-f_6^-f_8^-f_{11}^- -f_1^-f_2^-f_3^-f_6^-f_7^-f_8^-f_9^-}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_6-E_8+E_2+E_{10})(-E_3-E_8-E_9+E_1+E_2+E_{11})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_3^-f_4^-f_5^-f_8^-f_9^-f_2^+f_6^+ +f_1^-f_2^-f_5^-f_6^-f_8^-f_{11}^-f_4^+ +f_1^-f_2^-f_6^-f_7^-f_8^-f_9^-f_4^+ +f_2^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_6^+ -f_2^-f_3^-f_4^-f_5^-f_8^-f_{11}^-f_6^+ -f_1^-f_2^-f_6^-f_7^-f_8^-f_{11}^-f_4^+ -f_2^-f_3^-f_4^-f_7^-f_8^-f_9^-f_6^+ -f_1^-f_5^-f_6^-f_8^-f_9^-f_2^+f_4^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_2+E_7)(-E_6-E_8+E_2+E_{10})(-E_6-E_8-E_9+E_2+E_4+E_{11})(-E_2-E_4+E_6+E_{12})}$$

$$\frac{+f_1^-f_2^-f_6^-f_7^-f_{10}^-f_{11}^-f_4^+ -f_1^-f_2^-f_5^-f_6^-f_{10}^-f_{11}^-f_4^+ -f_2^-f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_6^+ +f_2^-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_6^+ +f_1^-f_2^-f_5^-f_6^-f_9^-f_{10}^-f_4^+ +f_2^-f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_6^+ -f_1^-f_2^-f_6^-f_7^-f_9^-f_{10}^-f_4^+ -f_2^-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_6^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_{10}+E_6+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_6+E_{12})}$$

$$\frac{+f_1^-f_2^-f_3^-f_6^-f_7^-f_{10}^-f_{11}^- -f_1^-f_2^-f_3^-f_5^-f_6^-f_{10}^-f_{11}^- -f_1^-f_2^-f_3^-f_7^-f_9^-f_{10}^-f_6^+ +f_1^-f_2^-f_3^-f_5^-f_6^-f_9^-f_{10}^-}{(-E_1-E_6+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_{10}+E_6+E_8)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_1^-f_5^-f_6^-f_7^-f_8^-f_9^-f_4^+ -f_3^-f_4^-f_5^-f_7^-f_8^-f_9^-f_6^+ -f_1^-f_5^-f_6^-f_8^-f_{11}^-f_4^+f_7^+ +f_3^-f_4^-f_5^-f_8^-f_{11}^-f_6^+f_7^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_7-E_8+E_5+E_{10})(-E_7-E_8-E_9+E_4+E_5+E_{11})(-E_4-E_5+E_7+E_{12})}$$

$$\frac{+f_1^-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_7^+ -f_1^-f_3^-f_5^-f_6^-f_7^-f_8^-f_9^-}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_7-E_8+E_5+E_{10})(-E_1-E_5-E_6-E_{11}+E_3+E_7+E_8+E_9)(-E_1-E_5-E_6+E_3+E_7+E_{12})}$$

$$\frac{+f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_6^+f_7^+ -f_3^-f_4^-f_5^-f_9^-f_{10}^-f_6^+f_7^+ -f_1^-f_5^-f_6^-f_{10}^-f_{11}^-f_4^+f_7^+ +f_1^-f_5^-f_6^-f_9^-f_{10}^-f_4^+f_7^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_2+E_7)(-E_5-E_{10}+E_7+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_5+E_7+E_{12})}$$

$$\frac{+f_1^-f_3^-f_5^-f_6^-f_{10}^-f_{11}^-f_7^+ -f_1^-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_7^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_{10}+E_7+E_8)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_1-E_5-E_6+E_3+E_7+E_{12})}$$

$$\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_9^+ -f_1^-f_2^-f_3^-f_6^-f_7^-f_{11}^-f_9^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2-E_{11}+E_3+E_8+E_9)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_2^-f_3^-f_4^-f_5^-f_{11}^-f_6^+f_9^+ -f_1^-f_2^-f_5^-f_6^-f_{11}^-f_4^+f_9^+ -f_2^-f_3^-f_4^-f_7^-f_{11}^-f_6^+f_9^+ +f_1^-f_2^-f_6^-f_7^-f_{11}^-f_4^+f_9^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_2+E_7)(-E_2-E_4-E_{11}+E_6+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_6+E_{12})}$$

$$\frac{+f_1^-f_5^-f_6^-f_{11}^-f_4^+f_7^+f_9^+ -f_3^-f_4^-f_5^-f_{11}^-f_6^+f_7^+f_9^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_4-E_5-E_{11}+E_7+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_5+E_7+E_{12})}$$

$$\frac{+f_1^-f_3^-f_5^-f_6^-f_{11}^-f_7^+f_9^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6-E_{11}+E_3+E_7+E_8+E_9)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_1-E_5-E_6+E_3+E_7+E_{12})}$$

$$\frac{+f_1^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{10}^+ -f_1^-f_3^-f_4^-f_5^-f_8^-f_{11}^-f_{10}^+ +f_1^-f_3^-f_4^-f_5^-f_8^-f_9^-f_{10}^- -f_1^-f_3^-f_4^-f_7^-f_8^-f_9^-f_{10}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_8+E_1+E_2+E_{10})(-E_7-E_8+E_5+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_4-E_8+E_{10}+E_{12})}$$

$$\frac{+f_3^-f_4^-f_5^-f_8^-f_{11}^-f_6^+f_{10}^+ -f_3^-f_4^-f_7^-f_8^-f_{11}^-f_6^+f_{10}^+ +f_1^-f_5^-f_6^-f_8^-f_9^-f_{10}^-f_4^+ -f_3^-f_4^-f_5^-f_8^-f_9^-f_{10}^-f_6^+ -f_1^-f_6^-f_7^-f_8^-f_9^-f_4^+f_{10}^+ -f_1^-f_5^-f_6^-f_8^-f_{11}^-f_4^+f_{10}^+ +f_1^-f_6^-f_7^-f_8^-f_{11}^-f_4^+f_{10}^+ +f_3^-f_4^-f_7^-f_8^-f_9^-f_6^+f_{10}^+}{(-E_3-E_4+E_1+E_6)(-E_6-E_8+E_2+E_{10})(-E_5-E_{10}+E_7+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_8+E_{10}+E_{12})}$$

$$\frac{+f_1^-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_{10}^+ -f_1^-f_3^-f_6^-f_7^-f_8^-f_{11}^-f_{10}^+ +f_1^-f_3^-f_6^-f_7^-f_8^-f_9^-f_{10}^- -f_1^-f_3^-f_5^-f_6^-f_8^-f_9^-f_{10}^-}{(-E_1-E_6+E_3+E_4)(-E_6-E_8+E_2+E_{10})(-E_5-E_{10}+E_7+E_8)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_1-E_6-E_8+E_3+E_{10}+E_{12})}$$

$$\frac{+f_1^-f_3^-f_4^-f_5^-f_8^-f_9^-f_{11}^- -f_1^-f_3^-f_4^-f_7^-f_8^-f_9^-f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_8-E_9+E_1+E_2+E_{11})(-E_4-E_5-E_{11}+E_7+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})}$$

$$\frac{+f_1^-f_3^-f_5^-f_6^-f_8^-f_9^-f_{11}^- -f_1^-f_3^-f_6^-f_7^-f_8^-f_9^-f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_8-E_9+E_1+E_2+E_{11})(-E_1-E_5-E_6-E_{11}+E_3+E_7+E_8+E_9)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})}$$

$$\frac{+f_3^-f_4^-f_7^-f_8^-f_9^-f_6^+f_{11}^+ -f_1^-f_6^-f_7^-f_8^-f_9^-f_4^+f_{11}^+ -f_3^-f_4^-f_5^-f_8^-f_9^-f_{11}^-f_6^+ +f_1^-f_5^-f_6^-f_8^-f_9^-f_{11}^-f_4^+}{(-E_3-E_4+E_1+E_6)(-E_6-E_8-E_9+E_2+E_4+E_{11})(-E_7-E_8-E_9+E_4+E_5+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})}$$

$$\frac{+f_1^-f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_{12}^- -f_1^-f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_{12}^- -f_1^-f_3^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+ +f_1^-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{12}^-}{(-E_3-E_4+E_1+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_7-E_{12}+E_4+E_5)(-E_{10}-E_{12}+E_4+E_8)}$$

$$\frac{+f_1^-f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_9^+ -f_1^-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_9^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_4-E_5+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)}$$

$$\frac{+f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^-f_6^+ +f_1^-f_6^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_4^+ -f_1^-f_5^-f_6^-f_{10}^-f_{11}^-f_{12}^-f_4^+ +f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_{12}^-f_6^+ -f_1^-f_6^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+ -f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{12}^-f_6^+ +f_1^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^-f_4^+ -f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_6^+}{(-E_3-E_4+E_1+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_6-E_{12}+E_2+E_4)(-E_7-E_{12}+E_4+E_5)(-E_{10}-E_{12}+E_4+E_8)}$$

$$\frac{+f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_6^+f_9^+ -f_1^-f_6^-f_7^-f_{11}^-f_{12}^-f_4^+f_9^+ -f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_6^+f_9^+ +f_1^-f_5^-f_6^-f_{11}^-f_{12}^-f_4^+f_9^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_6-E_{12}+E_2+E_4)(-E_7-E_{12}+E_4+E_5)(-E_{11}-E_{12}+E_8+E_9)}$$

$$\frac{+f_1^-f_3^-f_5^-f_6^-f_{10}^-f_{11}^-f_{12}^- -f_1^-f_3^-f_6^-f_7^-f_{10}^-f_{11}^-f_{12}^- +f_1^-f_3^-f_7^-f_9^-f_{10}^-f_{12}^-f_6^+ -f_1^-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_1-E_5-E_6+E_3+E_7+E_{12})(-E_3-E_{10}-E_{12}+E_1+E_6+E_8)}$$

$$\frac{+f_1^-f_3^-f_5^-f_6^-f_{11}^-f_{12}^-f_9^+ -f_1^-f_3^-f_6^-f_7^-f_{11}^-f_{12}^-f_9^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_1-E_5-E_6+E_3+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)}$$

$$\frac{+f_1^-f_3^-f_4^-f_5^-f_8^-f_9^-f_{12}^+ -f_1^-f_3^-f_4^-f_7^-f_8^-f_9^-f_{12}^- -f_1^-f_3^-f_4^-f_5^-f_8^-f_{11}^-f_{12}^- +f_1^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_{12}+E_1+E_2)(-E_4-E_5+E_7+E_{12})(-E_4-E_8+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})}$$

$$\frac{+f_1^-f_3^-f_6^-f_7^-f_8^-f_9^-f_{12}^- -f_1^-f_3^-f_5^-f_6^-f_8^-f_9^-f_{12}^+ +f_1^-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_{12}^- -f_1^-f_3^-f_6^-f_7^-f_8^-f_{11}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_{12}+E_1+E_2)(-E_3-E_7-E_{12}+E_1+E_5+E_6)(-E_1-E_6-E_8+E_3+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})}$$

$$\frac{+f_1^-f_6^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^+ -f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-f_6^+ +f_3^-f_4^-f_5^-f_8^-f_{11}^-f_{12}^-f_6^+ -f_1^-f_5^-f_6^-f_8^-f_{11}^-f_{12}^-f_4^+ +f_3^-f_4^-f_7^-f_8^-f_9^-f_{12}^-f_6^+ -f_1^-f_6^-f_7^-f_8^-f_9^-f_{12}^-f_4^+ -f_3^-f_4^-f_5^-f_8^-f_9^-f_6^+f_{12}^+ +f_1^-f_5^-f_6^-f_8^-f_9^-f_4^+f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_6-E_{12}+E_2+E_4)(-E_7-E_{12}+E_4+E_5)(-E_4-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)}$$

$$\frac{+f_1^-f_2^-f_3^-f_7^-f_8^-f_{11}^-f_5^+ -f_1^-f_2^-f_3^-f_7^-f_8^-f_9^-f_5^+}{(-E_1-E_2-E_7+E_3+E_4+E_5)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_5+E_{10})(-E_1-E_2-E_{11}+E_3+E_8+E_9)(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_3^-f_4^-f_5^-f_8^-f_9^-f_2^+f_7^+ +f_1^-f_2^-f_7^-f_8^-f_{11}^-f_4^+f_5^+ -f_1^-f_2^-f_7^-f_8^-f_9^-f_4^+f_5^+ -f_3^-f_4^-f_5^-f_8^-f_{11}^-f_2^+f_7^+}{(-E_3-E_4-E_5+E_1+E_2+E_7)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_5+E_{10})(-E_7-E_8-E_9+E_4+E_5+E_{11})(-E_4-E_5+E_7+E_{12})}$$

$$\frac{+f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_2^+f_7^+ -f_1^-f_2^-f_7^-f_{10}^-f_{11}^-f_4^+f_5^+ +f_1^-f_2^-f_7^-f_9^-f_{10}^-f_4^+f_5^+ -f_3^-f_4^-f_5^-f_9^-f_{10}^-f_2^+f_7^+}{(-E_3-E_4-E_5+E_1+E_2+E_7)(-E_2-E_7+E_5+E_6)(-E_5-E_{10}+E_7+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_5+E_7+E_{12})}$$

$$\frac{+f_1^-f_2^-f_3^-f_5^-f_7^-f_9^-f_{10}^- -f_1^-f_2^-f_3^-f_7^-f_{10}^-f_{11}^-f_5^+}{(-E_1-E_2-E_7+E_3+E_4+E_5)(-E_2-E_7+E_5+E_6)(-E_5-E_{10}+E_7+E_8)(-E_3-E_5-E_9-E_{10}+E_1+E_2+E_7+E_{11})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_1^-f_2^-f_3^-f_7^-f_{11}^-f_5^+f_9^+}{(-E_1-E_2-E_7+E_3+E_4+E_5)(-E_2-E_7+E_5+E_6)(-E_1-E_2-E_{11}+E_3+E_8+E_9)(-E_1-E_2-E_7-E_{11}+E_3+E_5+E_9+E_{10})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_1^-f_2^-f_7^-f_{11}^-f_4^+f_5^+f_9^+ -f_3^-f_4^-f_5^-f_{11}^-f_2^+f_7^+f_9^+}{(-E_1-E_2-E_7+E_3+E_4+E_5)(-E_2-E_7+E_5+E_6)(-E_4-E_5-E_{11}+E_7+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_5+E_7+E_{12})}$$

$$\frac{+f_1^-f_2^-f_6^-f_7^-f_{11}^-f_8^+f_9^+ +f_3^-f_5^-f_6^-f_8^-f_9^-f_2^+f_{11}^+ -f_1^-f_2^-f_5^-f_6^-f_{11}^-f_8^+f_9^+ -f_3^-f_6^-f_7^-f_8^-f_9^-f_2^+f_{11}^+}{(-E_2-E_7+E_5+E_6)(-E_6-E_8+E_2+E_{10})(-E_1-E_2-E_{11}+E_3+E_8+E_9)(-E_6-E_8-E_9+E_2+E_4+E_{11})(-E_8-E_9+E_{11}+E_{12})}$$

$$\frac{+f_2^-f_3^-f_7^-f_9^-f_{10}^-f_6^+f_{11}^+ -f_1^-f_2^-f_6^-f_7^-f_{11}^-f_9^+f_{10}^+ -f_2^-f_3^-f_5^-f_9^-f_{10}^-f_6^+f_{11}^+ +f_1^-f_2^-f_5^-f_6^-f_{11}^-f_9^+f_{10}^+}{(-E_2-E_7+E_5+E_6)(-E_2-E_{10}+E_6+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_1+E_6+E_{11})(-E_2-E_9-E_{10}+E_6+E_{11}+E_{12})}$$

$$\frac{+f_3^-f_5^-f_6^-f_8^-f_9^-f_{12}^-f_2^+ -f_1^-f_2^-f_5^-f_6^-f_8^-f_9^-f_{12}^+ -f_1^-f_2^-f_6^-f_7^-f_8^-f_{11}^-f_{12}^+ +f_3^-f_6^-f_7^-f_8^-f_{11}^-f_{12}^-f_2^+ +f_1^-f_2^-f_5^-f_6^-f_8^-f_{11}^-f_{12}^+ -f_3^-f_5^-f_6^-f_8^-f_{11}^-f_{12}^-f_2^+ +f_1^-f_2^-f_6^-f_7^-f_8^-f_9^-f_{12}^+ -f_3^-f_6^-f_7^-f_8^-f_9^-f_{12}^-f_2^+}{(-E_5-E_6+E_2+E_7)(-E_6-E_8+E_2+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_6-E_{12}+E_2+E_4)(-E_8-E_9+E_{11}+E_{12})}$$

$$\frac{+f_1^-f_2^-f_6^-f_7^-f_{10}^-f_{11}^-f_{12}^+ +f_3^-f_5^-f_6^-f_{10}^-f_{11}^-f_{12}^-f_2^+ -f_1^-f_2^-f_5^-f_6^-f_{10}^-f_{11}^-f_{12}^+ -f_3^-f_6^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_2^+ +f_1^-f_2^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^+ -f_1^-f_2^-f_7^-f_9^-f_{10}^-f_6^+f_{12}^+ -f_3^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^-f_2^+ +f_3^-f_7^-f_9^-f_{10}^-f_{12}^-f_2^+f_6^+}{(-E_2-E_7+E_5+E_6)(-E_2-E_{10}+E_6+E_8)(-E_1-E_2+E_3+E_{12})(-E_6-E_{12}+E_2+E_4)(-E_6-E_{11}-E_{12}+E_2+E_9+E_{10})}$$

$$\frac{+f_3^-f_7^-f_8^-f_9^-f_2^+f_5^+f_{11}^+ -f_1^-f_2^-f_7^-f_{11}^-f_5^+f_8^+f_9^+}{(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_5+E_{10})(-E_3-E_8-E_9+E_1+E_2+E_{11})(-E_7-E_8-E_9+E_4+E_5+E_{11})(-E_8-E_9+E_{11}+E_{12})}$$

$$\frac{+f_1^-f_5^-f_6^-f_{11}^-f_7^+f_8^+f_9^+ -f_3^-f_7^-f_8^-f_9^-f_5^+f_6^+f_{11}^+}{(-E_5-E_6+E_2+E_7)(-E_7-E_8+E_5+E_{10})(-E_7-E_8-E_9+E_4+E_5+E_{11})(-E_1-E_5-E_6-E_{11}+E_3+E_7+E_8+E_9)(-E_8-E_9+E_{11}+E_{12})}$$

$$\frac{+f_3^-f_5^-f_9^-f_{10}^-f_6^+f_7^+f_{11}^+ -f_1^-f_5^-f_6^-f_{11}^-f_7^+f_9^+f_{10}^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_{10}+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_1+E_6+E_{11})(-E_5-E_9-E_{10}+E_7+E_{11}+E_{12})}$$

$$\frac{+f_3^-f_5^-f_9^-f_{10}^-f_2^+f_7^+f_{11}^+ -f_1^-f_2^-f_7^-f_{11}^-f_5^+f_9^+f_{10}^+}{(-E_2-E_7+E_5+E_6)(-E_5-E_{10}+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_5-E_9-E_{10}+E_1+E_2+E_7+E_{11})(-E_5-E_9-E_{10}+E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^-f_2^-f_7^-f_8^-f_9^-f_5^+f_{12}^+ -f_3^-f_7^-f_8^-f_9^-f_{12}^-f_2^+f_5^+ -f_1^-f_2^-f_7^-f_8^-f_{11}^-f_5^+f_{12}^+ +f_3^-f_7^-f_8^-f_{11}^-f_{12}^-f_2^+f_5^+}{(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_5+E_{10})(-E_1-E_2+E_3+E_{12})(-E_7-E_{12}+E_4+E_5)(-E_8-E_9+E_{11}+E_{12})}$$

$$-\frac{1}{2}\{1,2|V|3,8\}\{3,4|V|1,6\}\{5,6|V|7,4\}\{7,8|V|9,12\}\{9,10|V|11,2\}\{11,12|V|5,10\}\left(\begin{array}{r}
\frac{+f_1^-f_2^-f_3^-f_4^-f_5^-f_{11}^-f_9^+-f_1^-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_9^+-f_1^-f_2^-f_3^-f_4^-f_5^-f_9^-f_{10}^-+f_1^-f_2^-f_3^-f_5^-f_6^-f_9^-f_{10}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_5+E_1+E_7)(-E_1-E_2+E_3+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_5+E_9+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_4^-f_7^-f_9^-f_{10}^--f_1^-f_2^-f_3^-f_6^-f_7^-f_9^-f_{10}^-+f_1^-f_2^-f_3^-f_6^-f_7^-f_{11}^-f_9^+-f_1^-f_2^-f_3^-f_4^-f_7^-f_{11}^-f_9^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_7+E_3+E_5)(-E_1-E_2+E_3+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2-E_7+E_3+E_9+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_{10}^-f_{11}^--f_1^-f_2^-f_3^-f_4^-f_5^-f_{10}^-f_{11}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_5+E_1+E_7)(-E_1-E_2+E_3+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_4^-f_7^-f_{10}^-f_{11}^--f_1^-f_2^-f_3^-f_6^-f_7^-f_{10}^-f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_7+E_3+E_5)(-E_1-E_2+E_3+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_7-E_{10}+E_3+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_5^-f_6^-f_8^-f_9^-f_{10}^--f_1^-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_9^++f_1^-f_3^-f_4^-f_5^-f_8^-f_{11}^-f_9^+-f_1^-f_3^-f_4^-f_5^-f_8^-f_9^-f_{10}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_5+E_1+E_7)(-E_3-E_8+E_1+E_2)(-E_1-E_9-E_{10}+E_3+E_8+E_{11})(-E_3-E_5-E_8+E_1+E_9+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_8^-f_9^-f_{10}^--f_1^-f_3^-f_6^-f_7^-f_8^-f_9^-f_{10}^--f_1^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_9^++f_1^-f_3^-f_6^-f_7^-f_8^-f_{11}^-f_9^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_7+E_3+E_5)(-E_3-E_8+E_1+E_2)(-E_1-E_9-E_{10}+E_3+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_5^-f_8^-f_{10}^-f_{11}^--f_1^-f_3^-f_5^-f_6^-f_8^-f_{10}^-f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_5+E_1+E_7)(-E_3-E_8+E_1+E_2)(-E_3-E_8-E_{11}+E_1+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{11}^--f_1^-f_3^-f_6^-f_7^-f_8^-f_{10}^-f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_7+E_3+E_5)(-E_3-E_8+E_1+E_2)(-E_3-E_8-E_{11}+E_1+E_9+E_{10})(-E_1-E_7-E_{10}+E_3+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_{10}^-f_{12}^+-f_1^-f_2^-f_3^-f_4^-f_5^-f_{10}^-f_{12}^+-f_1^-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_{12}^-+f_1^-f_2^-f_3^-f_4^-f_5^-f_{11}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_5+E_1+E_7)(-E_1-E_2+E_3+E_8)(-E_2-E_5+E_9+E_{12})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_3^-f_6^-f_7^-f_{10}^-f_{12}^+-f_1^-f_2^-f_3^-f_4^-f_7^-f_{10}^-f_{12}^+-f_1^-f_2^-f_3^-f_6^-f_7^-f_{11}^-f_{12}^-+f_1^-f_2^-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_1-E_7+E_3+E_5)(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_9+E_{12})(-E_1-E_7-E_{10}+E_3+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_5^-f_6^-f_8^-f_{10}^-f_{12}^+-f_1^-f_3^-f_4^-f_5^-f_8^-f_{10}^-f_{12}^+-f_1^-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_{12}^-+f_1^-f_3^-f_4^-f_5^-f_8^-f_{11}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_5+E_1+E_7)(-E_3-E_8+E_1+E_2)(-E_3-E_5-E_8+E_1+E_9+E_{12})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_6^-f_7^-f_8^-f_{10}^-f_{12}^+-f_1^-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{12}^+-f_1^-f_3^-f_6^-f_7^-f_8^-f_{11}^-f_{12}^-+f_1^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_1-E_7+E_3+E_5)(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_9+E_{12})(-E_1-E_7-E_{10}+E_3+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_{11}^+-f_1^-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_5+E_1+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_8+E_{11})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{11}^+-f_1^-f_3^-f_6^-f_7^-f_9^-f_{10}^-f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_7+E_3+E_5)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_8+E_{11})(-E_1-E_7-E_{10}+E_3+E_{11}+E_{12})} \\
\frac{+f_1^-f_3^-f_6^-f_9^-f_{11}^-f_{12}^-f_5^+-f_1^-f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_5^+-f_1^-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^-+f_1^-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_5+E_1+E_7)(-E_9-E_{12}+E_2+E_5)(-E_1-E_9-E_{12}+E_3+E_5+E_8)(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_1^-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^--f_1^-f_3^-f_6^-f_7^-f_9^-f_{10}^-f_{12}^-+f_1^-f_3^-f_6^-f_9^-f_{11}^-f_{12}^-f_7^+-f_1^-f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_7^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_7+E_3+E_5)(-E_3-E_9-E_{12}+E_1+E_2+E_7)(-E_9-E_{12}+E_7+E_8)(-E_1-E_7-E_{10}+E_3+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_5^-f_6^-f_{11}^-f_4^+f_9^+-f_1^-f_2^-f_5^-f_6^-f_9^-f_{10}^-f_4^+-f_2^-f_3^-f_4^-f_5^-f_{11}^-f_6^+f_9^++f_2^-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_6^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_4+E_7)(-E_2-E_4+E_6+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_5+E_9+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{11}^-f_6^+f_9^+-f_1^-f_2^-f_6^-f_7^-f_{11}^-f_4^+f_9^++f_1^-f_2^-f_6^-f_7^-f_9^-f_{10}^-f_4^+-f_2^-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_6^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_7+E_5+E_6)(-E_2-E_4+E_6+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_4-E_7+E_6+E_9+E_{12})} \\
\frac{+f_2^-f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_6^+-f_1^-f_2^-f_5^-f_6^-f_{10}^-f_{11}^-f_4^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_4+E_7)(-E_2-E_4+E_6+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_6^-f_7^-f_{10}^-f_{11}^-f_4^+-f_2^-f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_6^+}{(-E_1-E_6+E_3+E_4)(-E_4-E_7+E_5+E_6)(-E_2-E_4+E_6+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_4-E_7-E_{10}+E_6+E_{11}+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_8^-f_{11}^-f_6^+f_9^+-f_1^-f_5^-f_6^-f_8^-f_{11}^-f_4^+f_9^++f_1^-f_5^-f_6^-f_8^-f_9^-f_{10}^-f_4^+-f_3^-f_4^-f_5^-f_8^-f_9^-f_{10}^-f_6^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_4+E_7)(-E_6-E_8+E_2+E_4)(-E_6-E_8-E_{11}+E_4+E_9+E_{10})(-E_5-E_6-E_8+E_4+E_9+E_{12})} \\
\frac{+f_1^-f_6^-f_7^-f_8^-f_{11}^-f_4^+f_9^+-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_6^+f_9^+-f_1^-f_6^-f_7^-f_8^-f_9^-f_{10}^-f_4^++f_3^-f_4^-f_7^-f_8^-f_9^-f_{10}^-f_6^+}{(-E_1-E_6+E_3+E_4)(-E_4-E_7+E_5+E_6)(-E_6-E_8+E_2+E_4)(-E_6-E_8-E_{11}+E_4+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^-f_5^-f_6^-f_8^-f_{10}^-f_{11}^-f_4^+-f_3^-f_4^-f_5^-f_8^-f_{10}^-f_{11}^-f_6^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_4+E_7)(-E_6-E_8+E_2+E_4)(-E_6-E_8-E_{11}+E_4+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_6^-f_7^-f_8^-f_{10}^-f_{11}^-f_4^+-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{11}^-f_6^+}{(-E_1-E_6+E_3+E_4)(-E_4-E_7+E_5+E_6)(-E_6-E_8+E_2+E_4)(-E_6-E_8-E_{11}+E_4+E_9+E_{10})(-E_4-E_7-E_{10}+E_6+E_{11}+E_{12})} \\
\frac{+f_1^-f_2^-f_5^-f_6^-f_{11}^-f_{12}^-f_4^+-f_2^-f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_6^++f_2^-f_3^-f_4^-f_5^-f_{10}^-f_6^+f_{12}^+-f_1^-f_2^-f_5^-f_6^-f_{10}^-f_4^+f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_4+E_7)(-E_2-E_4+E_6+E_8)(-E_2-E_5+E_9+E_{12})(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_6^+-f_1^-f_2^-f_6^-f_7^-f_{11}^-f_{12}^-f_4^+-f_2^-f_3^-f_4^-f_7^-f_{10}^-f_6^+f_{12}^++f_1^-f_2^-f_6^-f_7^-f_{10}^-f_4^+f_{12}^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_7+E_5+E_6)(-E_2-E_4+E_6+E_8)(-E_2-E_4-E_7+E_6+E_9+E_{12})(-E_6-E_{11}-E_{12}+E_4+E_7+E_{10})} \\
\frac{+f_1^-f_5^-f_6^-f_8^-f_{11}^-f_{12}^-f_4^+-f_3^-f_4^-f_5^-f_8^-f_{11}^-f_{12}^-f_6^+-f_1^-f_5^-f_6^-f_8^-f_{10}^-f_4^+f_{12}^++f_3^-f_4^-f_5^-f_8^-f_{10}^-f_6^+f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_4+E_7)(-E_6-E_8+E_2+E_4)(-E_5-E_6-E_8+E_4+E_9+E_{12})(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-f_6^+-f_1^-f_6^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^++f_1^-f_6^-f_7^-f_8^-f_{10}^-f_4^+f_{12}^+-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_6^+f_{12}^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_7+E_5+E_6)(-E_6-E_8+E_2+E_4)(-E_7-E_8+E_9+E_{12})(-E_6-E_{11}-E_{12}+E_4+E_7+E_{10})} \\
\frac{+f_3^-f_4^-f_5^-f_9^-f_{10}^-f_6^+f_{11}^+-f_1^-f_5^-f_6^-f_9^-f_{10}^-f_4^+f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_4+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_4-E_9-E_{10}+E_6+E_8+E_{11})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_6^-f_7^-f_9^-f_{10}^-f_4^+f_{11}^+-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_6^+f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_4-E_7+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_4-E_9-E_{10}+E_6+E_8+E_{11})(-E_4-E_7-E_{10}+E_6+E_{11}+E_{12})} \\
\frac{+f_1^-f_6^-f_9^-f_{11}^-f_{12}^-f_4^+f_5^+-f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_5^+f_6^+-f_1^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^-f_4^++f_3^-f_4^-f_5^-f_9^-f_{10}^-f_{12}^-f_6^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_4+E_7)(-E_9-E_{12}+E_2+E_5)(-E_4-E_9-E_{12}+E_5+E_6+E_8)(-E_{11}-E_{12}+E_5+E_{10})} \\
\frac{+f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_6^+f_7^+-f_1^-f_6^-f_9^-f_{11}^-f_{12}^-f_4^+f_7^+-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^-f_6^++f_1^-f_6^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_7+E_5+E_6)(-E_6-E_9-E_{12}+E_2+E_4+E_7)(-E_9-E_{12}+E_7+E_8)(-E_6-E_{11}-E_{12}+E_4+E_7+E_{10})} \\
\frac{+f_1^-f_2^-f_3^-f_4^-f_9^-f_{11}^-f_{12}^--f_1^-f_2^-f_3^-f_6^-f_9^-f_{11}^-f_{12}^-+f_1^-f_3^-f_6^-f_9^-f_{10}^-f_{12}^-f_2^+-f_1^-f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_2^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_2+E_5)(-E_3-E_9-E_{12}+E_1+E_2+E_7)} \\
\frac{+f_1^-f_2^-f_3^-f_6^-f_{11}^-f_{12}^-f_{10}^+-f_1^-f_2^-f_3^-f_4^-f_{11}^-f_{12}^-f_{10}^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_2+E_3+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_{10})(-E_3-E_{11}-E_{12}+E_1+E_7+E_{10})} \\
\frac{+f_1^-f_3^-f_6^-f_9^-f_{10}^-f_{12}^-f_8^+-f_1^-f_3^-f_6^-f_8^-f_9^-f_{11}^-f_{12}^-+f_1^-f_3^-f_4^-f_8^-f_9^-f_{11}^-f_{12}^--f_1^-f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_8^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_8+E_1+E_2)(-E_1-E_9-E_{10}+E_3+E_8+E_{11})(-E_1-E_9-E_{12}+E_3+E_5+E_8)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_1^-f_3^-f_4^-f_8^-f_{11}^-f_{12}^-f_{10}^+-f_1^-f_3^-f_6^-f_8^-f_{11}^-f_{12}^-f_{10}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_8+E_1+E_2)(-E_3-E_8-E_{11}+E_1+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_{10})(-E_3-E_{11}-E_{12}+E_1+E_7+E_{10})} \\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_2^+f_6^+-f_2^-f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_6^+-f_1^-f_6^-f_9^-f_{10}^-f_{12}^-f_2^+f_4^++f_1^-f_2^-f_6^-f_9^-f_{11}^-f_{12}^-f_4^+}{(-E_3-E_4+E_1+E_6)(-E_2-E_4+E_6+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_2+E_5)(-E_6-E_9-E_{12}+E_2+E_4+E_7)} \\
\frac{+f_1^-f_2^-f_6^-f_{11}^-f_{12}^-f_4^+f_{10}^+-f_2^-f_3^-f_4^-f_{11}^-f_{12}^-f_6^+f_{10}^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_4+E_6+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_{10})(-E_6-E_{11}-E_{12}+E_4+E_7+E_{10})} \\
\frac{+f_1^-f_6^-f_8^-f_9^-f_{11}^-f_{12}^-f_4^+-f_1^-f_6^-f_9^-f_{10}^-f_{12}^-f_4^+f_8^+-f_3^-f_4^-f_8^-f_9^-f_{11}^-f_{12}^-f_6^++f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_6^+f_8^+}{(-E_1-E_6+E_3+E_4)(-E_6-E_8+E_2+E_4)(-E_6-E_8-E_{11}+E_4+E_9+E_{10})(-E_4-E_9-E_{12}+E_5+E_6+E_8)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^-f_4^-f_8^-f_{11}^-f_{12}^-f_6^+f_{10}^+-f_1^-f_6^-f_8^-f_{11}^-f_{12}^-f_4^+f_{10}^+}{(-E_3-E_4+E_1+E_6)(-E_6-E_8+E_2+E_4)(-E_6-E_8-E_{11}+E_4+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_{10})(-E_6-E_{11}-E_{12}+E_4+E_7+E_{10})} \\
\frac{+f_1^-f_3^-f_6^-f_9^-f_{10}^-f_{11}^-f_{12}^--f_1^-f_3^-f_4^-f_9^-f_{10}^-f_{11}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_8+E_{11})(-E_{11}-E_{12}+E_5+E_{10})(-E_3-E_{11}-E_{12}+E_1+E_7+E_{10})} \\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_{11}^-f_{12}^-f_6^+-f_1^-f_6^-f_9^-f_{10}^-f_{11}^-f_{12}^-f_4^+}{(-E_3-E_4+E_1+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_4-E_9-E_{10}+E_6+E_8+E_{11})(-E_{11}-E_{12}+E_5+E_{10})(-E_6-E_{11}-E_{12}+E_4+E_7+E_{10})} \\
\frac{+f_2^-f_3^-f_4^-f_5^-f_{11}^-f_7^+f_9^+-f_1^-f_2^-f_6^-f_7^-f_9^-f_{10}^-f_5^++f_2^-f_3^-f_5^-f_6^-f_9^-f_{10}^-f_7^++f_1^-f_2^-f_4^-f_7^-f_9^-f_{10}^-f_5^+-f_2^-f_3^-f_4^-f_5^-f_9^-f_{10}^-f_7^+-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_7^+f_9^++f_1^-f_2^-f_6^-f_7^-f_{11}^-f_5^+f_9^+-f_1^-f_2^-f_4^-f_7^-f_{11}^-f_5^+f_9^+}{(-E_3-E_5+E_1+E_7)(-E_4-E_7+E_5+E_6)(-E_2-E_5+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_5+E_9+E_{12})} \\
\frac{+f_1^-f_2^-f_6^-f_7^-f_{10}^-f_{11}^-f_5^+-f_2^-f_3^-f_5^-f_6^-f_{10}^-f_{11}^-f_7^++f_2^-f_3^-f_4^-f_5^-f_{10}^-f_{11}^-f_7^+-f_1^-f_2^-f_4^-f_7^-f_{10}^-f_{11}^-f_5^+}{(-E_1-E_7+E_3+E_5)(-E_5-E_6+E_4+E_7)(-E_2-E_5+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^-f_5^-f_6^-f_8^-f_9^-f_{10}^-f_7^+-f_1^-f_6^-f_7^-f_8^-f_9^-f_{10}^-f_5^++f_1^-f_4^-f_7^-f_8^-f_9^-f_{10}^-f_5^+-f_3^-f_4^-f_5^-f_8^-f_9^-f_{10}^-f_7^+-f_1^-f_4^-f_7^-f_8^-f_{11}^-f_5^+f_9^++f_1^-f_6^-f_7^-f_8^-f_{11}^-f_5^+f_9^++f_3^-f_4^-f_5^-f_8^-f_{11}^-f_7^+f_9^+-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_7^+f_9^+}{(-E_3-E_5+E_1+E_7)(-E_5-E_6+E_4+E_7)(-E_7-E_8+E_2+E_5)(-E_5-E_9-E_{10}+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_8^-f_{10}^-f_{11}^-f_7^++f_1^-f_6^-f_7^-f_8^-f_{10}^-f_{11}^-f_5^+-f_1^-f_4^-f_7^-f_8^-f_{10}^-f_{11}^-f_5^+-f_3^-f_5^-f_6^-f_8^-f_{10}^-f_{11}^-f_7^+}{(-E_3-E_5+E_1+E_7)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_2+E_5)(-E_7-E_8-E_{11}+E_5+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^-f_3^-f_5^-f_6^-f_{10}^-f_7^+f_{12}^+-f_2^-f_3^-f_4^-f_5^-f_{10}^-f_7^+f_{12}^++f_1^-f_2^-f_4^-f_7^-f_{10}^-f_5^+f_{12}^+-f_1^-f_2^-f_6^-f_7^-f_{10}^-f_5^+f_{12}^++f_2^-f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_7^+-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_{12}^-f_7^+-f_1^-f_2^-f_4^-f_7^-f_{11}^-f_{12}^-f_5^++f_1^-f_2^-f_6^-f_7^-f_{11}^-f_{12}^-f_5^+}{(-E_3-E_5+E_1+E_7)(-E_5-E_6+E_4+E_7)(-E_2-E_5+E_7+E_8)(-E_2-E_5+E_9+E_{12})(-E_5-E_{10}+E_{11}+E_{12})} \\
\frac{+f_1^-f_6^-f_7^-f_8^-f_{10}^-f_5^+f_{12}^++f_3^-f_4^-f_5^-f_8^-f_{10}^-f_7^+f_{12}^+-f_1^-f_4^-f_7^-f_8^-f_{10}^-f_5^+f_{12}^+-f_1^-f_6^-f_7^-f_8^-f_{11}^-f_{12}^-f_5^+-f_3^-f_4^-f_5^-f_8^-f_{11}^-f_{12}^-f_7^++f_1^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-f_5^++f_3^-f_5^-f_6^-f_8^-f_{11}^-f_{12}^-f_7^+-f_3^-f_5^-f_6^-f_8^-f_{10}^-f_7^+f_{12}^+}{(-E_1-E_7+E_3+E_5)(-E_5-E_6+E_4+E_7)(-E_7-E_8+E_2+E_5)(-E_7-E_8+E_9+E_{12})(-E_5-E_{10}+E_{11}+E_{12})}
\end{array}\right)$$

$$
+\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|3,2\}\{7,8|V|9,12\}\{9,10|V|7,6\}\{11,12|V|11,10\}f_1^- f_{11}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_7^- f_9^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_7+E_5+E_9+E_{10})(-E_2-E_3-E_7+E_5+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_{10}^- -f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_7+E_5+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_9^- f_{12}^- -f_2^- f_3^- f_5^- f_7^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_5-E_9-E_{12}+E_2+E_3+E_7)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_9^+ -f_2^- f_3^- f_7^- f_6^+ f_9^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_3)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_6-E_7+E_9+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_{10}^- +f_2^- f_3^- f_9^- f_{10}^- f_6^+ -f_2^- f_3^- f_7^- f_{10}^- f_6^+ -f_2^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_3)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_{12}^- -f_2^- f_3^- f_7^- f_{12}^- f_6^+ +f_2^- f_3^- f_9^- f_{12}^- f_6^+ -f_2^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_3)(-E_6+E_8)(-E_6-E_7+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_9^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{10})(-E_3-E_4-E_7+E_5+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- -f_3^- f_4^- f_5^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{12}^- -f_3^- f_4^- f_5^- f_7^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_5-E_9-E_{12}+E_3+E_4+E_7)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_6^+ f_9^+ -f_4^- f_5^- f_6^- f_7^- f_9^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_6-E_7+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_6^+ -f_4^- f_5^- f_6^- f_9^- f_{10}^- -f_3^- f_4^- f_7^- f_{10}^- f_6^+ +f_4^- f_5^- f_6^- f_7^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_6+E_8)(-E_9-E_{10}+E_6+E_7)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{12}^- f_6^+ +f_4^- f_5^- f_6^- f_9^- f_{12}^- -f_3^- f_4^- f_9^- f_{12}^- f_6^+ -f_4^- f_5^- f_6^- f_7^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_6+E_8)(-E_6-E_7+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_9^+ -f_2^- f_3^- f_7^- f_8^+ f_9^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_8^+ -f_2^- f_5^- f_7^- f_8^- f_{10}^- -f_2^- f_3^- f_9^- f_{10}^- f_8^+ +f_2^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_{12}^- f_8^+ +f_2^- f_5^- f_7^- f_8^- f_{12}^- -f_2^- f_3^- f_7^- f_{12}^- f_8^+ -f_2^- f_5^- f_8^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_8+E_6)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_9^+ -f_3^- f_4^- f_7^- f_8^+ f_9^+}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_8^+ -f_4^- f_5^- f_7^- f_8^- f_{10}^- -f_3^- f_4^- f_9^- f_{10}^- f_8^+ +f_4^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_8^+ -f_3^- f_4^- f_7^- f_{12}^- f_8^+ +f_4^- f_5^- f_7^- f_8^- f_{12}^- -f_4^- f_5^- f_8^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_8+E_6)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_7^+ -f_2^- f_3^- f_7^- f_9^+ f_{10}^+}{(-E_2+E_4)(-E_5-E_9-E_{10}+E_2+E_3+E_7)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^+ f_{10}^+ -f_4^- f_5^- f_9^- f_{10}^- f_7^+}{(-E_4+E_2)(-E_3-E_4-E_7+E_5+E_9+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{12}^- f_7^+ -f_2^- f_3^- f_7^- f_9^+ f_{12}^+}{(-E_2+E_4)(-E_5-E_9-E_{12}+E_2+E_3+E_7)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_9^+ f_{12}^+ -f_4^- f_5^- f_9^- f_{12}^- f_7^+}{(-E_4+E_2)(-E_3-E_4-E_7+E_5+E_9+E_{12})(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})} \\
\frac{+f_5^- f_6^- f_7^- f_3^+ f_9^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_7+E_9+E_{10})(-E_6-E_7+E_9+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_3^+ -f_5^- f_6^- f_7^- f_{10}^- f_3^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_9-E_{10}+E_6+E_7)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_{12}^- f_3^+ -f_5^- f_6^- f_9^- f_{12}^- f_3^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_6+E_8)(-E_6-E_7+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_5^- f_7^- f_8^- f_3^+ f_9^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_3^+ -f_5^- f_7^- f_8^- f_{10}^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_{12}^- f_3^+ -f_5^- f_8^- f_9^- f_{12}^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_8+E_6)(-E_7-E_8+E_9+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_5^- f_9^- f_{10}^- f_3^+ f_7^+}{(-E_5-E_9-E_{10}+E_2+E_3+E_7)(-E_5-E_9-E_{10}+E_3+E_4+E_7)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_9^- f_{12}^- f_3^+ f_7^+}{(-E_5-E_9-E_{12}+E_2+E_3+E_7)(-E_5-E_9-E_{12}+E_3+E_4+E_7)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}
\end{array}\right)
$$

$$+\frac{1}{3}\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|7,6\}\{7,8|V|9,12\}\{9,10|V|3,2\}\{11,12|V|11,10\}f_1^- f_6^- f_{11}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_9^+}{(-E_2+E_4)(-E_5+E_7)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_9+E_{10})(-E_2-E_3+E_9+E_{12})}\\
\frac{+f_2^- f_3^- f_5^- f_{10}^-}{(-E_2+E_4)(-E_5+E_7)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_2^- f_5^- f_8^- f_9^+}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_9+E_{12})}\\
\frac{+f_2^- f_5^- f_8^- f_{10}^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_2^- f_3^- f_5^- f_{12}^-}{(-E_2+E_4)(-E_5+E_7)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_2^- f_5^- f_8^- f_{12}^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_3^- f_4^- f_5^- f_9^+}{(-E_4+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_{10}^-}{(-E_4+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_4^- f_5^- f_8^- f_9^+}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_9+E_{12})}\\
\frac{+f_4^- f_5^- f_8^- f_{10}^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_{12}^-}{(-E_4+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_4^- f_5^- f_8^- f_{12}^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_2^- f_3^- f_7^- f_9^+}{(-E_2+E_4)(-E_7+E_5)(-E_2-E_3+E_7+E_8)(-E_2-E_3+E_9+E_{10})(-E_2-E_3+E_9+E_{12})}\\
\frac{+f_2^- f_3^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_7+E_5)(-E_2-E_3+E_7+E_8)(-E_2-E_3+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_2^- f_7^- f_8^- f_9^+}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_2^- f_7^- f_8^- f_{10}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_7-E_8+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_2^- f_3^- f_7^- f_{12}^-}{(-E_2+E_4)(-E_7+E_5)(-E_2-E_3+E_7+E_8)(-E_2-E_3+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_2^- f_7^- f_8^- f_{12}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_7-E_8+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_3^- f_4^- f_7^- f_9^+}{(-E_4+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_{10}^-}{(-E_4+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_4^- f_7^- f_8^- f_9^+}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_4^- f_7^- f_8^- f_{10}^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_{12}^-}{(-E_4+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_4^- f_7^- f_8^- f_{12}^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_2^- f_5^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5+E_7)(-E_9-E_{10}+E_2+E_3)(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})}\\
\frac{+f_2^- f_7^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_7+E_5)(-E_9-E_{10}+E_2+E_3)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})}\\
\frac{+f_4^- f_5^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5+E_7)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})}\\
\frac{+f_4^- f_7^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_7+E_5)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})}\\
\frac{+f_2^- f_5^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_5+E_7)(-E_9-E_{12}+E_2+E_3)(-E_9-E_{12}+E_5+E_8)(-E_{12}+E_{10})}\\
\frac{+f_2^- f_7^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_7+E_5)(-E_9-E_{12}+E_2+E_3)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}\\
\frac{+f_4^- f_5^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_5+E_7)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_8)(-E_{12}+E_{10})}\\
\frac{+f_4^- f_7^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_7+E_5)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}\\
\frac{+f_2^- f_3^- f_8^+ f_9^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_7+E_8)(-E_2-E_3+E_9+E_{10})(-E_2-E_3+E_9+E_{12})}\\
\frac{+f_2^- f_3^- f_{10}^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_7+E_8)(-E_2-E_3+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_2^- f_3^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_7+E_8)(-E_2-E_3+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_3^- f_4^- f_8^+ f_9^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_3^- f_4^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_3^- f_4^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_2^- f_9^- f_{10}^- f_8^+}{(-E_2+E_4)(-E_9-E_{10}+E_2+E_3)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})}\\
\frac{+f_4^- f_9^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_7+E_8)(-E_{10}+E_{12})}\\
\frac{+f_2^- f_9^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_9-E_{12}+E_2+E_3)(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}\\
\frac{+f_4^- f_9^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_{12}+E_{10})}\\
\frac{+f_5^- f_8^- f_3^+ f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_9+E_{12})}\\
\frac{+f_5^- f_8^- f_{10}^- f_3^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_5^- f_8^- f_{12}^- f_3^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_7^- f_8^- f_3^+ f_9^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_7^- f_8^- f_{10}^- f_3^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_9+E_{10})(-E_{10}+E_{12})}\\
\frac{+f_7^- f_8^- f_{12}^- f_3^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_{12}+E_{10})}
\end{array}\right)$$

$$
+\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|3,2\}\{9,10|V|11,6\}\{11,12|V|9,8\}f_1^-
\left(\begin{array}{c}
\frac{+f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- +f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- -f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- -f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{11}+E_5+E_9)(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^- -f_2^- f_5^- f_6^- f_7^- f_8^- f_9^- +f_2^- f_5^- f_6^- f_7^- f_8^- f_{11}^- -f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_7-E_8+E_2+E_3)(-E_7-E_{10}+E_5+E_6)(-E_5-E_9+E_7+E_{11})(-E_7-E_8+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ -f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ -f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_3)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ -f_2^- f_3^- f_5^- f_9^- f_{10}^- f_8^+ -f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+ +f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_5-E_6-E_8+E_2+E_3+E_{10})(-E_5-E_8-E_9+E_2+E_3+E_{11})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_8^+ -f_2^- f_3^- f_{10}^- f_{11}^- f_6^+ f_8^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{11}^- f_9^+ -f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_7-E_{11}+E_5+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_2-E_3-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_2^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ -f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_3)(-E_7-E_{11}+E_5+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_{10}^- f_{11}^- f_8^+ f_9^+ -f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_9^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3-E_{11}+E_5+E_8+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^+ +f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^+ -f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^+ -f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)(-E_7-E_{11}-E_{12}+E_2+E_3+E_9)} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_8^+ f_{12}^+ +f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_{12}^+ -f_2^- f_3^- f_6^- f_9^- f_8^+ f_{12}^+ -f_2^- f_3^- f_{10}^- f_{11}^- f_8^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_7+E_8)(-E_2-E_3+E_5+E_{12})(-E_{10}-E_{12}+E_6+E_8)(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_6^- f_7^- f_8^- f_9^- f_{12}^+ -f_2^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^+ -f_2^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^+ +f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_3)(-E_7-E_8+E_5+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- +f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- -f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- -f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{11}+E_5+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- -f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^- +f_4^- f_5^- f_6^- f_7^- f_8^- f_9^- -f_4^- f_5^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{11}+E_5+E_9)(-E_7-E_8+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ -f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ -f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_8^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ +f_3^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ -f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_5-E_6-E_8+E_3+E_4+E_{10})(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+ -f_3^- f_4^- f_{10}^- f_{11}^- f_6^+ f_8^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_9^+ -f_3^- f_4^- f_6^- f_7^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_7-E_{11}+E_5+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_4^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ -f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_{11}+E_5+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_9^+ -f_3^- f_4^- f_{10}^- f_{11}^- f_8^+ f_9^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^+ +f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ -f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_7-E_{11}-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_{12}^+ +f_3^- f_4^- f_9^- f_{10}^- f_8^+ f_{12}^+ -f_3^- f_4^- f_6^- f_9^- f_8^+ f_{12}^+ -f_3^- f_4^- f_{10}^- f_{11}^- f_8^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_4^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^+ -f_4^- f_6^- f_7^- f_8^- f_9^- f_{12}^+ +f_4^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^+ -f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_5+E_{12})(-E_{10}-E_{12}+E_6+E_8)(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{10}^+ -f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^+}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_2-E_3-E_{10}+E_5+E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+ -f_2^- f_5^- f_6^- f_8^- f_9^- f_{10}^+}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_2+E_3+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{10}^+ -f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^+}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_3-E_4-E_{10}+E_5+E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_9^- f_{10}^+ -f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_3+E_4+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- -f_2^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- +f_2^- f_5^- f_6^- f_7^- f_9^- f_{12}^- -f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{11}+E_5+E_9)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_7+E_8)} \\
\frac{+f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- +f_4^- f_5^- f_6^- f_7^- f_9^- f_{12}^- -f_4^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- -f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{11}+E_5+E_9)(-E_5-E_{12}+E_3+E_4)(-E_5-E_{12}+E_7+E_8)} \\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ -f_2^- f_5^- f_6^- f_9^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ -f_4^- f_5^- f_6^- f_9^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ -f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ -f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+ -f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_5-E_9+E_7+E_{11})(-E_2-E_3-E_{11}+E_5+E_8+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_9^- f_{11}^+ -f_2^- f_5^- f_8^- f_9^- f_{10}^- f_{11}^+}{(-E_2+E_4)(-E_5-E_9+E_7+E_{11})(-E_5-E_8-E_9+E_2+E_3+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^+ -f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_5-E_9+E_7+E_{11})(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_9^- f_{11}^+ -f_4^- f_5^- f_8^- f_9^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_5-E_9+E_7+E_{11})(-E_5-E_8-E_9+E_3+E_4+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+ -f_2^- f_5^- f_6^- f_9^- f_{12}^- f_{11}^+}{(-E_2+E_4)(-E_5-E_9+E_7+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_5-E_{12}+E_2+E_3)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_{12}^- f_{11}^+ -f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+}{(-E_4+E_2)(-E_5-E_9+E_7+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_9^+ -f_2^- f_6^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_2+E_4)(-E_7-E_{11}+E_5+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_7-E_{11}-E_{12}+E_2+E_3+E_9)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_9^+ -f_4^- f_6^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_4+E_2)(-E_7-E_{11}+E_5+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_7-E_{11}-E_{12}+E_3+E_4+E_9)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{10}^+ f_{12}^+ -f_2^- f_3^- f_6^- f_{11}^- f_{10}^+ f_{12}^+}{(-E_2+E_4)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_3+E_5+E_{12})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_{11}^+ f_{12}^+ -f_2^- f_3^- f_6^- f_9^- f_{11}^+ f_{12}^+}{(-E_2+E_4)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_3+E_5+E_{12})(-E_2-E_3-E_9+E_7+E_{11}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_{10}^+ f_{12}^+ -f_3^- f_4^- f_6^- f_9^- f_{10}^+ f_{12}^+}{(-E_4+E_2)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{11}^+ f_{12}^+ -f_3^- f_4^- f_6^- f_9^- f_{11}^+ f_{12}^+}{(-E_4+E_2)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_9+E_7+E_{11}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ -f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ +f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_8^+ -f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_7+E_8)(-E_6-E_8+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ -f_4^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ -f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_8^+ +f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_5-E_{12}+E_3+E_4)(-E_5-E_{12}+E_7+E_8)(-E_{10}-E_{12}+E_6+E_8)(-E_8-E_9+E_{11}+E_{12})}
\end{array}\right)
$$

$$+\frac{f_1^- f_2^- f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_2-E_5-E_7+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$+\frac{f_1^- f_2^- f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_6+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$+\frac{f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_6+E_{11})(-E_3-E_6-E_7+E_1+E_9+E_{12})}$$

$$+\frac{f_3^- f_4^- f_5^- f_6^- f_7^- f_{10}^- f_1^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_3-E_{10}+E_1+E_2)(-E_5-E_7-E_{10}+E_1+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$+\frac{f_1^- f_2^- f_4^- f_5^- f_6^- f_7^- f_{10}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_5-E_7-E_{10}+E_1+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}$$

$$+\frac{f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_3-E_{10}+E_1+E_2)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$+\frac{f_3^- f_5^- f_6^- f_7^- f_{10}^- f_1^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_3-E_{10}+E_1+E_2)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_6-E_7+E_1+E_9+E_{12})}$$

$$+\frac{f_1^- f_2^- f_4^- f_5^- f_6^- f_9^- f_{10}^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_1-E_2+E_3+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}$$

$$+\frac{f_1^- f_2^- f_5^- f_6^- f_7^- f_9^+ f_{10}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_2-E_6-E_7+E_9+E_{10}+E_{12})}$$

$$+\frac{f_1^- f_3^- f_4^- f_6^- f_{11}^- f_5^+ f_7^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_3-E_4-E_{11}+E_2+E_5+E_7)(-E_1-E_4-E_{11}+E_5+E_7+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$+\frac{f_1^- f_2^- f_5^- f_6^- f_7^- f_4^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_2-E_5-E_7+E_3+E_4+E_{11})(-E_1-E_4-E_{11}+E_5+E_7+E_{10})(-E_2-E_7+E_{11}+E_{12})}$$

$$+\frac{f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- f_9^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_3-E_6-E_{11}+E_1+E_2+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$+\frac{f_3^- f_5^- f_6^- f_7^- f_{11}^- f_1^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_3-E_6-E_{11}+E_1+E_2+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_6-E_7+E_1+E_9+E_{12})}$$

$$+\frac{f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_2-E_9+E_3+E_6+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_2-E_7+E_{11}+E_{12})}$$

$$+\frac{f_1^- f_2^- f_4^- f_5^- f_9^- f_6^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_1-E_2-E_9+E_3+E_6+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_1-E_2-E_4-E_9+E_5+E_6+E_{11}+E_{12})}$$

$$+\frac{f_5^- f_6^- f_7^- f_{10}^- f_{12}^- f_1^+ f_4^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_5-E_7-E_{10}+E_1+E_4+E_{11})(-E_5-E_{12}+E_3+E_4)(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)}$$

$$+\frac{f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_7^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_4-E_{11}+E_5+E_7+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_2+E_7)}$$

$$+\frac{f_1^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_{12}+E_3+E_4)(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)}$$

$$+\frac{f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_5-E_6-E_{11}-E_{12}+E_1+E_2+E_4+E_9)}$$

$$+\frac{f_1^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+ f_7^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_9-E_{10}+E_6+E_{11})(-E_1-E_9-E_{12}+E_3+E_6+E_7)(-E_9-E_{10}-E_{12}+E_2+E_6+E_7)}$$

$$+\frac{f_1^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_7^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_1-E_9-E_{12}+E_3+E_6+E_7)(-E_{11}-E_{12}+E_2+E_7)}$$

$$+\frac{f_1^- f_2^- f_5^- f_6^- f_7^- f_{12}^- f_4^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_5-E_{12}+E_3+E_4)(-E_1-E_2-E_4+E_5+E_{10}+E_{12})(-E_2-E_7+E_{11}+E_{12})}$$

$$+\frac{f_1^- f_2^- f_4^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_5-E_{12}+E_3+E_4)(-E_1-E_2-E_4+E_5+E_{10}+E_{12})(-E_1-E_2-E_4-E_9+E_5+E_6+E_{11}+E_{12})}$$

$$+\frac{f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_{12}^-}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_9-E_{12}+E_3+E_6+E_7)(-E_2-E_6-E_7+E_9+E_{10}+E_{12})(-E_2-E_7+E_{11}+E_{12})}$$

$$+\frac{f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_8^-}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_2-E_5-E_7+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$+\frac{f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_6^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_7-E_8+E_3+E_4+E_6+E_{11})(-E_3-E_4-E_6+E_1+E_8+E_{12})}$$

$$+\frac{f_1^- f_2^- f_3^- f_4^- f_8^- f_9^- f_6^+}{(-E_1-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_6+E_{11})(-E_3-E_4-E_6+E_1+E_8+E_{12})}$$

$$+\frac{f_1^- f_2^- f_3^- f_7^- f_8^- f_6^+ f_9^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_6+E_{11})(-E_3-E_6-E_7+E_1+E_9+E_{12})}$$

$$+\frac{f_1^- f_2^- f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_1-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_2-E_5-E_9+E_3+E_8+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$+\frac{f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_9^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_2-E_5-E_9+E_3+E_8+E_{11})(-E_3-E_7-E_8+E_5+E_9+E_{12})}$$

$$+\frac{f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_{10}+E_1+E_2)(-E_5-E_7-E_{10}+E_1+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$+\frac{f_1^- f_2^- f_4^- f_5^- f_7^- f_8^- f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_5-E_7-E_{10}+E_1+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}$$

$$+\frac{f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_{10}+E_1+E_2)(-E_7-E_8-E_{10}+E_4+E_6+E_{11})(-E_3-E_4-E_6+E_1+E_8+E_{12})}$$

$$+\frac{f_1^- f_2^- f_4^- f_7^- f_8^- f_6^+ f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_7-E_8-E_{10}+E_4+E_6+E_{11})(-E_2-E_4-E_6+E_8+E_{10}+E_{12})}$$

$$+\frac{f_1^- f_3^- f_4^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_1-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_3-E_{10}+E_1+E_2)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4-E_6+E_1+E_8+E_{12})}$$

$$+\frac{f_1^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ f_9^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_{10}+E_1+E_2)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_6-E_7+E_1+E_9+E_{12})}$$

$$+\frac{f_1^- f_2^- f_4^- f_8^- f_9^- f_6^+ f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_2-E_4-E_6+E_8+E_{10}+E_{12})}$$

$$+\frac{f_1^- f_2^- f_7^- f_8^- f_6^+ f_9^+ f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_2-E_6-E_7+E_9+E_{10}+E_{12})}$$

$$+\frac{f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_1-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_3-E_{10}+E_1+E_2)(-E_5-E_9-E_{10}+E_1+E_8+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$+\frac{f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_9^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_{10}+E_1+E_2)(-E_5-E_9-E_{10}+E_1+E_8+E_{11})(-E_3-E_7-E_8+E_5+E_9+E_{12})}$$

$$+\frac{f_1^- f_2^- f_4^- f_5^- f_8^- f_9^- f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_5-E_9-E_{10}+E_1+E_8+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}$$

$$+\frac{f_1^- f_2^- f_5^- f_7^- f_8^- f_9^+ f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2+E_3+E_{10})(-E_5-E_9-E_{10}+E_1+E_8+E_{11})(-E_1-E_2-E_7-E_8+E_5+E_9+E_{10}+E_{12})}$$

$$+\frac{f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_4+E_9)(-E_2-E_5-E_6+E_3+E_8+E_{10})(-E_2-E_5-E_7+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$+\frac{f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_4-E_9+E_7+E_8)(-E_2-E_5-E_6+E_3+E_8+E_{10})(-E_2-E_5-E_9+E_3+E_8+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$+\frac{f_2^- f_3^- f_5^- f_6^- f_7^- f_8^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_4+E_9)(-E_2-E_5-E_6+E_3+E_8+E_{10})(-E_2-E_5-E_9+E_3+E_8+E_{11})(-E_3-E_7-E_8+E_5+E_9+E_{12})}$$

$$+\frac{f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- f_{10}^-}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_4+E_9)(-E_3-E_8-E_{10}+E_2+E_5+E_6)(-E_7-E_8-E_{10}+E_4+E_6+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$+\frac{f_2^- f_4^- f_5^- f_6^- f_7^- f_8^+ f_{10}^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_4+E_9)(-E_2-E_5-E_6+E_3+E_8+E_{10})(-E_7-E_8-E_{10}+E_4+E_6+E_{11})(-E_2-E_4-E_6+E_8+E_{10}+E_{12})}$$

$$+\frac{f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_4-E_9+E_7+E_8)(-E_3-E_8-E_{10}+E_2+E_5+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$
+\frac{1}{6}\{1,2|V|3,12\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|5,2\}\{9,10|V|11,4\}\{11,12|V|9,8\}
\left(\begin{array}{r}
\frac{+f_1^-f_2^-f_3^-f_4^-f_5^-f_7^-f_9^- -f_1^-f_2^-f_3^-f_4^-f_5^-f_7^-f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_2-E_5+E_7+E_8)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_5-E_9+E_1+E_7+E_{11})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_5^+ -f_1^-f_3^-f_4^-f_5^-f_7^-f_8^-f_9^-}{(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_2+E_5)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_1-E_7-E_{11}+E_3+E_5+E_9)(-E_1-E_7-E_8+E_3+E_5+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_7^-f_9^- -f_1^-f_2^-f_3^-f_5^-f_6^-f_7^-f_{11}^-}{(-E_1-E_6+E_3+E_4)(-E_2-E_5+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_5-E_9+E_1+E_7+E_{11})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_3^-f_5^-f_6^-f_7^-f_8^-f_9^- -f_1^-f_3^-f_6^-f_7^-f_8^-f_{11}^-f_5^+}{(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_2+E_5)(-E_5-E_6+E_7+E_{10})(-E_3-E_5-E_9+E_1+E_7+E_{11})(-E_1-E_7-E_8+E_3+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_5^-f_7^-f_{11}^-f_6^+ -f_2^-f_3^-f_4^-f_5^-f_7^-f_9^-f_6^+ -f_1^-f_2^-f_5^-f_6^-f_7^-f_{11}^-f_4^+ +f_1^-f_2^-f_5^-f_6^-f_7^-f_9^-f_4^+}{(-E_3-E_4+E_1+E_6)(-E_2-E_5+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_4-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_4+E_6+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{11}^-f_5^+f_6^+ -f_3^-f_4^-f_5^-f_7^-f_8^-f_9^-f_6^+ -f_1^-f_6^-f_7^-f_8^-f_{11}^-f_4^+f_5^+ +f_1^-f_5^-f_6^-f_7^-f_8^-f_9^-f_4^+}{(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_2+E_5)(-E_5-E_6+E_7+E_{10})(-E_4-E_7-E_{11}+E_5+E_6+E_9)(-E_4-E_7-E_8+E_5+E_6+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_4^-f_7^-f_8^-f_{11}^- -f_1^-f_3^-f_4^-f_7^-f_8^-f_9^-f_2^+ -f_1^-f_2^-f_3^-f_4^-f_5^-f_{11}^-f_8^+ +f_1^-f_2^-f_3^-f_4^-f_5^-f_9^-f_8^+}{(-E_3-E_4+E_1+E_6)(-E_7-E_8+E_2+E_5)(-E_3-E_4-E_8+E_1+E_2+E_{10})(-E_1-E_2-E_{11}+E_3+E_8+E_9)(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_6^-f_7^-f_8^-f_{11}^- -f_1^-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_8^+ -f_1^-f_3^-f_6^-f_7^-f_8^-f_9^-f_2^+ +f_1^-f_2^-f_3^-f_5^-f_6^-f_9^-f_8^+}{(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_2+E_5)(-E_6-E_8+E_2+E_{10})(-E_1-E_2-E_{11}+E_3+E_8+E_9)(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_2^-f_5^-f_6^-f_9^-f_4^+f_8^+ -f_1^-f_6^-f_7^-f_8^-f_9^-f_2^+f_4^+ +f_3^-f_4^-f_7^-f_8^-f_9^-f_2^+f_6^+ -f_2^-f_3^-f_4^-f_5^-f_9^-f_6^+f_8^+ -f_2^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_6^+ +f_1^-f_2^-f_6^-f_7^-f_8^-f_{11}^-f_4^+ -f_1^-f_2^-f_5^-f_6^-f_{11}^-f_4^+f_8^+ +f_2^-f_3^-f_4^-f_5^-f_{11}^-f_6^+f_8^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_5+E_7+E_8)(-E_6-E_8+E_2+E_{10})(-E_6-E_8-E_9+E_2+E_4+E_{11})(-E_2-E_4+E_6+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_9^-f_{10}^-f_4^+ -f_1^-f_2^-f_3^-f_4^-f_5^-f_9^-f_{10}^+ +f_1^-f_2^-f_3^-f_4^-f_5^-f_{11}^-f_{10}^+ -f_1^-f_2^-f_3^-f_4^-f_7^-f_{10}^-f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_1-E_2-E_{10}+E_3+E_4+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_5^-f_8^-f_{11}^-f_{10}^+ -f_1^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{10}^+ +f_1^-f_3^-f_4^-f_7^-f_8^-f_9^-f_{10}^- -f_1^-f_3^-f_4^-f_5^-f_8^-f_9^-f_{10}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_4-E_8+E_1+E_2+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_4-E_8+E_{10}+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_5^-f_7^-f_9^-f_{12}^- -f_1^-f_3^-f_4^-f_5^-f_7^-f_{11}^-f_{12}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_5-E_9+E_1+E_7+E_{11})(-E_3-E_{12}+E_1+E_2)(-E_3-E_5-E_{12}+E_1+E_7+E_8)}\\
\frac{+f_1^-f_3^-f_4^-f_5^-f_9^-f_{12}^-f_{10}^+ -f_1^-f_3^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+ -f_1^-f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_{10}^+ +f_1^-f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_{12}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_3-E_{12}+E_1+E_2)(-E_{10}-E_{12}+E_4+E_8)}\\
\frac{+f_1^-f_2^-f_5^-f_6^-f_{11}^-f_4^+f_{10}^+ -f_1^-f_2^-f_5^-f_6^-f_9^-f_4^+f_{10}^+ +f_1^-f_2^-f_6^-f_7^-f_9^-f_{10}^-f_4^+ -f_2^-f_3^-f_4^-f_7^-f_9^-f_{10}^-f_6^+ +f_2^-f_3^-f_4^-f_5^-f_9^-f_6^+f_{10}^+ -f_2^-f_3^-f_4^-f_5^-f_{11}^-f_6^+f_{10}^+ +f_2^-f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_6^+ -f_1^-f_2^-f_6^-f_7^-f_{10}^-f_{11}^-f_4^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_2-E_{10}+E_6+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_6+E_{12})}\\
\frac{+f_1^-f_5^-f_6^-f_8^-f_9^-f_4^+f_{10}^+ +f_3^-f_4^-f_5^-f_8^-f_{11}^-f_6^+f_{10}^+ -f_3^-f_4^-f_7^-f_8^-f_{11}^-f_6^+f_{10}^+ -f_3^-f_4^-f_5^-f_8^-f_9^-f_6^+f_{10}^+ +f_1^-f_6^-f_7^-f_8^-f_{11}^-f_4^+f_{10}^+ -f_1^-f_6^-f_7^-f_8^-f_9^-f_{10}^-f_4^+ +f_3^-f_4^-f_7^-f_8^-f_9^-f_{10}^-f_6^+ -f_1^-f_5^-f_6^-f_8^-f_{11}^-f_4^+f_{10}^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_6-E_8+E_2+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_4-E_8+E_{10}+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_9^-f_{10}^-f_6^+ -f_1^-f_2^-f_3^-f_5^-f_6^-f_9^-f_{10}^+ +f_1^-f_2^-f_3^-f_5^-f_6^-f_{11}^-f_{10}^+ -f_1^-f_2^-f_3^-f_6^-f_7^-f_{10}^-f_{11}^-}{(-E_1-E_6+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_2-E_{10}+E_6+E_8)(-E_3-E_9-E_{10}+E_1+E_6+E_{11})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_3^-f_6^-f_7^-f_8^-f_{11}^-f_{10}^+ -f_1^-f_3^-f_5^-f_6^-f_8^-f_{11}^-f_{10}^+ +f_1^-f_3^-f_5^-f_6^-f_8^-f_9^-f_{10}^+ -f_1^-f_3^-f_6^-f_7^-f_8^-f_9^-f_{10}^-}{(-E_1-E_6+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_6-E_8+E_2+E_{10})(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_1-E_6-E_8+E_3+E_{10}+E_{12})}\\
\frac{+f_1^-f_3^-f_5^-f_6^-f_7^-f_9^-f_{12}^- -f_1^-f_3^-f_5^-f_6^-f_7^-f_{11}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_3-E_5-E_9+E_1+E_7+E_{11})(-E_3-E_{12}+E_1+E_2)(-E_3-E_5-E_{12}+E_1+E_7+E_8)}\\
\frac{+f_3^-f_4^-f_5^-f_7^-f_9^-f_{12}^-f_6^+ -f_1^-f_5^-f_6^-f_7^-f_9^-f_{12}^-f_4^+ -f_3^-f_4^-f_5^-f_7^-f_{11}^-f_{12}^-f_6^+ +f_1^-f_5^-f_6^-f_7^-f_{11}^-f_{12}^-f_4^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_4+E_7+E_{11})(-E_6-E_{12}+E_2+E_4)(-E_5-E_6-E_{12}+E_4+E_7+E_8)}\\
\frac{+f_1^-f_5^-f_6^-f_9^-f_{12}^-f_4^+f_{10}^+ -f_3^-f_4^-f_5^-f_9^-f_{12}^-f_6^+f_{10}^+ -f_1^-f_6^-f_7^-f_9^-f_{10}^-f_{12}^-f_4^+ +f_3^-f_4^-f_7^-f_9^-f_{10}^-f_{12}^-f_6^+ +f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_6^+f_{10}^+ -f_1^-f_5^-f_6^-f_{11}^-f_{12}^-f_4^+f_{10}^+ -f_3^-f_4^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_6^+ +f_1^-f_6^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_4^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_6-E_{12}+E_2+E_4)(-E_{10}-E_{12}+E_4+E_8)}\\
\frac{+f_1^-f_3^-f_7^-f_9^-f_{10}^-f_{12}^-f_6^+ -f_1^-f_3^-f_5^-f_6^-f_9^-f_{12}^-f_{10}^+ +f_1^-f_3^-f_5^-f_6^-f_{11}^-f_{12}^-f_{10}^+ -f_1^-f_3^-f_6^-f_7^-f_{10}^-f_{11}^-f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_3-E_9-E_{10}+E_1+E_6+E_{11})(-E_3-E_{12}+E_1+E_2)(-E_3-E_{10}-E_{12}+E_1+E_6+E_8)}\\
\frac{+f_1^-f_2^-f_3^-f_4^-f_5^-f_9^-f_{11}^+ -f_1^-f_2^-f_3^-f_4^-f_7^-f_{11}^-f_9^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_5-E_9+E_1+E_7+E_{11})(-E_1-E_2-E_{11}+E_3+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_7^-f_8^-f_9^-f_{11}^- -f_1^-f_3^-f_4^-f_5^-f_8^-f_9^-f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{11}+E_3+E_5+E_9)(-E_3-E_8-E_9+E_1+E_2+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_5^-f_6^-f_9^-f_{11}^+ -f_1^-f_2^-f_3^-f_6^-f_7^-f_{11}^-f_9^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_5-E_9+E_1+E_7+E_{11})(-E_1-E_2-E_{11}+E_3+E_8+E_9)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_3^-f_6^-f_7^-f_8^-f_9^-f_{11}^- -f_1^-f_3^-f_5^-f_6^-f_8^-f_9^-f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_7-E_{11}+E_3+E_5+E_9)(-E_3-E_8-E_9+E_1+E_2+E_{11})(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})}\\
\frac{+f_1^-f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_9^+ -f_1^-f_3^-f_4^-f_5^-f_9^-f_{12}^-f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_{11}+E_3+E_5+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_{11}-E_{12}+E_8+E_9)}\\
\frac{+f_1^-f_3^-f_6^-f_7^-f_{11}^-f_{12}^-f_9^+ -f_1^-f_3^-f_5^-f_6^-f_9^-f_{12}^-f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_7-E_{11}+E_3+E_5+E_9)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_{11}-E_{12}+E_8+E_9)}\\
\frac{+f_2^-f_3^-f_4^-f_7^-f_{11}^-f_6^+f_9^+ -f_1^-f_2^-f_6^-f_7^-f_{11}^-f_4^+f_9^+ -f_2^-f_3^-f_4^-f_5^-f_9^-f_6^+f_{11}^+ +f_1^-f_2^-f_5^-f_6^-f_9^-f_4^+f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_4-E_{11}+E_6+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_6+E_{12})}\\
\frac{+f_1^-f_5^-f_6^-f_8^-f_9^-f_4^+f_{11}^+ -f_3^-f_4^-f_5^-f_8^-f_9^-f_6^+f_{11}^+ +f_3^-f_4^-f_7^-f_8^-f_9^-f_{11}^-f_6^+ -f_1^-f_6^-f_7^-f_8^-f_9^-f_{11}^-f_4^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6-E_9+E_4+E_7+E_{11})(-E_6-E_8-E_9+E_2+E_4+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{11}^-f_{12}^-f_6^+f_9^+ -f_3^-f_4^-f_5^-f_9^-f_{12}^-f_6^+f_{11}^+ -f_1^-f_6^-f_7^-f_{11}^-f_{12}^-f_4^+f_9^+ +f_1^-f_5^-f_6^-f_9^-f_{12}^-f_4^+f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_7-E_{11}+E_5+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_6-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_8+E_9)}\\
\frac{+f_1^-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^- -f_1^-f_3^-f_4^-f_7^-f_8^-f_9^-f_{12}^+ -f_1^-f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_8^+ +f_1^-f_3^-f_4^-f_5^-f_9^-f_{12}^-f_8^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_{12}+E_1+E_2)(-E_1-E_7-E_8+E_3+E_5+E_{12})(-E_4-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)}\\
\frac{+f_1^-f_3^-f_5^-f_6^-f_{11}^-f_{12}^-f_8^+ -f_1^-f_3^-f_6^-f_7^-f_8^-f_{11}^-f_{12}^- +f_1^-f_3^-f_6^-f_7^-f_8^-f_9^-f_{12}^+ -f_1^-f_3^-f_5^-f_6^-f_9^-f_{12}^-f_8^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_{12}+E_1+E_2)(-E_3-E_5-E_{12}+E_1+E_7+E_8)(-E_1-E_6-E_8+E_3+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)}\\
\frac{+f_1^-f_6^-f_7^-f_8^-f_9^-f_4^+f_{12}^+ +f_3^-f_4^-f_5^-f_9^-f_{12}^-f_6^+f_8^+ -f_1^-f_5^-f_6^-f_9^-f_{12}^-f_4^+f_8^+ -f_1^-f_6^-f_7^-f_8^-f_{11}^-f_{12}^-f_4^+ +f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-f_6^+ +f_1^-f_5^-f_6^-f_{11}^-f_{12}^-f_4^+f_8^+ -f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_6^+f_8^+ -f_3^-f_4^-f_7^-f_8^-f_9^-f_6^+f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_6-E_{12}+E_2+E_4)(-E_4-E_7-E_8+E_5+E_6+E_{12})(-E_4-E_8+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_7^-f_{10}^-f_{11}^-f_5^+ -f_1^-f_2^-f_3^-f_5^-f_7^-f_9^-f_{10}^-}{(-E_2-E_5+E_7+E_8)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_7-E_{10}+E_5+E_6)(-E_1-E_7-E_{11}+E_3+E_5+E_9)(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_3^-f_7^-f_8^-f_9^-f_{10}^-f_5^+ -f_1^-f_3^-f_7^-f_8^-f_{10}^-f_{11}^-f_5^+}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_7-E_{10}+E_5+E_6)(-E_3-E_5-E_9+E_1+E_7+E_{11})(-E_1-E_7-E_8+E_3+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_4^-f_5^-f_9^-f_7^+f_{10}^+ -f_1^-f_2^-f_7^-f_9^-f_{10}^-f_4^+f_5^+ +f_1^-f_2^-f_7^-f_{10}^-f_{11}^-f_4^+f_5^+ -f_2^-f_3^-f_4^-f_5^-f_{11}^-f_7^+f_{10}^+}{(-E_2-E_5+E_7+E_8)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_2-E_4-E_5+E_7+E_{10}+E_{12})}\\
\frac{+f_1^-f_7^-f_8^-f_{10}^-f_{11}^-f_4^+f_5^+ -f_1^-f_7^-f_8^-f_9^-f_{10}^-f_4^+f_5^+ +f_3^-f_4^-f_5^-f_8^-f_9^-f_7^+f_{10}^+ -f_3^-f_4^-f_5^-f_8^-f_{11}^-f_7^+f_{10}^+}{(-E_7-E_8+E_2+E_5)(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_7-E_{10}+E_5+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_8+E_{10}+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_6^-f_9^-f_7^+f_{11}^+ -f_1^-f_2^-f_6^-f_7^-f_{11}^-f_5^+f_9^+}{(-E_2-E_5+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_5-E_9+E_1+E_7+E_{11})(-E_5-E_6-E_9+E_4+E_7+E_{11})(-E_2-E_5-E_9+E_7+E_{11}+E_{12})}\\
\frac{+f_3^-f_5^-f_6^-f_8^-f_9^-f_7^+f_{11}^+ -f_1^-f_6^-f_7^-f_8^-f_{11}^-f_5^+f_9^+}{(-E_7-E_8+E_2+E_5)(-E_5-E_6+E_7+E_{10})(-E_3-E_5-E_9+E_1+E_7+E_{11})(-E_5-E_6-E_9+E_4+E_7+E_{11})(-E_8-E_9+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_7^-f_{10}^-f_{11}^-f_5^+f_9^+ -f_2^-f_3^-f_5^-f_9^-f_{10}^-f_7^+f_{11}^+}{(-E_2-E_5+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_1-E_7-E_{11}+E_3+E_5+E_9)(-E_9-E_{10}+E_4+E_{11})(-E_2-E_5-E_9+E_7+E_{11}+E_{12})}\\
\frac{+f_1^-f_7^-f_8^-f_{10}^-f_{11}^-f_5^+f_9^+ -f_3^-f_5^-f_8^-f_9^-f_{10}^-f_7^+f_{11}^+}{(-E_7-E_8+E_2+E_5)(-E_7-E_{10}+E_5+E_6)(-E_1-E_7-E_{11}+E_3+E_5+E_9)(-E_9-E_{10}+E_4+E_{11})(-E_8-E_9+E_{11}+E_{12})}\\
\frac{+f_3^-f_5^-f_6^-f_7^-f_9^-f_{12}^-f_2^+ -f_1^-f_2^-f_5^-f_6^-f_7^-f_9^-f_{12}^+ +f_1^-f_2^-f_5^-f_6^-f_7^-f_{11}^-f_{12}^+ -f_3^-f_5^-f_6^-f_7^-f_{11}^-f_{12}^-f_2^+}{(-E_2-E_5+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_6-E_{12}+E_2+E_4)(-E_2-E_5-E_9+E_7+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_7^-f_{10}^-f_{11}^-f_5^+f_{12}^+ -f_3^-f_7^-f_{10}^-f_{11}^-f_{12}^-f_2^+f_5^+ +f_3^-f_5^-f_7^-f_9^-f_{10}^-f_{12}^-f_2^+ -f_1^-f_2^-f_5^-f_7^-f_9^-f_{10}^-f_{12}^+}{(-E_2-E_5+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_1-E_2+E_3+E_{12})(-E_7-E_{10}-E_{12}+E_2+E_4+E_5)(-E_7-E_{11}-E_{12}+E_2+E_5+E_9)}\\
\frac{+f_1^-f_6^-f_7^-f_8^-f_9^-f_5^+f_{12}^+ -f_3^-f_5^-f_6^-f_9^-f_{12}^-f_7^+f_8^+ -f_1^-f_6^-f_7^-f_8^-f_{11}^-f_5^+f_{12}^+ +f_3^-f_5^-f_6^-f_{11}^-f_{12}^-f_7^+f_8^+}{(-E_7-E_8+E_2+E_5)(-E_5-E_6+E_7+E_{10})(-E_1-E_7-E_8+E_3+E_5+E_{12})(-E_5-E_6-E_{12}+E_4+E_7+E_8)(-E_8-E_9+E_{11}+E_{12})}\\
\frac{+f_3^-f_5^-f_9^-f_{10}^-f_{12}^-f_7^+f_8^+ +f_1^-f_7^-f_8^-f_{10}^-f_{11}^-f_5^+f_{12}^+ -f_1^-f_7^-f_8^-f_9^-f_{10}^-f_5^+f_{12}^+ -f_3^-f_5^-f_{10}^-f_{11}^-f_{12}^-f_7^+f_8^+}{(-E_7-E_8+E_2+E_5)(-E_7-E_{10}+E_5+E_6)(-E_3-E_5-E_{12}+E_1+E_7+E_8)(-E_{10}-E_{12}+E_4+E_8)(-E_8-E_9+E_{11}+E_{12})}\\
\frac{+f_1^-f_2^-f_3^-f_5^-f_{10}^-f_{11}^-f_8^+ -f_1^-f_2^-f_3^-f_5^-f_9^-f_{10}^-f_8^+ +f_1^-f_2^-f_3^-f_7^-f_8^-f_9^-f_{10}^- -f_1^-f_2^-f_3^-f_7^-f_{10}^-f_{11}^-f_8^+}{(-E_2-E_5+E_7+E_8)(-E_1-E_2-E_{10}+E_3+E_4+E_8)(-E_2-E_{10}+E_6+E_8)(-E_1-E_2-E_{11}+E_3+E_8+E_9)(-E_1-E_2+E_3+E_{12})}\\
\frac{+f_1^-f_2^-f_7^-f_{10}^-f_{11}^-f_4^+f_8^+ -f_3^-f_4^-f_7^-f_8^-f_{11}^-f_2^+f_{10}^+ +f_3^-f_4^-f_5^-f_8^-f_{11}^-f_2^+f_{10}^+ -f_1^-f_2^-f_7^-f_9^-f_{10}^-f_4^+f_8^+ -f_1^-f_2^-f_5^-f_{10}^-f_{11}^-f_4^+f_8^+ +f_3^-f_4^-f_7^-f_8^-f_9^-f_2^+f_{10}^+ -f_3^-f_4^-f_5^-f_8^-f_9^-f_2^+f_{10}^+ +f_1^-f_2^-f_5^-f_9^-f_{10}^-f_4^+f_8^+}{(-E_7-E_8+E_2+E_5)(-E_1-E_2-E_{10}+E_3+E_4+E_8)(-E_2-E_{10}+E_6+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_8+E_{10}+E_{12})}\\
\frac{+f_3^-f_5^-f_6^-f_8^-f_9^-f_2^+f_{11}^+ -f_3^-f_6^-f_7^-f_8^-f_9^-f_2^+f_{11}^+ -f_1^-f_2^-f_5^-f_6^-f_{11}^-f_8^+f_9^+ +f_1^-f_2^-f_6^-f_7^-f_{11}^-f_8^+f_9^+}{(-E_2-E_5+E_7+E_8)(-E_6-E_8+E_2+E_{10})(-E_3-E_8-E_9+E_1+E_2+E_{11})(-E_6-E_8-E_9+E_2+E_4+E_{11})(-E_8-E_9+E_{11}+E_{12})}
\end{array}\right)
$$

$$-\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|3,8\}\{7,8|V|7,2\}\{9,10|V|9,12\}\{11,12|V|11,6\}f_1^- f_7^- f_9^- f_{11}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2+E_8)(-E_2-E_3+E_5+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- -f_2^- f_5^- f_6^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2+E_8)(-E_6+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_4^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_4+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- -f_4^- f_5^- f_6^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_4+E_8)(-E_6+E_{10})(-E_6+E_{12})} \\
\frac{+f_2^- f_3^- f_{10}^- -f_2^- f_5^- f_{10}^-}{(-E_2+E_4)(-E_2+E_8)(-E_2-E_3+E_5+E_{10})(-E_{10}+E_6)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_{12}^- -f_2^- f_5^- f_{12}^-}{(-E_2+E_4)(-E_2+E_8)(-E_2-E_3+E_5+E_{12})(-E_{12}+E_6)(-E_{12}+E_{10})} \\
\frac{+f_4^- f_5^- f_{10}^- -f_3^- f_4^- f_{10}^-}{(-E_4+E_2)(-E_4+E_8)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_{10}+E_{12})} \\
\frac{+f_4^- f_5^- f_{12}^- -f_3^- f_4^- f_{12}^-}{(-E_4+E_2)(-E_4+E_8)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_{12}+E_{10})} \\
\frac{+f_5^- f_6^- f_3^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_3+E_8)(-E_6+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_6^- f_8^- -f_5^- f_6^- f_8^-}{(-E_8+E_2)(-E_8+E_4)(-E_3-E_8+E_5+E_6)(-E_6+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_8^- f_5^+}{(-E_8+E_2)(-E_8+E_4)(-E_3-E_8+E_5+E_6)(-E_3-E_8+E_5+E_{10})(-E_3-E_8+E_5+E_{12})} \\
\frac{+f_5^- f_8^- f_{10}^- -f_3^- f_8^- f_{10}^-}{(-E_8+E_2)(-E_8+E_4)(-E_{10}+E_6)(-E_5-E_{10}+E_3+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_8^- f_{12}^- -f_5^- f_8^- f_{12}^-}{(-E_8+E_2)(-E_8+E_4)(-E_{12}+E_6)(-E_3-E_8+E_5+E_{12})(-E_{12}+E_{10})} \\
\frac{+f_5^- f_{10}^- f_3^+}{(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_5-E_{10}+E_3+E_8)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_{12}^- f_3^+}{(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_6)(-E_5-E_{12}+E_3+E_8)(-E_{12}+E_{10})}
\end{array}\right)$$

$$-\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|3,8\}\{7,8|V|7,2\}\{9,10|V|11,6\}\{11,12|V|9,12\}f_1^- f_7^- f_{12}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_{11}^- f_5^+ -f_2^- f_3^- f_9^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_2+E_8)(-E_2-E_3+E_5+E_{10})(-E_{11}+E_9)} \\
\frac{+f_2^- f_5^- f_6^- f_9^- -f_2^- f_3^- f_6^- f_9^- +f_2^- f_3^- f_6^- f_{11}^- -f_2^- f_5^- f_6^- f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_3)(-E_2+E_8)(-E_6+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_{11}^- f_5^+ -f_3^- f_4^- f_9^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_4+E_8)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_9^- -f_4^- f_5^- f_6^- f_9^- -f_3^- f_4^- f_6^- f_{11}^- +f_4^- f_5^- f_6^- f_{11}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_4+E_8)(-E_6+E_{10})(-E_9+E_{11})} \\
\frac{+f_2^- f_3^- f_{10}^- f_{11}^- -f_2^- f_5^- f_{10}^- f_{11}^- -f_2^- f_3^- f_9^- f_{10}^- +f_2^- f_5^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2+E_8)(-E_2-E_3+E_5+E_{10})(-E_{10}+E_6)(-E_{11}+E_9)} \\
\frac{+f_4^- f_5^- f_{10}^- f_{11}^- -f_4^- f_5^- f_9^- f_{10}^- -f_3^- f_4^- f_{10}^- f_{11}^- +f_3^- f_4^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_4+E_8)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_{11}+E_9)} \\
\frac{+f_5^- f_6^- f_{11}^- f_3^+ -f_5^- f_6^- f_9^- f_3^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_3+E_8)(-E_6+E_{10})(-E_{11}+E_9)} \\
\frac{+f_5^- f_6^- f_8^- f_9^- -f_3^- f_6^- f_8^- f_9^- +f_3^- f_6^- f_8^- f_{11}^- -f_5^- f_6^- f_8^- f_{11}^-}{(-E_8+E_2)(-E_8+E_4)(-E_5-E_6+E_3+E_8)(-E_6+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_8^- f_{11}^- f_5^+ -f_3^- f_8^- f_9^- f_5^+}{(-E_8+E_2)(-E_8+E_4)(-E_3-E_8+E_5+E_6)(-E_3-E_8+E_5+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_8^- f_{10}^- f_{11}^- -f_3^- f_8^- f_9^- f_{10}^- -f_5^- f_8^- f_{10}^- f_{11}^- +f_5^- f_8^- f_9^- f_{10}^-}{(-E_8+E_2)(-E_8+E_4)(-E_{10}+E_6)(-E_3-E_8+E_5+E_{10})(-E_{11}+E_9)} \\
\frac{+f_5^- f_9^- f_{10}^- f_3^+ -f_5^- f_{10}^- f_{11}^- f_3^+}{(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_5-E_{10}+E_3+E_8)(-E_9+E_{11})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,6\}\{7,8|V|3,10\}\{9,10|V|9,2\}\{11,12|V|11,8\}f_1^- f_6^- f_9^- f_{11}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^-}{(-E_2+E_4)(-E_5+E_7)(-E_2-E_3+E_5+E_8)(-E_2+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_8^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_2+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^-}{(-E_4+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_4+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_8^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_4+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_7^-}{(-E_2+E_4)(-E_7+E_5)(-E_2-E_3+E_7+E_8)(-E_2+E_{10})(-E_2-E_3+E_7+E_{12})} \\
\frac{+f_2^- f_7^- f_8^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_2+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^-}{(-E_4+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_4+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_4^- f_7^- f_8^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_4+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_5^- f_{12}^-}{(-E_2+E_4)(-E_5+E_7)(-E_2+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_{12}+E_8)} \\
\frac{+f_2^- f_7^- f_{12}^-}{(-E_2+E_4)(-E_7+E_5)(-E_2+E_{10})(-E_7-E_{12}+E_2+E_3)(-E_{12}+E_8)} \\
\frac{+f_4^- f_5^- f_{12}^-}{(-E_4+E_2)(-E_5+E_7)(-E_4+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)} \\
\frac{+f_4^- f_7^- f_{12}^-}{(-E_4+E_2)(-E_7+E_5)(-E_4+E_{10})(-E_7-E_{12}+E_3+E_4)(-E_{12}+E_8)} \\
\frac{+f_2^- f_3^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_7+E_8)(-E_2+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_4+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_{12}^+}{(-E_2+E_4)(-E_2+E_{10})(-E_2-E_3+E_5+E_{12})(-E_2-E_3+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_3^- f_4^- f_{12}^+}{(-E_4+E_2)(-E_4+E_{10})(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_5^- f_8^- f_3^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_3+E_{10})(-E_8+E_{12})} \\
\frac{+f_7^- f_8^- f_3^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_3+E_{10})(-E_8+E_{12})} \\
\frac{+f_5^- f_8^- f_{10}^-}{(-E_5+E_7)(-E_{10}+E_2)(-E_{10}+E_4)(-E_5-E_8+E_3+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_5^- f_{10}^-}{(-E_5+E_7)(-E_{10}+E_2)(-E_{10}+E_4)(-E_3-E_{10}+E_5+E_8)(-E_3-E_{10}+E_5+E_{12})} \\
\frac{+f_7^- f_8^- f_{10}^-}{(-E_7+E_5)(-E_{10}+E_2)(-E_{10}+E_4)(-E_7-E_8+E_3+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_7^- f_{10}^-}{(-E_7+E_5)(-E_{10}+E_2)(-E_{10}+E_4)(-E_3-E_{10}+E_7+E_8)(-E_3-E_{10}+E_7+E_{12})} \\
\frac{+f_5^- f_{10}^- f_{12}^-}{(-E_5+E_7)(-E_{10}+E_2)(-E_{10}+E_4)(-E_{12}+E_8)(-E_5-E_{12}+E_3+E_{10})} \\
\frac{+f_7^- f_{10}^- f_{12}^-}{(-E_7+E_5)(-E_{10}+E_2)(-E_{10}+E_4)(-E_{12}+E_8)(-E_7-E_{12}+E_3+E_{10})} \\
\frac{+f_5^- f_{12}^- f_3^+}{(-E_5+E_7)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_5-E_{12}+E_3+E_{10})} \\
\frac{+f_7^- f_{12}^- f_3^+}{(-E_7+E_5)(-E_7-E_{12}+E_2+E_3)(-E_7-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_7-E_{12}+E_3+E_{10})} \\
\frac{+f_3^- f_{10}^- f_8^+}{(-E_{10}+E_2)(-E_{10}+E_4)(-E_3-E_{10}+E_5+E_8)(-E_3-E_{10}+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_3^- f_{10}^- f_{12}^+}{(-E_{10}+E_2)(-E_{10}+E_4)(-E_{12}+E_8)(-E_3-E_{10}+E_5+E_{12})(-E_3-E_{10}+E_7+E_{12})}
\end{array} \right)$$

$$-\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|7,10\}\{7,8|V|9,6\}\{9,10|V|3,12\}\{11,12|V|11,2\}f_1^- f_{11}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_7+E_5+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_9^+ - f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_7+E_5+E_6+E_9)(-E_2-E_3+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_8^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^+ f_9^+ - f_2^- f_3^- f_6^- f_9^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_2-E_3+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_9^- - f_2^- f_5^- f_7^- f_8^- f_9^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_6-E_9+E_7+E_8)(-E_5-E_8+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{10}^+ - f_2^- f_3^- f_5^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_2-E_3+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_{10}^+ - f_2^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_8^+ f_{10}^+ - f_2^- f_3^- f_7^- f_{10}^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_2-E_3+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_9^+ - f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_3-E_4+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_8^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^+ f_9^+ - f_3^- f_4^- f_6^- f_9^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_3-E_4+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_9^- - f_4^- f_5^- f_7^- f_8^- f_9^+}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_5-E_8+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- - f_3^- f_4^- f_5^- f_6^- f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- - f_4^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_5-E_8+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^+ f_{10}^+ - f_3^- f_4^- f_7^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_7^+}{(-E_2+E_4)(-E_5-E_6-E_9+E_2+E_3+E_7)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_6^+ f_9^+}{(-E_2+E_4)(-E_2-E_3-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_2-E_3+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_7^+}{(-E_4+E_2)(-E_5-E_6-E_9+E_3+E_4+E_7)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_6^+ f_9^+}{(-E_4+E_2)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_2+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_4+E_{12})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_3)(-E_2+E_{12})} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_3+E_4)(-E_4+E_{12})} \\
\frac{+f_2^- f_6^- f_9^- f_{10}^- f_8^+ - f_2^- f_7^- f_9^- f_{10}^- f_8^+}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_2+E_3)(-E_9-E_{10}+E_5+E_8)(-E_2+E_{12})} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_8^+ - f_4^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_8)(-E_4+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_2-E_3+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{10}^- - f_2^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_2+E_3)(-E_9-E_{10}+E_5+E_8)(-E_2+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_{10}^- - f_4^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_8)(-E_4+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_8^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_3+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_3^+ f_9^+ - f_5^- f_6^- f_8^- f_9^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_3+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_{10}^- f_3^+ - f_5^- f_6^- f_8^- f_3^+ f_{10}^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_3+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_3^+ f_7^+}{(-E_5-E_6-E_9+E_2+E_3+E_7)(-E_5-E_6-E_9+E_3+E_4+E_7)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_3+E_7+E_{12})} \\
\frac{+f_7^- f_8^- f_{10}^- f_3^+ f_6^+}{(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_7-E_8-E_{10}+E_3+E_6+E_{12})} \\
\frac{+f_7^- f_9^- f_{10}^- f_3^+ f_6^+}{(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_3)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_3+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_8^- f_{12}^-}{(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_5-E_8+E_3+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{12}^- f_7^+}{(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_5-E_6-E_9+E_3+E_7+E_{12})} \\
\frac{+f_7^- f_8^- f_{10}^- f_{12}^- f_6^+}{(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_{12}+E_2)(-E_{12}+E_4)(-E_7-E_8-E_{10}+E_3+E_6+E_{12})} \\
\frac{+f_7^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{10}+E_3+E_{12})} \\
\frac{+f_6^- f_9^- f_{10}^- f_3^+ f_8^+ - f_7^- f_9^- f_{10}^- f_3^+ f_8^+}{(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_2+E_3)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_3+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_{12}^- f_9^+ - f_5^- f_6^- f_8^- f_9^- f_{12}^-}{(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_5-E_8+E_3+E_{12})} \\
\frac{+f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_7^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_5+E_8)(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{10}+E_3+E_{12})} \\
\frac{+f_3^- f_6^- f_7^- f_{12}^- f_8^+}{(-E_7-E_8+E_6+E_9)(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_8)(-E_3-E_6-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_3^- f_7^- f_{12}^- f_8^+ f_9^+ - f_3^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_7-E_8+E_6+E_9)(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_8)(-E_3-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_7^- f_{12}^- f_6^+ f_9^+}{(-E_6-E_9+E_7+E_8)(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_7-E_{12}+E_5+E_6+E_9)(-E_3-E_{12}+E_9+E_{10})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|7,2\}\{7,8|V|3,8\}\{9,10|V|11,6\}\{11,12|V|9,12\}f_1^- f_8^- f_{12}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_{11}^- f_5^+ - f_2^- f_3^- f_9^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_3+E_7)(-E_2-E_3+E_5+E_{10})(-E_{11}+E_9)} \\ \frac{+f_2^- f_3^- f_6^- f_9^- - f_2^- f_3^- f_6^- f_{11}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_6)(-E_3+E_7)(-E_6+E_{10})(-E_9+E_{11})} \\ \frac{+f_2^- f_5^- f_6^- f_9^- - f_2^- f_5^- f_6^- f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_2+E_7)(-E_6+E_{10})(-E_9+E_{11})} \\ \frac{+f_3^- f_4^- f_{11}^- f_5^+ - f_3^- f_4^- f_9^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3+E_7)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_9)} \\ \frac{+f_3^- f_4^- f_6^- f_{11}^- - f_3^- f_4^- f_6^- f_9^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_6)(-E_3+E_7)(-E_6+E_{10})(-E_{11}+E_9)} \\ \frac{+f_4^- f_5^- f_6^- f_{11}^- - f_4^- f_5^- f_6^- f_9^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_4)(-E_5-E_6+E_4+E_7)(-E_6+E_{10})(-E_{11}+E_9)} \\ \frac{+f_2^- f_6^- f_7^- f_9^- - f_2^- f_6^- f_7^- f_{11}^-}{(-E_2+E_4)(-E_7+E_3)(-E_2-E_7+E_5+E_6)(-E_6+E_{10})(-E_9+E_{11})} \\ \frac{+f_2^- f_7^- f_{11}^- f_5^+ - f_2^- f_7^- f_9^- f_5^+}{(-E_2+E_4)(-E_7+E_3)(-E_2-E_7+E_5+E_6)(-E_2-E_7+E_5+E_{10})(-E_{11}+E_9)} \\ \frac{+f_4^- f_6^- f_7^- f_{11}^- - f_4^- f_6^- f_7^- f_9^-}{(-E_4+E_2)(-E_7+E_3)(-E_4-E_7+E_5+E_6)(-E_6+E_{10})(-E_{11}+E_9)} \\ \frac{+f_4^- f_7^- f_{11}^- f_5^+ - f_4^- f_7^- f_9^- f_5^+}{(-E_4+E_2)(-E_7+E_3)(-E_4-E_7+E_5+E_6)(-E_4-E_7+E_5+E_{10})(-E_{11}+E_9)} \\ \frac{+f_2^- f_3^- f_{10}^- f_{11}^- - f_2^- f_3^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_3+E_7)(-E_2-E_3+E_5+E_{10})(-E_{10}+E_6)(-E_{11}+E_9)} \\ \frac{+f_3^- f_4^- f_{10}^- f_{11}^- - f_3^- f_4^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_3+E_7)(-E_3-E_4+E_5+E_{10})(-E_{10}+E_6)(-E_{11}+E_9)} \\ \frac{+f_2^- f_7^- f_{10}^- f_{11}^- - f_2^- f_7^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_7+E_3)(-E_{10}+E_6)(-E_2-E_7+E_5+E_{10})(-E_{11}+E_9)} \\ \frac{+f_4^- f_7^- f_{10}^- f_{11}^- - f_4^- f_7^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_7+E_3)(-E_{10}+E_6)(-E_4-E_7+E_5+E_{10})(-E_{11}+E_9)} \\ \frac{+f_2^- f_5^- f_{10}^- f_{11}^- - f_2^- f_5^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_{10}+E_6)(-E_5-E_{10}+E_2+E_7)(-E_{11}+E_9)} \\ \frac{+f_4^- f_5^- f_{10}^- f_{11}^- - f_4^- f_5^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_5-E_{10}+E_4+E_7)(-E_{11}+E_9)} \\ \frac{+f_5^- f_6^- f_{11}^- f_3^+ - f_5^- f_6^- f_9^- f_3^+}{(-E_5-E_6+E_2+E_3)(-E_5-E_6+E_3+E_4)(-E_3+E_7)(-E_6+E_{10})(-E_{11}+E_9)} \\ \frac{+f_5^- f_6^- f_9^- f_7^+ - f_5^- f_6^- f_{11}^- f_7^+}{(-E_7+E_3)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_6+E_{10})(-E_9+E_{11})} \\ \frac{+f_5^- f_9^- f_{10}^- f_3^+ - f_5^- f_{10}^- f_{11}^- f_3^+}{(-E_3+E_7)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_{10}+E_6)(-E_9+E_{11})} \\ \frac{+f_5^- f_9^- f_{10}^- f_7^+ - f_5^- f_{10}^- f_{11}^- f_7^+}{(-E_7+E_3)(-E_{10}+E_6)(-E_5-E_{10}+E_2+E_7)(-E_5-E_{10}+E_4+E_7)(-E_9+E_{11})} \end{pmatrix}$$

$$-\frac{1}{8}\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,6\}\{7,8|V|9,2\}\{9,10|V|3,10\}\{11,12|V|11,8\}f_1^-f_6^-f_{10}^-f_{11}^-\begin{pmatrix}
\frac{+f_2^-f_3^-f_5^-}{(-E_2+E_4)(-E_5+E_7)(-E_2-E_3+E_5+E_8)(-E_3+E_9)(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^-f_5^-f_8^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_2+E_9)(-E_8+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-}{(-E_4+E_2)(-E_5+E_7)(-E_3-E_4+E_5+E_8)(-E_3+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_4^-f_5^-f_8^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_4+E_9)(-E_8+E_{12})} \\
\frac{+f_2^-f_3^-f_7^-}{(-E_2+E_4)(-E_7+E_5)(-E_2-E_3+E_7+E_8)(-E_3+E_9)(-E_2-E_3+E_7+E_{12})} \\
\frac{+f_2^-f_7^-f_8^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_7-E_8+E_2+E_9)(-E_8+E_{12})} \\
\frac{+f_3^-f_4^-f_7^-}{(-E_4+E_2)(-E_7+E_5)(-E_3-E_4+E_7+E_8)(-E_3+E_9)(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_4^-f_7^-f_8^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8+E_3+E_4)(-E_7-E_8+E_4+E_9)(-E_8+E_{12})} \\
\frac{+f_2^-f_5^-f_9^-}{(-E_2+E_4)(-E_5+E_7)(-E_9+E_3)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_5+E_{12})} \\
\frac{+f_4^-f_5^-f_9^-}{(-E_4+E_2)(-E_5+E_7)(-E_9+E_3)(-E_4-E_9+E_5+E_8)(-E_4-E_9+E_5+E_{12})} \\
\frac{+f_2^-f_7^-f_9^-}{(-E_2+E_4)(-E_7+E_5)(-E_9+E_3)(-E_2-E_9+E_7+E_8)(-E_2-E_9+E_7+E_{12})} \\
\frac{+f_4^-f_7^-f_9^-}{(-E_4+E_2)(-E_7+E_5)(-E_9+E_3)(-E_4-E_9+E_7+E_8)(-E_4-E_9+E_7+E_{12})} \\
\frac{+f_2^-f_5^-f_{12}^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_{12}+E_2+E_3)(-E_{12}+E_8)(-E_5-E_{12}+E_2+E_9)} \\
\frac{+f_4^-f_5^-f_{12}^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_5-E_{12}+E_4+E_9)} \\
\frac{+f_2^-f_7^-f_{12}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_{12}+E_2+E_3)(-E_{12}+E_8)(-E_7-E_{12}+E_2+E_9)} \\
\frac{+f_4^-f_7^-f_{12}^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_7-E_{12}+E_4+E_9)} \\
\frac{+f_2^-f_3^-f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3+E_7+E_8)(-E_3+E_9)(-E_8+E_{12})} \\
\frac{+f_3^-f_4^-f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4+E_7+E_8)(-E_3+E_9)(-E_8+E_{12})} \\
\frac{+f_2^-f_9^-f_8^+}{(-E_2+E_4)(-E_9+E_3)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_4^-f_9^-f_8^+}{(-E_4+E_2)(-E_9+E_3)(-E_4-E_9+E_5+E_8)(-E_4-E_9+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_2^-f_3^-f_{12}^+}{(-E_2+E_4)(-E_3+E_9)(-E_2-E_3+E_5+E_{12})(-E_2-E_3+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_3^-f_4^-f_{12}^+}{(-E_4+E_2)(-E_3+E_9)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_2^-f_9^-f_{12}^+}{(-E_2+E_4)(-E_9+E_3)(-E_{12}+E_8)(-E_2-E_9+E_5+E_{12})(-E_2-E_9+E_7+E_{12})} \\
\frac{+f_4^-f_9^-f_{12}^+}{(-E_4+E_2)(-E_9+E_3)(-E_{12}+E_8)(-E_4-E_9+E_5+E_{12})(-E_4-E_9+E_7+E_{12})} \\
\frac{+f_5^-f_8^-f_3^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_3+E_9)(-E_8+E_{12})} \\
\frac{+f_7^-f_8^-f_3^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_3)(-E_7-E_8+E_3+E_4)(-E_3+E_9)(-E_8+E_{12})} \\
\frac{+f_5^-f_8^-f_9^+}{(-E_5+E_7)(-E_9+E_3)(-E_5-E_8+E_2+E_9)(-E_5-E_8+E_4+E_9)(-E_8+E_{12})} \\
\frac{+f_7^-f_8^-f_9^+}{(-E_7+E_5)(-E_9+E_3)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_8+E_{12})} \\
\frac{+f_5^-f_{12}^-f_3^+}{(-E_5+E_7)(-E_3+E_9)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)} \\
\frac{+f_7^-f_{12}^-f_3^+}{(-E_7+E_5)(-E_3+E_9)(-E_7-E_{12}+E_2+E_3)(-E_7-E_{12}+E_3+E_4)(-E_{12}+E_8)} \\
\frac{+f_5^-f_{12}^-f_9^+}{(-E_5+E_7)(-E_9+E_3)(-E_{12}+E_8)(-E_5-E_{12}+E_2+E_9)(-E_5-E_{12}+E_4+E_9)} \\
\frac{+f_7^-f_{12}^-f_9^+}{(-E_7+E_5)(-E_9+E_3)(-E_{12}+E_8)(-E_7-E_{12}+E_2+E_9)(-E_7-E_{12}+E_4+E_9)}
\end{pmatrix}$$

$$
-\frac{1}{4}\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|7,10\}\{7,8|V|9,6\}\{9,10|V|11,2\}\{11,12|V|3,12\}f_1^- f_{12}^-
\left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_7+E_5+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_3+E_{11})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_9^+ - f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_7+E_5+E_6+E_9)(-E_2-E_3+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_8^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_2+E_{11})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_3+E_{11})} \\
\frac{+f_2^- f_3^- f_7^- f_8^+ f_9^+ - f_2^- f_3^- f_6^- f_9^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_2-E_3+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_9^+ - f_2^- f_5^- f_6^- f_8^- f_9^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_2+E_{11})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{10}^+ - f_2^- f_3^- f_5^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_2-E_3+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- - f_2^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_{10}+E_5+E_6)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_2+E_{11})} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_8^+ - f_2^- f_3^- f_6^- f_8^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_2-E_3+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_3+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_9^+ - f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_3-E_4+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_8^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_4+E_{11})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_8^+ f_9^+ - f_3^- f_4^- f_6^- f_9^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_3-E_4+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_9^+ - f_4^- f_5^- f_6^- f_8^- f_9^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_4+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- - f_3^- f_4^- f_5^- f_6^- f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- - f_4^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_4+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_8^+ - f_3^- f_4^- f_6^- f_8^+ f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_3-E_4+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_7^+}{(-E_2+E_4)(-E_5-E_6-E_9+E_2+E_3+E_7)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_2+E_7+E_{11})} \\
\frac{+f_2^- f_3^- f_7^- f_6^+ f_9^+}{(-E_2+E_4)(-E_2-E_3-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_2-E_3+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_7^+}{(-E_4+E_2)(-E_5-E_6-E_9+E_3+E_4+E_7)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_4+E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_6^+ f_9^+}{(-E_4+E_2)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_2^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})} \\
\frac{+f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_7-E_8-E_{10}+E_4+E_6+E_{11})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_3)(-E_9-E_{10}+E_2+E_{11})} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_4+E_{11})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_8^+ - f_2^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_2+E_3)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})} \\
\frac{+f_4^- f_6^- f_9^- f_{10}^- f_8^+ - f_4^- f_7^- f_9^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_4+E_{11})} \\
\frac{+f_2^- f_6^- f_7^- f_{11}^- f_8^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_{11}+E_3)(-E_2-E_{11}+E_5+E_8)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})} \\
\frac{+f_2^- f_7^- f_{11}^- f_8^+ f_9^+ - f_2^- f_6^- f_9^- f_{11}^- f_8^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_{11}+E_3)(-E_2-E_{11}+E_5+E_8)(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_4^- f_6^- f_7^- f_{11}^- f_8^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_{11}+E_3)(-E_4-E_{11}+E_5+E_8)(-E_4-E_6-E_{11}+E_7+E_8+E_{10})} \\
\frac{+f_4^- f_7^- f_{11}^- f_8^+ f_9^+ - f_4^- f_6^- f_9^- f_{11}^- f_8^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_{11}+E_3)(-E_4-E_{11}+E_5+E_8)(-E_4-E_{11}+E_9+E_{10})} \\
\frac{+f_2^- f_7^- f_{11}^- f_6^+ f_9^+}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_{11}+E_3)(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_4^- f_7^- f_{11}^- f_6^+ f_9^+}{(-E_4+E_2)(-E_6-E_9+E_7+E_8)(-E_{11}+E_3)(-E_4-E_7-E_{11}+E_5+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_2-E_3+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_4+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{10}^- - f_2^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_2+E_3)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_{10}^- - f_4^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_3+E_4)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_4+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_{11}+E_3)(-E_2-E_{11}+E_5+E_8)(-E_2-E_7-E_{11}+E_5+E_6+E_9)} \\
\frac{+f_2^- f_5^- f_7^- f_{10}^- f_{11}^- - f_2^- f_5^- f_6^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_{11}+E_3)(-E_2-E_{11}+E_5+E_8)(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_{11}^-}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_{11}+E_3)(-E_4-E_{11}+E_5+E_8)(-E_4-E_7-E_{11}+E_5+E_6+E_9)} \\
\frac{+f_4^- f_5^- f_6^- f_{11}^- f_{10}^+ - f_4^- f_5^- f_7^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_{11}+E_3)(-E_4-E_{11}+E_5+E_8)(-E_4-E_{11}+E_9+E_{10})} \\
\frac{+f_2^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_{11}+E_3)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_4^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_{11}+E_3)(-E_4-E_6-E_{11}+E_7+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})} \\
\frac{+f_2^- f_5^- f_7^- f_{11}^- f_9^+ - f_2^- f_5^- f_6^- f_9^- f_{11}^-}{(-E_2+E_4)(-E_{11}+E_3)(-E_2-E_{11}+E_5+E_8)(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_2^- f_7^- f_{10}^- f_{11}^- f_8^+ - f_2^- f_6^- f_{11}^- f_8^+ f_{10}^+}{(-E_2+E_4)(-E_{11}+E_3)(-E_2-E_{11}+E_5+E_8)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_2-E_{11}+E_9+E_{10})} \\
\frac{+f_4^- f_5^- f_7^- f_{11}^- f_9^+ - f_4^- f_5^- f_6^- f_9^- f_{11}^-}{(-E_4+E_2)(-E_{11}+E_3)(-E_4-E_{11}+E_5+E_8)(-E_4-E_7-E_{11}+E_5+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})} \\
\frac{+f_4^- f_7^- f_{10}^- f_{11}^- f_8^+ - f_4^- f_6^- f_{11}^- f_8^+ f_{10}^+}{(-E_4+E_2)(-E_{11}+E_3)(-E_4-E_{11}+E_5+E_8)(-E_7-E_8-E_{10}+E_4+E_6+E_{11})(-E_4-E_{11}+E_9+E_{10})}
\end{array}\right.
$$

$$-\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,2\}\{5,6|V|7,10\}\{7,8|V|3,6\}\{9,10|V|11,8\}\{11,12|V|9,12\}f_1^- f_{12}^- \left(\begin{array}{r}
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_7^+ - f_2^- f_3^- f_6^- f_{11}^- f_7^+ - f_3^- f_4^- f_6^- f_9^- f_7^+ + f_2^- f_3^- f_6^- f_9^- f_7^+}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_6+E_7+E_8)(-E_3-E_6+E_7+E_{10})(-E_{11}+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- + f_2^- f_3^- f_6^- f_8^- f_{11}^- - f_3^- f_4^- f_7^- f_8^- f_9^- - f_2^- f_3^- f_7^- f_8^- f_{11}^- + f_2^- f_3^- f_7^- f_8^- f_9^- - f_3^- f_4^- f_6^- f_8^- f_{11}^- + f_3^- f_4^- f_6^- f_8^- f_9^- - f_2^- f_3^- f_6^- f_8^- f_9^-}{(-E_4+E_2)(-E_3+E_5)(-E_7-E_8+E_3+E_6)(-E_8+E_{10})(-E_{11}+E_9)} \\
\frac{+f_4^- f_5^- f_6^- f_{11}^- f_7^+ - f_2^- f_5^- f_6^- f_{11}^- f_7^+ + f_2^- f_5^- f_6^- f_9^- f_7^+ - f_4^- f_5^- f_6^- f_9^- f_7^+}{(-E_4+E_2)(-E_5+E_3)(-E_5-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_{11}+E_9)} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_9^- - f_4^- f_5^- f_7^- f_8^- f_9^- + f_4^- f_5^- f_7^- f_8^- f_{11}^- - f_2^- f_5^- f_7^- f_8^- f_{11}^- + f_2^- f_5^- f_7^- f_8^- f_9^- - f_4^- f_5^- f_6^- f_8^- f_{11}^- - f_2^- f_5^- f_6^- f_8^- f_9^- + f_2^- f_5^- f_6^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_5+E_3)(-E_5-E_6+E_7+E_8)(-E_8+E_{10})(-E_9+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- + f_3^- f_4^- f_6^- f_{10}^- f_{11}^- - f_2^- f_3^- f_6^- f_{10}^- f_{11}^- - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- - f_2^- f_3^- f_7^- f_9^- f_{10}^- + f_2^- f_3^- f_7^- f_{10}^- f_{11}^- - f_3^- f_4^- f_6^- f_9^- f_{10}^- + f_2^- f_3^- f_6^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_3+E_5)(-E_7-E_{10}+E_3+E_6)(-E_{10}+E_8)(-E_9+E_{11})} \\
\frac{+f_2^- f_5^- f_7^- f_9^- f_{10}^- + f_2^- f_5^- f_6^- f_{10}^- f_{11}^- - f_2^- f_5^- f_7^- f_{10}^- f_{11}^- - f_4^- f_5^- f_7^- f_9^- f_{10}^- + f_4^- f_5^- f_6^- f_9^- f_{10}^- + f_4^- f_5^- f_7^- f_{10}^- f_{11}^- - f_4^- f_5^- f_6^- f_{10}^- f_{11}^- - f_2^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5+E_3)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_9+E_{11})} \\
\frac{+f_4^- f_7^- f_8^- f_9^- f_6^+ - f_4^- f_7^- f_8^- f_{11}^- f_6^+ - f_2^- f_7^- f_8^- f_9^- f_6^+ + f_2^- f_7^- f_8^- f_{11}^- f_6^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_5+E_6)(-E_8+E_{10})(-E_9+E_{11})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_6^+ - f_4^- f_7^- f_9^- f_{10}^- f_6^+ - f_2^- f_7^- f_{10}^- f_{11}^- f_6^+ + f_4^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_2+E_4)(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_9+E_{11})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,2\}\{5,6|V|7,10\}\{7,8|V|9,12\}\{9,10|V|11,8\}\{11,12|V|3,6\}f_1^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_9^- - f_3^- f_4^- f_6^- f_7^- f_8^- f_9^-}{(-E_2+E_4)(-E_3+E_5)(-E_3-E_6+E_7+E_{10})(-E_3-E_6-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^- - f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- + f_3^- f_4^- f_6^- f_7^- f_9^- f_{11}^+ - f_2^- f_3^- f_6^- f_7^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_3+E_5)(-E_3-E_6+E_7+E_{10})(-E_7-E_8-E_{11}+E_3+E_6+E_9)(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- - f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_3+E_5)(-E_7-E_{10}+E_3+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_8^- f_9^- f_{10}^+ - f_3^- f_4^- f_6^- f_8^- f_9^- f_{10}^+}{(-E_2+E_4)(-E_3+E_5)(-E_3-E_6+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_3-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{10}^+ - f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^+ f_{11}^+ + f_2^- f_3^- f_6^- f_9^- f_{10}^+ f_{11}^+}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_6+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- + f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_3+E_5)(-E_7-E_{10}+E_3+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^- - f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^- + f_3^- f_4^- f_6^- f_7^- f_8^- f_{12}^+ - f_2^- f_3^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_2+E_4)(-E_3+E_5)(-E_3-E_6+E_7+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- + f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_3+E_5)(-E_7-E_{10}+E_3+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_6^- f_8^- f_{10}^+ f_{12}^+ - f_2^- f_3^- f_6^- f_9^- f_{12}^- f_{10}^+ + f_2^- f_3^- f_6^- f_8^- f_{10}^+ f_{12}^+}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_6+E_7+E_{10})(-E_9-E_{10}-E_{12}+E_3+E_6+E_8)(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_8^- f_9^- - f_2^- f_5^- f_6^- f_7^- f_8^- f_9^-}{(-E_4+E_2)(-E_5+E_3)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_8^- f_{11}^- - f_4^- f_5^- f_6^- f_7^- f_8^- f_{11}^- - f_2^- f_5^- f_6^- f_7^- f_9^- f_{11}^+ + f_4^- f_5^- f_6^- f_7^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_5+E_3)(-E_5-E_6+E_7+E_{10})(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^- - f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5+E_3)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_9^- f_{10}^+ - f_2^- f_5^- f_6^- f_8^- f_9^- f_{10}^+}{(-E_4+E_2)(-E_5+E_3)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_{10}^+ f_{11}^+ - f_2^- f_5^- f_6^- f_9^- f_{10}^+ f_{11}^+ + f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+ - f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_5+E_3)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- - f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- + f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_5+E_3)(-E_7-E_{10}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_8^- f_{12}^+ - f_2^- f_5^- f_6^- f_7^- f_9^- f_{12}^- + f_4^- f_5^- f_6^- f_7^- f_9^- f_{12}^- - f_4^- f_5^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_2+E_4)(-E_5+E_3)(-E_5-E_6+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ + f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- - f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_5+E_3)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{12}^- f_{10}^+ - f_2^- f_5^- f_6^- f_8^- f_{10}^+ f_{12}^+ + f_4^- f_5^- f_6^- f_8^- f_{10}^+ f_{12}^+ - f_4^- f_5^- f_6^- f_9^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_5+E_3)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+ - f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_3+E_5)(-E_7-E_8-E_{11}+E_3+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_8^+ f_{11}^+ - f_2^- f_3^- f_6^- f_9^- f_8^+ f_{11}^+}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_6-E_9+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ - f_4^- f_5^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_5+E_3)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_8^+ f_{11}^+ - f_4^- f_5^- f_6^- f_9^- f_8^+ f_{11}^+}{(-E_2+E_4)(-E_5+E_3)(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_3+E_5)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_3+E_6+E_8)} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_5+E_3)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)} \\
\frac{+f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_3+E_5)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_3+E_6)} \\
\frac{+f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_8^+ - f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_5+E_3)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_5+E_6)} \\
\frac{+f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_3+E_5)(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_3+E_6)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_{10}^+ - f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_5+E_3)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{12}^- f_8^+ - f_2^- f_3^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_3+E_5)(-E_9-E_{12}+E_7+E_8)(-E_3-E_6-E_8+E_9+E_{10}+E_{12})(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ - f_2^- f_5^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_5+E_3)(-E_9-E_{12}+E_7+E_8)(-E_5-E_6-E_8+E_9+E_{10}+E_{12})(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_3^- f_7^- f_9^- f_{11}^- f_{12}^- + f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_3+E_5)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_6)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- + f_2^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- - f_4^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_5+E_3)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ - f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+ - f_2^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+ - f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ + f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+}{(-E_4+E_2)(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+ - f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_2^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+}{(-E_4+E_2)(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+ - f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_2+E_4)(-E_7-E_8-E_{11}+E_3+E_6+E_9)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+ - f_4^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+}{(-E_2+E_4)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_3+E_6+E_8)(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)} \\
\frac{+f_4^- f_9^- f_{11}^- f_{12}^- f_6^+ f_8^+ - f_2^- f_9^- f_{11}^- f_{12}^- f_6^+ f_8^+}{(-E_4+E_2)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_3+E_6)(-E_{11}-E_{12}+E_5+E_6)} \\
\frac{+f_2^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ + f_4^- f_9^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ - f_2^- f_9^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ - f_4^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+}{(-E_2+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_6)(-E_{11}-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ + f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_3+E_6)(-E_{11}-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_7+E_{10})}
\end{array}\right)$$

$$-\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|3,8\}\{7,8|V|9,12\}\{9,10|V|7,2\}\{11,12|V|11,6\}f_1^-f_{11}^-\begin{pmatrix}
\frac{+f_2^-f_3^-f_5^-f_6^-f_7^- -f_2^-f_3^-f_5^-f_6^-f_9^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_5-E_7+E_3+E_9)(-E_2-E_3+E_5+E_{10})(-E_6+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_7^-f_8^- -f_2^-f_3^-f_8^-f_9^-f_5^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_5-E_7+E_3+E_9)(-E_2-E_3+E_5+E_{10})(-E_3-E_8+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_7^- -f_3^-f_4^-f_5^-f_6^-f_9^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_5-E_7+E_3+E_9)(-E_3-E_4+E_5+E_{10})(-E_6+E_{12})}\\
\frac{+f_3^-f_4^-f_8^-f_9^-f_5^+ -f_3^-f_4^-f_5^-f_7^-f_8^-}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_3-E_9+E_5+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_8+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_6^-f_8^-f_9^- -f_2^-f_3^-f_7^-f_8^-f_6^+ -f_2^-f_5^-f_6^-f_9^-f_8^+ +f_2^-f_5^-f_6^-f_7^-f_8^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_2-E_6+E_8+E_{10})(-E_6+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_6^+ +f_4^-f_5^-f_6^-f_9^-f_8^+ -f_3^-f_4^-f_6^-f_8^-f_9^- -f_4^-f_5^-f_6^-f_7^-f_8^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_4-E_6+E_8+E_{10})(-E_6+E_{12})}\\
\frac{+f_2^-f_3^-f_6^-f_9^-f_7^+ -f_2^-f_5^-f_6^-f_7^-f_9^+}{(-E_2+E_4)(-E_3-E_9+E_5+E_7)(-E_6-E_9+E_7+E_8)(-E_2-E_7+E_9+E_{10})(-E_6+E_{12})}\\
\frac{+f_2^-f_5^-f_7^-f_8^-f_9^+ -f_2^-f_3^-f_7^-f_8^-f_9^-}{(-E_2+E_4)(-E_5-E_7+E_3+E_9)(-E_7-E_8+E_6+E_9)(-E_2-E_7+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_9^-f_7^+ -f_4^-f_5^-f_6^-f_7^-f_9^+}{(-E_4+E_2)(-E_3-E_9+E_5+E_7)(-E_6-E_9+E_7+E_8)(-E_4-E_7+E_9+E_{10})(-E_6+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_9^- -f_4^-f_5^-f_7^-f_8^-f_9^+}{(-E_4+E_2)(-E_3-E_9+E_5+E_7)(-E_7-E_8+E_6+E_9)(-E_4-E_7+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_9^-f_{12}^- -f_2^-f_3^-f_5^-f_7^-f_{12}^-}{(-E_2+E_4)(-E_3-E_9+E_5+E_7)(-E_2-E_3+E_5+E_{10})(-E_{12}+E_6)(-E_5-E_{12}+E_3+E_8)}\\
\frac{+f_3^-f_4^-f_5^-f_7^-f_{12}^- -f_3^-f_4^-f_5^-f_9^-f_{12}^-}{(-E_4+E_2)(-E_5-E_7+E_3+E_9)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_6)(-E_5-E_{12}+E_3+E_8)}\\
\frac{+f_2^-f_5^-f_7^-f_{12}^-f_9^+ -f_2^-f_3^-f_9^-f_{12}^-f_7^+}{(-E_2+E_4)(-E_5-E_7+E_3+E_9)(-E_2-E_7+E_9+E_{10})(-E_{12}+E_6)(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_4^-f_5^-f_7^-f_{12}^-f_9^+ -f_3^-f_4^-f_9^-f_{12}^-f_7^+}{(-E_4+E_2)(-E_5-E_7+E_3+E_9)(-E_4-E_7+E_9+E_{10})(-E_{12}+E_6)(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_2^-f_3^-f_6^-f_9^-f_{10}^+ -f_5^-f_6^-f_9^-f_{10}^-f_2^+ +f_2^-f_5^-f_6^-f_7^-f_{10}^- -f_2^-f_3^-f_6^-f_7^-f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_9-E_{10}+E_2+E_7)(-E_6+E_{12})}\\
\frac{+f_5^-f_8^-f_9^-f_{10}^-f_2^+ -f_2^-f_3^-f_8^-f_9^-f_{10}^- -f_5^-f_7^-f_8^-f_{10}^-f_2^+ +f_2^-f_3^-f_7^-f_8^-f_{10}^+}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_8-E_{10}+E_2+E_6)(-E_9-E_{10}+E_2+E_7)(-E_8-E_{10}+E_2+E_{12})}\\
\frac{+f_2^-f_3^-f_7^-f_{12}^-f_{10}^+ -f_2^-f_5^-f_7^-f_{10}^-f_{12}^- -f_2^-f_3^-f_9^-f_{12}^-f_{10}^+ +f_5^-f_9^-f_{10}^-f_{12}^-f_2^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_7+E_9+E_{10})(-E_{12}+E_6)(-E_2-E_{12}+E_8+E_{10})}\\
\frac{+f_4^-f_5^-f_6^-f_7^-f_{10}^- +f_3^-f_4^-f_6^-f_9^-f_{10}^+ -f_5^-f_6^-f_9^-f_{10}^-f_4^+ -f_3^-f_4^-f_6^-f_7^-f_{10}^+}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_4-E_6+E_8+E_{10})(-E_4-E_7+E_9+E_{10})(-E_6+E_{12})}\\
\frac{+f_5^-f_8^-f_9^-f_{10}^-f_4^+ +f_3^-f_4^-f_7^-f_8^-f_{10}^+ -f_5^-f_7^-f_8^-f_{10}^-f_4^+ -f_3^-f_4^-f_8^-f_9^-f_{10}^-}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_8-E_{10}+E_4+E_6)(-E_9-E_{10}+E_4+E_7)(-E_8-E_{10}+E_4+E_{12})}\\
\frac{+f_5^-f_9^-f_{10}^-f_{12}^-f_4^+ +f_3^-f_4^-f_7^-f_{12}^-f_{10}^+ -f_3^-f_4^-f_9^-f_{12}^-f_{10}^+ -f_4^-f_5^-f_7^-f_{10}^-f_{12}^-}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_4+E_7)(-E_{12}+E_6)(-E_4-E_{12}+E_8+E_{10})}\\
\frac{+f_2^-f_3^-f_7^-f_8^-f_{12}^+ -f_2^-f_5^-f_7^-f_{12}^-f_8^+ -f_2^-f_3^-f_8^-f_9^-f_{12}^- +f_2^-f_5^-f_9^-f_{12}^-f_8^+}{(-E_2+E_4)(-E_{12}+E_6)(-E_3-E_8+E_5+E_{12})(-E_7-E_8+E_9+E_{12})(-E_2-E_{12}+E_8+E_{10})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{12}^+ -f_4^-f_5^-f_7^-f_{12}^-f_8^+ -f_3^-f_4^-f_8^-f_9^-f_{12}^- +f_4^-f_5^-f_9^-f_{12}^-f_8^+}{(-E_4+E_2)(-E_{12}+E_6)(-E_3-E_8+E_5+E_{12})(-E_7-E_8+E_9+E_{12})(-E_4-E_{12}+E_8+E_{10})}\\
\frac{+f_5^-f_6^-f_7^-f_{10}^-f_3^+ -f_3^-f_5^-f_6^-f_9^-f_{10}^-}{(-E_5-E_6+E_3+E_8)(-E_5-E_7+E_3+E_9)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_6+E_{12})}\\
\frac{+f_3^-f_5^-f_7^-f_8^-f_{10}^- -f_3^-f_5^-f_8^-f_9^-f_{10}^-}{(-E_3-E_8+E_5+E_6)(-E_5-E_7+E_3+E_9)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_3-E_8+E_5+E_{12})}\\
\frac{+f_3^-f_7^-f_8^-f_{10}^-f_6^+ -f_3^-f_8^-f_9^-f_{10}^-f_6^+ -f_5^-f_6^-f_7^-f_8^-f_{10}^- +f_5^-f_6^-f_9^-f_{10}^-f_8^+}{(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_6+E_9)(-E_8-E_{10}+E_2+E_6)(-E_8-E_{10}+E_4+E_6)(-E_6+E_{12})}\\
\frac{+f_3^-f_6^-f_9^-f_{10}^-f_7^+ -f_5^-f_6^-f_7^-f_9^-f_{10}^-}{(-E_3-E_9+E_5+E_7)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_4+E_7)(-E_6+E_{12})}\\
\frac{+f_3^-f_8^-f_9^-f_{10}^-f_7^+ -f_5^-f_7^-f_8^-f_{10}^-f_9^+}{(-E_3-E_9+E_5+E_7)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_4+E_7)(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_5^-f_7^-f_{10}^-f_{12}^-f_3^+ -f_3^-f_5^-f_9^-f_{10}^-f_{12}^-}{(-E_5-E_7+E_3+E_9)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_6)(-E_5-E_{12}+E_3+E_8)}\\
\frac{+f_3^-f_9^-f_{10}^-f_{12}^-f_7^+ -f_5^-f_7^-f_9^-f_{10}^-f_{12}^-}{(-E_3-E_9+E_5+E_7)(-E_9-E_{10}+E_2+E_7)(-E_9-E_{10}+E_4+E_7)(-E_{12}+E_6)(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_3^-f_8^-f_9^-f_{10}^-f_{12}^+ -f_5^-f_9^-f_{10}^-f_{12}^-f_8^+ -f_3^-f_7^-f_8^-f_{10}^-f_{12}^+ +f_5^-f_7^-f_8^-f_{10}^-f_{12}^-}{(-E_{12}+E_6)(-E_3-E_8+E_5+E_{12})(-E_9-E_{12}+E_7+E_8)(-E_8-E_{10}+E_2+E_{12})(-E_8-E_{10}+E_4+E_{12})}
\end{pmatrix}$$

$$-\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,6\}\{7,8|V|3,10\}\{9,10|V|11,8\}\{11,12|V|9,2\}f_1^- f_6^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_8^- f_9^- +f_2^- f_3^- f_{10}^- f_{11}^- f_5^+ -f_2^- f_3^- f_5^- f_8^- f_{11}^- -f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_5-E_9+E_3+E_{11})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- -f_3^- f_4^- f_5^- f_8^- f_{11}^- -f_3^- f_4^- f_5^- f_9^- f_{10}^- +f_3^- f_4^- f_{10}^- f_{11}^- f_5^+}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_5-E_9+E_3+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_{11}^- f_{10}^+ -f_2^- f_5^- f_8^- f_9^- f_{10}^+}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_4^- f_5^- f_8^- f_{11}^- f_{10}^+ -f_4^- f_5^- f_8^- f_9^- f_{10}^+}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_4-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_9^- +f_2^- f_3^- f_{10}^- f_{11}^- f_7^+ -f_2^- f_3^- f_7^- f_8^- f_{11}^- -f_2^- f_3^- f_7^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_3+E_{10})(-E_7-E_9+E_3+E_{11})(-E_2-E_3+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- -f_3^- f_4^- f_{10}^- f_{11}^- f_7^+ -f_3^- f_4^- f_7^- f_8^- f_9^- +f_3^- f_4^- f_7^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_7+E_5)(-E_3-E_{10}+E_7+E_8)(-E_7-E_9+E_3+E_{11})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{10}^+ -f_2^- f_7^- f_8^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_3+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_9^- f_{10}^+ -f_4^- f_7^- f_8^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8+E_3+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_4-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{11}^+ -f_2^- f_5^- f_8^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_9+E_3+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_9^- f_{10}^- f_{11}^+ -f_4^- f_5^- f_8^- f_9^- f_{11}^+}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_9+E_3+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{11}^+ -f_2^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_9+E_3+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_{11}^+ -f_4^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_9+E_3+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_9^- f_{12}^- -f_5^- f_9^- f_{10}^- f_{12}^- f_2^+ +f_5^- f_{10}^- f_{11}^- f_{12}^- f_2^+ -f_5^- f_8^- f_{11}^- f_{12}^- f_2^+}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_{12}+E_2+E_3)(-E_2-E_8+E_{10}+E_{12})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_8^- f_9^- f_{12}^- +f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+ -f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_5^- f_8^- f_{11}^- f_{12}^- f_4^+}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_{12}+E_3+E_4)(-E_4-E_8+E_{10}+E_{12})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ -f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ +f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ -f_2^- f_7^- f_8^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_{12}+E_2+E_3)(-E_{10}-E_{12}+E_2+E_8)(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ -f_4^- f_7^- f_8^- f_9^- f_{12}^- +f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_{12}+E_3+E_4)(-E_4-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_4+E_9)} \\
\frac{+f_2^- f_3^- f_8^- f_{10}^- f_{11}^- -f_2^- f_3^- f_9^- f_{10}^- f_8^+}{(-E_2+E_4)(-E_3-E_{10}+E_5+E_8)(-E_3-E_{10}+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_{10}^- f_{11}^- -f_3^- f_4^- f_9^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_3-E_{10}+E_5+E_8)(-E_3-E_{10}+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_4-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_{11}^- -f_2^- f_3^- f_8^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_3-E_{11}+E_5+E_9)(-E_3-E_{11}+E_7+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_9^+ -f_3^- f_4^- f_9^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_3-E_{11}+E_5+E_9)(-E_3-E_{11}+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_8^- f_{11}^- f_{12}^+ -f_2^- f_3^- f_8^- f_9^- f_{12}^+ +f_2^- f_3^- f_9^- f_{10}^- f_{12}^+ -f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_{12})(-E_2-E_3+E_7+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{12}^+ -f_3^- f_4^- f_9^- f_{10}^- f_{12}^+ -f_3^- f_4^- f_8^- f_{11}^- f_{12}^+ +f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_4-E_8+E_{10}+E_{12})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_8^- f_{11}^- f_{12}^- -f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- +f_3^- f_5^- f_9^- f_{10}^- f_{12}^- -f_5^- f_8^- f_9^- f_{12}^- f_3^+}{(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_3-E_{11}+E_5+E_9)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ -f_5^- f_8^- f_9^- f_{10}^- f_{12}^-}{(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_{10}-E_{12}+E_2+E_8)(-E_{10}-E_{12}+E_4+E_8)} \\
\frac{+f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- -f_3^- f_7^- f_9^- f_{10}^- f_{12}^- +f_7^- f_8^- f_9^- f_{12}^- f_3^+ -f_3^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_7+E_5)(-E_3-E_{10}+E_7+E_8)(-E_3-E_{11}+E_7+E_9)(-E_7-E_{12}+E_2+E_3)(-E_7-E_{12}+E_3+E_4)} \\
\frac{+f_7^- f_8^- f_9^- f_{10}^- f_{12}^- -f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_7+E_5)(-E_7-E_8+E_3+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_{10}-E_{12}+E_2+E_8)(-E_{10}-E_{12}+E_4+E_8)} \\
\frac{+f_5^- f_8^- f_9^- f_{11}^- f_{12}^- -f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+}{(-E_5+E_7)(-E_5-E_9+E_3+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_2+E_9)(-E_{11}-E_{12}+E_4+E_9)} \\
\frac{+f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ -f_7^- f_8^- f_9^- f_{11}^- f_{12}^-}{(-E_7+E_5)(-E_7-E_9+E_3+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_2+E_9)(-E_{11}-E_{12}+E_4+E_9)} \\
\frac{+f_3^- f_{10}^- f_{11}^- f_{12}^- f_8^+ -f_3^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_3-E_{10}+E_5+E_8)(-E_3-E_{10}+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_{10}-E_{12}+E_2+E_8)(-E_{10}-E_{12}+E_4+E_8)} \\
\frac{+f_3^- f_8^- f_{11}^- f_{12}^- f_9^+ -f_3^- f_{10}^- f_{11}^- f_{12}^- f_9^+}{(-E_3-E_{11}+E_5+E_9)(-E_3-E_{11}+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_2+E_9)(-E_{11}-E_{12}+E_4+E_9)}
\end{array} \right)$$

$$-\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,6\}\{7,8|V|9,2\}\{9,10|V|11,8\}\{11,12|V|3,10\}f_1^- f_6^- \begin{pmatrix} \frac{+f_5^- f_8^- f_{10}^- f_{12}^- f_2^+ + f_2^- f_3^- f_5^- f_9^- f_{10}^- - f_2^- f_5^- f_8^- f_{11}^- f_{12}^- + f_2^- f_3^- f_5^- f_8^- f_{11}^- - f_2^- f_5^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_5^- f_8^- f_{10}^- + f_2^- f_5^- f_9^- f_{11}^- f_{12}^- - f_2^- f_3^- f_9^- f_{11}^- f_5^+}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_{10}+E_2+E_{11})(-E_5-E_{12}+E_2+E_3)} \\ \frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- + f_3^- f_4^- f_5^- f_8^- f_{11}^- + f_5^- f_8^- f_{10}^- f_{12}^- f_4^+ - f_4^- f_5^- f_9^- f_{10}^- f_{12}^- - f_4^- f_5^- f_8^- f_{11}^- f_{12}^- - f_3^- f_4^- f_5^- f_8^- f_{10}^- + f_4^- f_5^- f_9^- f_{11}^- f_{12}^- - f_3^- f_4^- f_9^- f_{11}^- f_5^+}{(-E_4+E_2)(-E_5+E_7)(-E_4-E_9+E_5+E_8)(-E_5-E_{10}+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\ \frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^- - f_2^- f_3^- f_7^- f_9^- f_{10}^- - f_2^- f_3^- f_7^- f_8^- f_{11}^- + f_2^- f_7^- f_8^- f_{11}^- f_{12}^- - f_7^- f_8^- f_{10}^- f_{12}^- f_2^+ + f_2^- f_7^- f_9^- f_{10}^- f_{12}^- + f_2^- f_3^- f_9^- f_{11}^- f_7^+ - f_2^- f_7^- f_9^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_2-E_3+E_7+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- - f_3^- f_4^- f_7^- f_8^- f_{10}^- + f_7^- f_8^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- - f_4^- f_7^- f_9^- f_{10}^- f_{12}^- - f_4^- f_7^- f_8^- f_{11}^- f_{12}^- + f_4^- f_7^- f_9^- f_{11}^- f_{12}^- - f_3^- f_4^- f_9^- f_{11}^- f_7^+}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8+E_4+E_9)(-E_4-E_{11}+E_7+E_{10})(-E_3-E_4+E_7+E_{12})} \\ \frac{+f_2^- f_9^- f_{11}^- f_{12}^- f_8^+ + f_2^- f_3^- f_9^- f_{10}^- f_8^+ - f_2^- f_3^- f_8^- f_9^- f_{11}^- - f_2^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_3+E_8)} \\ \frac{+f_3^- f_4^- f_8^- f_9^- f_{11}^- + f_4^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_3^- f_4^- f_9^- f_{10}^- f_8^+ - f_4^- f_9^- f_{11}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_4-E_9+E_5+E_8)(-E_4-E_9+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_8+E_9+E_{12})} \\ \frac{+f_2^- f_9^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_9^- f_{10}^- f_{11}^- - f_2^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_3^- f_8^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_2-E_{11}+E_5+E_{10})(-E_2-E_{11}+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_3+E_{10})} \\ \frac{+f_3^- f_4^- f_8^- f_{11}^- f_{10}^+ - f_4^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_4^- f_9^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_9^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_4-E_{11}+E_5+E_{10})(-E_4-E_{11}+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})} \\ \frac{+f_2^- f_3^- f_9^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_8^- f_{10}^- f_{12}^+ + f_2^- f_3^- f_8^- f_{11}^- f_{12}^+ - f_2^- f_3^- f_9^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_{12})(-E_2-E_3+E_7+E_{12})(-E_9-E_{12}+E_3+E_8)(-E_3-E_{10}+E_{11}+E_{12})} \\ \frac{+f_3^- f_4^- f_9^- f_{11}^- f_{12}^- - f_3^- f_4^- f_9^- f_{10}^- f_{12}^+ + f_3^- f_4^- f_8^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_8^- f_{11}^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_9-E_{12}+E_3+E_8)(-E_{11}-E_{12}+E_3+E_{10})} \\ \frac{+f_3^- f_5^- f_8^- f_{10}^- f_9^+ + f_5^- f_8^- f_{11}^- f_{12}^- f_9^+ - f_5^- f_8^- f_9^- f_{10}^- f_{12}^- - f_3^- f_5^- f_8^- f_{11}^- f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_8+E_4+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_8+E_9+E_{12})} \\ \frac{+f_3^- f_7^- f_8^- f_{10}^- f_9^+ - f_3^- f_7^- f_8^- f_{11}^- f_9^+ + f_7^- f_8^- f_{11}^- f_{12}^- f_9^+ - f_7^- f_8^- f_9^- f_{10}^- f_{12}^-}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_8+E_9+E_{12})} \\ \frac{+f_3^- f_5^- f_9^- f_{10}^- f_{11}^+ - f_3^- f_5^- f_8^- f_{10}^- f_{11}^+ + f_5^- f_8^- f_{10}^- f_{11}^- f_{12}^- - f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+}{(-E_5+E_7)(-E_5-E_{10}+E_2+E_{11})(-E_5-E_{10}+E_4+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_3-E_{10}+E_{11}+E_{12})} \\ \frac{+f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^- + f_3^- f_7^- f_8^- f_{10}^- f_{11}^+ - f_3^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_7+E_5)(-E_7-E_{10}+E_2+E_{11})(-E_7-E_{10}+E_4+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_3+E_{10})} \\ \frac{+f_3^- f_5^- f_8^- f_{10}^- f_{12}^- - f_5^- f_8^- f_{11}^- f_{12}^- f_3^+ + f_5^- f_9^- f_{11}^- f_{12}^- f_3^+ - f_5^- f_9^- f_{10}^- f_{12}^- f_3^+}{(-E_5+E_7)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_3-E_8+E_9+E_{12})(-E_3-E_{10}+E_{11}+E_{12})} \\ \frac{+f_7^- f_8^- f_{11}^- f_{12}^- f_3^+ - f_3^- f_7^- f_8^- f_{10}^- f_{12}^- + f_7^- f_9^- f_{10}^- f_{12}^- f_3^+ - f_7^- f_9^- f_{11}^- f_{12}^- f_3^+}{(-E_7+E_5)(-E_7-E_{12}+E_2+E_3)(-E_7-E_{12}+E_3+E_4)(-E_3-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_{10})} \end{pmatrix}$$

$$
-\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|3,8\}\{7,8|V|9,12\}\{9,10|V|11,6\}\{11,12|V|7,2\}f_1^-
\left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- - f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_5-E_6-E_7+E_3+E_9+E_{12})}\\
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- - f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_3+E_5+E_{10})(-E_5-E_6-E_{11}+E_2+E_3+E_9)(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_2^- f_3^- f_8^- f_9^- f_{12}^- f_5^+ - f_2^- f_3^- f_7^- f_8^- f_9^- f_5^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_3+E_5+E_{10})(-E_2-E_9+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_5^+ - f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_3+E_5+E_{10})(-E_8-E_{11}+E_2+E_9)(-E_{11}-E_{12}+E_2+E_7)}\\
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_{12}^+}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_3+E_5+E_{10})(-E_5-E_6-E_7+E_3+E_9+E_{12})(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_2^- f_3^- f_7^- f_8^- f_5^+ f_{12}^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_3+E_5+E_{10})(-E_7-E_8+E_9+E_{12})(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- - f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_6+E_{11})(-E_5-E_6-E_7+E_3+E_9+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_3-E_4+E_5+E_{10})(-E_5-E_6-E_{11}+E_3+E_4+E_9)(-E_4-E_7+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{12}^- f_5^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_5^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_4-E_9+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+ - f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_5^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_8-E_{11}+E_4+E_9)(-E_4-E_7+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_{12}^+}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_3-E_4+E_5+E_{10})(-E_5-E_6-E_7+E_3+E_9+E_{12})(-E_4-E_7+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_5^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_7-E_8+E_9+E_{12})(-E_4-E_7+E_{11}+E_{12})}\\
\frac{+f_2^- f_5^- f_6^- f_7^- f_9^- f_8^+ - f_2^- f_3^- f_6^- f_7^- f_8^- f_9^- + f_2^- f_3^- f_6^- f_8^- f_9^- f_{12}^- - f_2^- f_5^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_6+E_8+E_{10})(-E_2-E_9+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{12}^- - f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+ + f_2^- f_5^- f_6^- f_7^- f_{11}^- f_8^+ - f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_8-E_{11}+E_2+E_9)(-E_{11}-E_{12}+E_2+E_7)}\\
\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_{12}^+ - f_2^- f_5^- f_6^- f_7^- f_8^+ f_{12}^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_7-E_8+E_9+E_{12})(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_9^- - f_4^- f_5^- f_6^- f_7^- f_9^- f_8^+ - f_3^- f_4^- f_6^- f_8^- f_9^- f_{12}^- + f_4^- f_5^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_4-E_6+E_8+E_{10})(-E_4-E_9+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{12}^- + f_4^- f_5^- f_6^- f_7^- f_{11}^- f_8^+ - f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- - f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_4-E_6+E_8+E_{10})(-E_8-E_{11}+E_4+E_9)(-E_{11}-E_{12}+E_4+E_7)}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{12}^+ - f_4^- f_5^- f_6^- f_7^- f_8^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_4-E_6+E_8+E_{10})(-E_7-E_8+E_9+E_{12})(-E_4-E_7+E_{11}+E_{12})}\\
\frac{+f_2^- f_3^- f_8^- f_9^- f_{10}^- f_{12}^- - f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_2^+ + f_5^- f_7^- f_8^- f_9^- f_{10}^- f_2^+ - f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_2-E_9+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_2^- f_3^- f_8^- f_{10}^- f_{11}^- f_{12}^- + f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_2^+ - f_5^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_2^+ - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_8-E_{11}+E_2+E_9)(-E_{11}-E_{12}+E_2+E_7)}\\
\frac{+f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^+ - f_2^- f_5^- f_6^- f_7^- f_9^- f_{10}^- + f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_6^- f_9^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_2-E_6-E_7+E_9+E_{10}+E_{12})}\\
\frac{+f_2^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- - f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{10}^+ + f_2^- f_3^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_2-E_6+E_8+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_5^- f_7^- f_8^- f_{10}^- f_2^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_7-E_8+E_9+E_{12})(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_2^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_6^- f_7^- f_{10}^+ f_{12}^+}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_2-E_6+E_8+E_{10})(-E_2-E_6-E_7+E_9+E_{10}+E_{12})(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_2^- f_3^- f_9^- f_{12}^- f_5^+ f_{11}^+ - f_2^- f_3^- f_7^- f_9^- f_5^+ f_{11}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_2-E_9+E_8+E_{11})(-E_{11}-E_{12}+E_2+E_7)}\\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+ + f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_9+E_8+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_{11}-E_{12}+E_2+E_7)}\\
\frac{+f_2^- f_3^- f_9^- f_{12}^- f_5^+ f_7^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_3-E_9-E_{12}+E_5+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_5^- f_9^- f_{10}^- f_{12}^- f_2^+ f_7^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_2+E_6+E_7)(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{12}^- - f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_5^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_4+E_6)(-E_4-E_9+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_3^- f_4^- f_8^- f_{10}^- f_{11}^- f_{12}^- + f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ - f_5^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_4+E_6)(-E_8-E_{11}+E_4+E_9)(-E_{11}-E_{12}+E_4+E_7)}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^+ - f_4^- f_5^- f_6^- f_7^- f_9^- f_{10}^- - f_3^- f_4^- f_6^- f_9^- f_{12}^- f_{10}^+ + f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_4-E_6+E_8+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_4-E_6-E_7+E_9+E_{10}+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_6^- f_{11}^- f_{12}^- f_{10}^+ + f_4^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- - f_4^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_4-E_6+E_8+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_4-E_7+E_{11}+E_{12})}\\
\frac{+f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_8-E_{10}+E_4+E_6)(-E_7-E_8+E_9+E_{12})(-E_4-E_7+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^+ f_{12}^+ - f_4^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_4-E_6+E_8+E_{10})(-E_4-E_6-E_7+E_9+E_{10}+E_{12})(-E_4-E_7+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_5^+ f_{11}^+ - f_3^- f_4^- f_7^- f_9^- f_5^+ f_{11}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_6+E_{11})(-E_4-E_9+E_8+E_{11})(-E_{11}-E_{12}+E_4+E_7)}\\
\frac{+f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+ + f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_4-E_9+E_8+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_4-E_7+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_9^- f_{12}^- f_5^+ f_7^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_9-E_{12}+E_5+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_4-E_7+E_{11}+E_{12})}\\
\frac{+f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_7^+ - f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_7^+}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_4+E_6+E_7)(-E_4-E_7+E_{11}+E_{12})}\\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_9^+ - f_2^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ - f_2^- f_3^- f_6^- f_9^- f_{12}^- f_{11}^+ + f_2^- f_3^- f_6^- f_7^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_5-E_6-E_{11}+E_2+E_3+E_9)(-E_2-E_9+E_8+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_2+E_7)}\\
\frac{+f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_9^+ + f_3^- f_4^- f_6^- f_7^- f_9^- f_{11}^+ - f_4^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ - f_3^- f_4^- f_6^- f_9^- f_{12}^- f_{11}^+}{(-E_4+E_2)(-E_5-E_6-E_{11}+E_3+E_4+E_9)(-E_4-E_9+E_8+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_4+E_7)}\\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{12}^- f_7^+ - f_2^- f_5^- f_6^- f_7^- f_9^+ f_{12}^+}{(-E_2+E_4)(-E_3-E_9-E_{12}+E_5+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_2-E_6-E_7+E_9+E_{10}+E_{12})(-E_2-E_7+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{12}^- f_7^+ - f_4^- f_5^- f_6^- f_7^- f_9^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_9-E_{12}+E_5+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_4-E_6-E_7+E_9+E_{10}+E_{12})(-E_4-E_7+E_{11}+E_{12})}\\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_3^+ - f_5^- f_6^- f_7^- f_9^- f_{10}^- f_3^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_9-E_{12}+E_5+E_6+E_7)}\\
\frac{+f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_3^+ - f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_3^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_7-E_{10}+E_3+E_{11}+E_{12})}\\
\frac{+f_3^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- - f_3^- f_5^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_3-E_8+E_5+E_6)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_5-E_9-E_{10}+E_3+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- - f_3^- f_5^- f_8^- f_{10}^- f_{11}^- f_{12}^-}{(-E_3-E_8+E_5+E_6)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_3-E_8-E_{11}+E_5+E_9+E_{10})(-E_5-E_7-E_{10}+E_3+E_{11}+E_{12})}\\
\frac{+f_5^- f_6^- f_7^- f_{10}^- f_3^+ f_{12}^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_5-E_6-E_7+E_3+E_9+E_{12})(-E_5-E_7-E_{10}+E_3+E_{11}+E_{12})}\\
\frac{+f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_3-E_8+E_5+E_6)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_5-E_7-E_{10}+E_3+E_{11}+E_{12})}
\end{array}\right)
$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_8^- f_9^- - f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_5-E_6-E_8+E_2+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- - f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_3+E_5+E_{10})(-E_5-E_6-E_{11}+E_2+E_3+E_9)(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_8^- f_9^- f_5^+ - f_2^- f_3^- f_7^- f_9^- f_{12}^- f_5^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_3+E_5+E_{10})(-E_3-E_9+E_7+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+ - f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_5^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_3+E_5+E_{10})(-E_7-E_{11}+E_3+E_9)(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_5^- f_6^- f_8^- f_9^- f_{10}^- f_2^+ - f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_2^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_6-E_8+E_2+E_9+E_{12})}$$

$$\frac{+f_5^- f_6^- f_8^- f_{10}^- f_{11}^- f_2^+ - f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_2^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_{10}+E_2+E_3)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^- - f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_{10}+E_2+E_3)(-E_5-E_9-E_{10}+E_2+E_7+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_{10}+E_2+E_3)(-E_2-E_7-E_{11}+E_5+E_9+E_{10})(-E_2-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_8^- f_{12}^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_3+E_5+E_{10})(-E_5-E_6-E_8+E_2+E_9+E_{12})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_5^- f_6^- f_8^- f_{10}^- f_2^+ f_{12}^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_{10}+E_2+E_3)(-E_5-E_6-E_8+E_2+E_9+E_{12})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_8^- f_5^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_3+E_5+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_{10}+E_2+E_3)(-E_7-E_8+E_9+E_{12})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^- - f_2^- f_3^- f_6^- f_7^- f_8^- f_9^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_{10})(-E_3-E_9+E_7+E_{11})(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^- - f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_{10})(-E_7-E_{11}+E_3+E_9)(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_2^- f_7^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_{10}+E_3+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_{10}+E_3+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_6-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_{10}+E_3+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_6+E_{11}+E_{12})}$$

$$\frac{+f_5^- f_6^- f_{11}^- f_{12}^- f_2^+ f_9^+ - f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_9^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6-E_{11}+E_2+E_3+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_2-E_9-E_{12}+E_5+E_6+E_8)}$$

$$\frac{+f_2^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ - f_2^- f_6^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_{11}+E_3+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_7^- f_{11}^- f_{12}^- f_5^+ f_9^+ - f_2^- f_7^- f_8^- f_{11}^- f_5^+ f_9^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_{11}+E_3+E_9)(-E_2-E_7-E_{11}+E_5+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6-E_8+E_2+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_8)(-E_2-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$\frac{+f_2^- f_7^- f_{11}^- f_{12}^- f_5^+ f_8^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_8)(-E_2-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$\frac{+f_2^- f_6^- f_7^- f_{11}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_8)(-E_6-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- - f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_6+E_{11})(-E_5-E_6-E_8+E_4+E_9+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{12}^- - f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_{10})(-E_5-E_6-E_{11}+E_3+E_4+E_9)(-E_{11}-E_{12}+E_3+E_8)}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_5^+ - f_3^- f_4^- f_7^- f_9^- f_{12}^- f_5^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_3-E_9+E_7+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_5^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_7-E_{11}+E_3+E_9)(-E_{11}-E_{12}+E_3+E_8)}$$

$$\frac{+f_5^- f_6^- f_8^- f_9^- f_{10}^- f_4^+ - f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_6-E_8+E_4+E_9+E_{12})}$$

$$\frac{+f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_5^- f_6^- f_8^- f_{10}^- f_{11}^- f_4^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_{10}+E_3+E_4)(-E_6-E_{11}+E_9+E_{10})(-E_4-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$\frac{+f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^- - f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_{10}+E_3+E_4)(-E_5-E_9-E_{10}+E_4+E_7+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- - f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_{10}+E_3+E_4)(-E_4-E_7-E_{11}+E_5+E_9+E_{10})(-E_5-E_8-E_{10}+E_4+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_{12}^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_{10})(-E_5-E_6-E_8+E_4+E_9+E_{12})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_5^- f_6^- f_8^- f_{10}^- f_4^+ f_{12}^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_{10}+E_3+E_4)(-E_5-E_6-E_8+E_4+E_9+E_{12})(-E_5-E_8-E_{10}+E_4+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_5^+ f_{12}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_{10}+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_5-E_8-E_{10}+E_4+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^- - f_3^- f_4^- f_6^- f_7^- f_8^- f_9^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_{10})(-E_3-E_9+E_7+E_{11})(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- - f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_{10})(-E_7-E_{11}+E_3+E_9)(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ - f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_{10}+E_3+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_{10}+E_3+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_6-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_{10}+E_3+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_6+E_{11}+E_{12})}$$

$$\frac{+f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_9^+ - f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_9^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_6-E_{11}+E_3+E_4+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_4-E_9-E_{12}+E_5+E_6+E_8)}$$

$$\frac{+f_4^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ - f_4^- f_6^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_{11}+E_3+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_4^- f_7^- f_8^- f_{11}^- f_5^+ f_9^+ - f_4^- f_7^- f_{11}^- f_{12}^- f_5^+ f_9^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_{11}+E_3+E_9)(-E_4-E_7-E_{11}+E_5+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_6-E_8+E_4+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_8)(-E_4-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$\frac{+f_4^- f_7^- f_{11}^- f_{12}^- f_5^+ f_8^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_8)(-E_4-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$\frac{+f_4^- f_6^- f_7^- f_{11}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_8)(-E_6-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\left(\begin{array}{c}
\frac{+f_1^- f_2^- f_4^- f_7^- f_8^- f_9^- f_3^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_2+E_3+E_6)(-E_1-E_4+E_7+E_{10})(-E_1-E_4-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_7^- f_8^- f_{11}^- f_3^+ - f_1^- f_2^- f_4^- f_7^- f_9^- f_3^+ f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_2+E_3+E_6)(-E_1-E_4+E_7+E_{10})(-E_7-E_8-E_{11}+E_1+E_4+E_9)(-E_1-E_4+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_8^- f_9^- f_3^+ f_{10}^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_2+E_3+E_6)(-E_1-E_4+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_1-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_8^- f_{11}^- f_3^+ f_{10}^+ - f_1^- f_2^- f_4^- f_9^- f_3^+ f_{10}^+ f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_2+E_3+E_6)(-E_1-E_4+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_1-E_4+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_7^- f_9^- f_{12}^- f_3^+ - f_1^- f_2^- f_4^- f_7^- f_8^- f_3^+ f_{12}^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_2+E_3+E_6)(-E_1-E_4+E_7+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_1-E_4+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_9^- f_{12}^- f_3^+ f_{10}^+ - f_1^- f_2^- f_4^- f_8^- f_3^+ f_{10}^+ f_{12}^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_2+E_3+E_6)(-E_1-E_4+E_7+E_{10})(-E_9-E_{10}-E_{12}+E_1+E_4+E_8)(-E_1-E_4+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_9^- f_3^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_2+E_3+E_6)(-E_1-E_2-E_5+E_3+E_7+E_{10})(-E_1-E_2-E_5-E_9+E_3+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_{11}^- f_3^+ - f_1^- f_2^- f_5^- f_7^- f_9^- f_3^+ f_{11}^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_2+E_3+E_6)(-E_1-E_2-E_5+E_3+E_7+E_{10})(-E_3-E_7-E_8-E_{11}+E_1+E_2+E_5+E_9)(-E_1-E_2-E_5+E_3+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_8^- f_9^- f_3^+ f_{10}^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_2+E_3+E_6)(-E_1-E_2-E_5+E_3+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_1-E_2-E_5-E_8+E_3+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_3^+ f_{10}^+ f_{11}^+ - f_1^- f_2^- f_5^- f_8^- f_{11}^- f_3^+ f_{10}^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_2+E_3+E_6)(-E_1-E_2-E_5+E_3+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_1-E_2-E_5+E_3+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_9^- f_{12}^- f_3^+ - f_1^- f_2^- f_5^- f_7^- f_8^- f_3^+ f_{12}^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_2+E_3+E_6)(-E_1-E_2-E_5+E_3+E_7+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_1-E_2-E_5+E_3+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_{12}^- f_3^+ f_{10}^+ - f_1^- f_2^- f_5^- f_8^- f_3^+ f_{10}^+ f_{12}^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_2+E_3+E_6)(-E_1-E_2-E_5+E_3+E_7+E_{10})(-E_3-E_9-E_{10}-E_{12}+E_1+E_2+E_5+E_8)(-E_1-E_2-E_5+E_3+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_9^- f_2^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_6+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_4-E_6-E_9+E_2+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_2^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_2^+ f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_6+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_2-E_7-E_8-E_{11}+E_3+E_4+E_6+E_9)(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_2^+ f_{10}^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_6+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4-E_6-E_8+E_2+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_2^+ f_{10}^+ - f_3^- f_4^- f_6^- f_9^- f_2^+ f_{10}^+ f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_6+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^- f_2^+ - f_3^- f_4^- f_6^- f_7^- f_8^- f_2^+ f_{12}^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_6+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{12}^- f_2^+ f_{10}^+ - f_3^- f_4^- f_6^- f_8^- f_2^+ f_{10}^+ f_{12}^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_6+E_1+E_2)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_2-E_9-E_{10}-E_{12}+E_3+E_4+E_6+E_8)(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_8^- f_9^-}{(-E_2-E_5+E_3+E_4)(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- - f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^+}{(-E_2-E_5+E_3+E_4)(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^+}{(-E_2-E_5+E_3+E_4)(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^+ f_{11}^+ - f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_2-E_5+E_3+E_4)(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{12}^- - f_2^- f_3^- f_5^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_2-E_5+E_3+E_4)(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_5^- f_6^- f_8^- f_{10}^+ f_{12}^+}{(-E_2-E_5+E_3+E_4)(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_9^- f_3^+ f_8^+ f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_2+E_3+E_6)(-E_1-E_4-E_9+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_1-E_4+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_3^+ f_8^+ f_{11}^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_2+E_3+E_6)(-E_1-E_2-E_5-E_9+E_3+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_1-E_2-E_5+E_3+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_2^+ f_8^+ f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_6+E_1+E_2)(-E_3-E_4-E_6-E_9+E_2+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+ f_{11}^+}{(-E_2-E_5+E_3+E_4)(-E_3-E_6+E_1+E_2)(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_9^- f_{12}^- f_3^+ f_8^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_2+E_3+E_6)(-E_9-E_{12}+E_7+E_8)(-E_1-E_4-E_8+E_9+E_{10}+E_{12})(-E_1-E_4+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_{12}^- f_3^+ f_8^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_2+E_3+E_6)(-E_9-E_{12}+E_7+E_8)(-E_1-E_2-E_5-E_8+E_3+E_9+E_{10}+E_{12})(-E_1-E_2-E_5+E_3+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{12}^- f_2^+ f_8^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_6+E_1+E_2)(-E_9-E_{12}+E_7+E_8)(-E_3-E_4-E_6-E_8+E_2+E_9+E_{10}+E_{12})(-E_3-E_4-E_6+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_2-E_5+E_3+E_4)(-E_3-E_6+E_1+E_2)(-E_9-E_{12}+E_7+E_8)(-E_5-E_6-E_8+E_9+E_{10}+E_{12})(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_7^- f_8^- f_9^- f_5^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_5^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_4+E_5+E_6)(-E_1-E_4+E_7+E_{10})(-E_1-E_4-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_7^- f_8^- f_{11}^- f_5^+ + f_1^- f_3^- f_4^- f_7^- f_9^- f_5^+ f_{11}^+ - f_1^- f_2^- f_4^- f_7^- f_9^- f_5^+ f_{11}^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_4+E_5+E_6)(-E_1-E_4+E_7+E_{10})(-E_7-E_8-E_{11}+E_1+E_4+E_9)(-E_1-E_4+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_5^+ f_{10}^+ - f_1^- f_2^- f_4^- f_8^- f_9^- f_5^+ f_{10}^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_5+E_6)(-E_1-E_4+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_1-E_4-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_9^- f_5^+ f_{10}^+ f_{11}^+ - f_1^- f_3^- f_4^- f_9^- f_5^+ f_{10}^+ f_{11}^+ - f_1^- f_2^- f_4^- f_8^- f_{11}^- f_5^+ f_{10}^+ + f_1^- f_3^- f_4^- f_8^- f_{11}^- f_5^+ f_{10}^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_4+E_5+E_6)(-E_1-E_4+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_1-E_4+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- f_{12}^- f_5^+ - f_1^- f_2^- f_4^- f_7^- f_9^- f_{12}^- f_5^+ + f_1^- f_2^- f_4^- f_7^- f_8^- f_5^+ f_{12}^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_5^+ f_{12}^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_5+E_6)(-E_1-E_4+E_7+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_1-E_4+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_5^+ f_{10}^+ f_{12}^+ + f_1^- f_2^- f_4^- f_9^- f_{12}^- f_5^+ f_{10}^+ - f_1^- f_3^- f_4^- f_9^- f_{12}^- f_5^+ f_{10}^+ - f_1^- f_2^- f_4^- f_8^- f_5^+ f_{10}^+ f_{12}^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_5+E_6)(-E_1-E_4+E_7+E_{10})(-E_1-E_4-E_8+E_9+E_{10}+E_{12})(-E_1-E_4+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+ - f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- f_9^-}{(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_1+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- f_{11}^- - f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- f_{11}^+ + f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ f_{11}^+ - f_2^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_4^+}{(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_1+E_4)(-E_5-E_6+E_7+E_{10})(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- f_{10}^+ - f_2^- f_5^- f_6^- f_8^- f_9^- f_4^+ f_{10}^+}{(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_1+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_{10}^+ + f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^+ f_{11}^+ - f_2^- f_5^- f_6^- f_9^- f_4^+ f_{10}^+ f_{11}^+ - f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_1+E_4)(-E_5-E_6+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- f_{12}^+ - f_3^- f_4^- f_5^- f_6^- f_7^- f_9^- f_{12}^- + f_2^- f_5^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ - f_2^- f_5^- f_6^- f_7^- f_8^- f_4^+ f_{12}^+}{(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_1+E_4)(-E_5-E_6+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_4^+ f_{10}^+ f_{12}^+ - f_2^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_8^- f_{10}^+ f_{12}^+ + f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^- f_{10}^+}{(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_1+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_9^- f_5^+ f_8^+ f_{11}^+ - f_1^- f_3^- f_4^- f_9^- f_5^+ f_8^+ f_{11}^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_4+E_5+E_6)(-E_1-E_4-E_9+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_1-E_4+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ f_{11}^+ - f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_1+E_4)(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_5-E_6+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_9^- f_{12}^- f_5^+ f_8^+ - f_1^- f_2^- f_4^- f_9^- f_{12}^- f_5^+ f_8^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_5+E_6)(-E_9-E_{12}+E_7+E_8)(-E_1-E_4-E_8+E_9+E_{10}+E_{12})(-E_1-E_4+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_8^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_1+E_4)(-E_9-E_{12}+E_7+E_8)(-E_5-E_6-E_8+E_9+E_{10}+E_{12})(-E_5-E_6+E_{11}+E_{12})}
\end{array}\right)$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- - f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- + f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{10}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_{10}^-}{(-E_1-E_2+E_3+E_6)(-E_2-E_5+E_3+E_8)(-E_5-E_7+E_3+E_9)(-E_3-E_4-E_{11}+E_5+E_7+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_2-E_5+E_3+E_8)(-E_5-E_7+E_3+E_9)(-E_5-E_7-E_{10}+E_3+E_4+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^- - f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- + f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_1-E_2+E_3+E_6)(-E_2-E_5+E_3+E_8)(-E_3-E_9+E_5+E_7)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+}{(-E_1-E_2+E_3+E_6)(-E_2-E_5+E_3+E_8)(-E_3-E_9+E_5+E_7)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- - f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^- + f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{12}^-}{(-E_3-E_6+E_1+E_2)(-E_2-E_5+E_3+E_8)(-E_5-E_7+E_3+E_9)(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- + f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^-}{(-E_1-E_2+E_3+E_6)(-E_2-E_5+E_3+E_8)(-E_3-E_9+E_5+E_7)(-E_5-E_{12}+E_3+E_4)(-E_5-E_{11}-E_{12}+E_3+E_9+E_{10})}$$

$$\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_2^+ - f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- + f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- - f_3^- f_4^- f_6^- f_7^- f_8^- f_{10}^- f_2^+}{(-E_3-E_6+E_1+E_2)(-E_3-E_8+E_2+E_5)(-E_7-E_8+E_2+E_9)(-E_2-E_4-E_{11}+E_7+E_8+E_{10})(-E_2-E_4+E_8+E_{12})}$$

$$\frac{+f_3^- f_6^- f_7^- f_8^- f_{10}^- f_2^+ f_{11}^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_3-E_8+E_2+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_{11}^- f_2^+ - f_3^- f_4^- f_6^- f_8^- f_9^- f_{10}^- f_2^+ - f_1^- f_2^- f_3^- f_4^- f_8^- f_9^- f_{11}^- + f_1^- f_2^- f_3^- f_4^- f_8^- f_9^- f_{10}^-}{(-E_3-E_6+E_1+E_2)(-E_3-E_8+E_2+E_5)(-E_2-E_9+E_7+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_8+E_{12})}$$

$$\frac{+f_3^- f_6^- f_8^- f_9^- f_{10}^- f_2^+ f_{11}^+ - f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^- f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_3-E_8+E_2+E_5)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_2-E_9-E_{10}+E_8+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- - f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^- f_2^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^-}{(-E_3-E_6+E_1+E_2)(-E_3-E_8+E_2+E_5)(-E_7-E_8+E_2+E_9)(-E_8-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{11}^- f_{12}^- - f_3^- f_6^- f_8^- f_9^- f_{11}^- f_{12}^- f_2^+ - f_1^- f_2^- f_3^- f_8^- f_9^- f_{10}^- f_{12}^- + f_3^- f_6^- f_8^- f_9^- f_{10}^- f_{12}^- f_2^+}{(-E_1-E_2+E_3+E_6)(-E_3-E_8+E_2+E_5)(-E_2-E_9+E_7+E_8)(-E_8-E_{12}+E_2+E_4)(-E_8-E_{11}-E_{12}+E_2+E_9+E_{10})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{10}^+ - f_2^- f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_2-E_5+E_3+E_8)(-E_3-E_4-E_{11}+E_5+E_7+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_2^+ f_{10}^+ - f_1^- f_2^- f_3^- f_4^- f_8^- f_{11}^- f_{10}^+}{(-E_3-E_6+E_1+E_2)(-E_3-E_8+E_2+E_5)(-E_2-E_4-E_{11}+E_7+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_2-E_5+E_3+E_8)(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_7+E_{10})(-E_5-E_{11}-E_{12}+E_3+E_9+E_{10})}$$

$$\frac{+f_1^- f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_6^- f_8^- f_{11}^- f_{12}^- f_2^+ f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_3-E_8+E_2+E_5)(-E_8-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_7+E_{10})(-E_8-E_{11}-E_{12}+E_2+E_9+E_{10})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- f_1^+ - f_3^- f_4^- f_5^- f_6^- f_7^- f_{10}^- f_1^+}{(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_5-E_7+E_3+E_9)(-E_3-E_4-E_{11}+E_5+E_7+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_3^- f_5^- f_6^- f_7^- f_{10}^- f_1^+ f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_5-E_7+E_3+E_9)(-E_5-E_7-E_{10}+E_3+E_4+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^- f_1^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- f_1^+}{(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_3-E_9+E_5+E_7)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- f_1^+ f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_3-E_9+E_5+E_7)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_1^+ - f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^- f_1^+}{(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_5-E_7+E_3+E_9)(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_1^+ - f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_1^+}{(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_3-E_9+E_5+E_7)(-E_5-E_{12}+E_3+E_4)(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_7^- f_{11}^- f_6^+ - f_1^- f_2^- f_4^- f_5^- f_7^- f_{10}^- f_6^+}{(-E_1-E_2+E_3+E_6)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_1-E_2-E_4-E_{11}+E_5+E_6+E_7+E_{10})(-E_1-E_2-E_4+E_5+E_6+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_7^- f_{10}^- f_6^+ f_{11}^+}{(-E_1-E_2+E_3+E_6)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_7-E_{10}+E_1+E_2+E_4+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_9^- f_{11}^- f_6^+ - f_1^- f_2^- f_4^- f_5^- f_9^- f_{10}^- f_6^+}{(-E_1-E_2+E_3+E_6)(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_4-E_{11}+E_9+E_{10})(-E_1-E_2-E_4+E_5+E_6+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_1-E_2+E_3+E_6)(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_9-E_{10}+E_4+E_{11})(-E_1-E_2-E_9-E_{10}+E_5+E_6+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{12}^- f_6^+}{(-E_1-E_2+E_3+E_6)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_{12}+E_1+E_2+E_4)(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_6^+}{(-E_1-E_2+E_3+E_6)(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_5-E_6-E_{12}+E_1+E_2+E_4)(-E_1-E_2-E_9-E_{10}+E_5+E_6+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ - f_1^- f_2^- f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_1-E_2+E_3+E_6)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_2-E_4-E_{11}+E_7+E_8+E_{10})(-E_2-E_4+E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_7^- f_8^- f_{10}^- f_6^+ f_{11}^+}{(-E_1-E_2+E_3+E_6)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_8^- f_9^- f_{11}^- f_6^+ - f_1^- f_2^- f_4^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_1-E_2+E_3+E_6)(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_8^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_1-E_2+E_3+E_6)(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_2-E_9-E_{10}+E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_2^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+}{(-E_1-E_2+E_3+E_6)(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_8-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_1^- f_2^- f_8^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_2^- f_8^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_1-E_2+E_3+E_6)(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_8-E_{12}+E_2+E_4)(-E_8-E_{11}-E_{12}+E_2+E_9+E_{10})}$$

$$\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- - f_1^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{10}^-}{(-E_3-E_6+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_6+E_9)(-E_3-E_4-E_6-E_{11}+E_1+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_1+E_8+E_{12})}$$

$$\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_6+E_9)(-E_1-E_7-E_8-E_{10}+E_3+E_4+E_6+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{11}^- - f_1^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{10}^-}{(-E_3-E_6+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_6-E_9+E_1+E_7+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4-E_6+E_1+E_8+E_{12})}$$

$$\frac{+f_1^- f_3^- f_6^- f_8^- f_9^- f_{10}^- f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_6-E_9+E_1+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_6-E_9-E_{10}+E_1+E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- - f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^-}{(-E_3-E_6+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_1-E_7-E_8+E_3+E_6+E_9)(-E_1-E_8-E_{12}+E_3+E_4+E_6)(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_1^- f_3^- f_6^- f_8^- f_9^- f_{11}^- f_{12}^- - f_1^- f_3^- f_6^- f_8^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_6+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_6-E_9+E_1+E_7+E_8)(-E_1-E_8-E_{12}+E_3+E_4+E_6)(-E_1-E_8-E_{11}-E_{12}+E_3+E_6+E_9+E_{10})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_1^+ f_{10}^+}{(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_3-E_4-E_{11}+E_5+E_7+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_{11}^- f_6^+ f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_4-E_{11}+E_5+E_6+E_7+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_1-E_2-E_4+E_5+E_6+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_8^- f_{11}^- f_6^+ f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_1-E_8+E_5+E_6)(-E_2-E_4-E_{11}+E_7+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_8+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_3-E_6+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_3-E_4-E_6-E_{11}+E_1+E_7+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4-E_6+E_1+E_8+E_{12})}$$

$$\frac{+f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_1^+ f_{10}^+}{(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_1+E_8)(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_7+E_{10})(-E_5-E_{11}-E_{12}+E_3+E_9+E_{10})}$$

$$\frac{+f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_6^+ f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_{12}+E_1+E_2+E_4)(-E_{11}-E_{12}+E_7+E_{10})(-E_5-E_6-E_{11}-E_{12}+E_1+E_2+E_9+E_{10})}$$

$$\frac{+f_1^- f_2^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_1-E_8+E_5+E_6)(-E_8-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_7+E_{10})(-E_8-E_{11}-E_{12}+E_2+E_9+E_{10})}$$

$$\frac{+f_1^- f_3^- f_6^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_3-E_6+E_1+E_2)(-E_1-E_8+E_5+E_6)(-E_1-E_8-E_{12}+E_3+E_4+E_6)(-E_{11}-E_{12}+E_7+E_{10})(-E_1-E_8-E_{11}-E_{12}+E_3+E_6+E_9+E_{10})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_8^-}{(-E_1-E_2+E_3+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_1-E_2-E_5+E_3+E_7+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_8^-}{(-E_3-E_6+E_1+E_2)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- f_1^+}{(-E_3-E_6+E_1+E_2)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_1-E_7-E_8+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_7^+}{(-E_1-E_2+E_3+E_6)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_1-E_2-E_5+E_3+E_7+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- f_7^+}{(-E_3-E_6+E_1+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_1-E_2+E_3+E_6)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_1-E_2-E_5-E_8+E_3+E_4+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_8^- f_9^-}{(-E_3-E_6+E_1+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_5-E_6-E_8+E_4+E_9+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_1^+ f_7^+}{(-E_3-E_6+E_1+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_1-E_4-E_9+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- f_1^+}{(-E_3-E_6+E_1+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_1-E_4-E_9+E_5+E_6+E_{11})(-E_5-E_6-E_8+E_4+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_1-E_2-E_4+E_7+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{10}^+}{(-E_3-E_6+E_1+E_2)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_1^+ f_{10}^+}{(-E_3-E_6+E_1+E_2)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_1-E_7-E_8-E_{10}+E_3+E_4+E_6+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_9^- f_7^+ f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2-E_4+E_7+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_6^- f_9^- f_7^+ f_{10}^+}{(-E_3-E_6+E_1+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_8^- f_9^- f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2-E_8+E_9+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{10}^+}{(-E_3-E_6+E_1+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_3-E_6-E_8+E_9+E_{10}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_9^- f_1^+ f_7^+ f_{10}^+}{(-E_3-E_6+E_1+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_1-E_9-E_{10}+E_3+E_6+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_1^+ f_{10}^+}{(-E_3-E_6+E_1+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_1-E_9-E_{10}+E_3+E_6+E_{11})(-E_3-E_6-E_8+E_9+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_7^- f_8^- f_6^+}{(-E_1-E_2+E_3+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2-E_4+E_5+E_6+E_{10})(-E_1-E_7-E_8+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_9^- f_6^+ f_7^+}{(-E_1-E_2+E_3+E_6)(-E_4-E_9+E_7+E_8)(-E_1-E_2-E_4+E_5+E_6+E_{10})(-E_1-E_4-E_9+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_8^- f_9^- f_6^+}{(-E_1-E_2+E_3+E_6)(-E_4-E_9+E_7+E_8)(-E_1-E_2-E_4+E_5+E_6+E_{10})(-E_1-E_4-E_9+E_5+E_6+E_{11})(-E_5-E_6-E_8+E_4+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_7^- f_8^- f_6^+ f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2-E_4+E_5+E_6+E_{10})(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_1-E_2-E_4+E_7+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_9^- f_6^+ f_7^+ f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_4-E_9+E_7+E_8)(-E_1-E_2-E_4+E_5+E_6+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2-E_4+E_7+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_8^- f_9^- f_6^+ f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_4-E_9+E_7+E_8)(-E_1-E_2-E_4+E_5+E_6+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2-E_8+E_9+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_9^+}{(-E_1-E_2+E_3+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_5+E_9+E_{10})(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_1-E_2-E_5+E_3+E_7+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_8^- f_9^+}{(-E_3-E_6+E_1+E_2)(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_5+E_9+E_{10})(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_1^+ f_9^+}{(-E_3-E_6+E_1+E_2)(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_5+E_9+E_{10})(-E_1-E_7-E_8+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_9^+ f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_5+E_9+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2-E_8+E_9+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_9^+ f_{10}^+}{(-E_3-E_6+E_1+E_2)(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_5+E_9+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_3-E_6-E_8+E_9+E_{10}+E_{12})}$$

$$\frac{+f_3^- f_6^- f_7^- f_8^- f_1^+ f_9^+ f_{10}^+}{(-E_3-E_6+E_1+E_2)(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_5+E_9+E_{10})(-E_1-E_9-E_{10}+E_3+E_6+E_{11})(-E_3-E_6-E_8+E_9+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_6^+ f_9^+}{(-E_1-E_2+E_3+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2-E_7-E_8+E_5+E_6+E_9+E_{10})(-E_1-E_7-E_8+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_1^- f_2^- f_7^- f_8^- f_6^+ f_9^+ f_{10}^+}{(-E_1-E_2+E_3+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_2-E_7-E_8+E_5+E_6+E_9+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2-E_8+E_9+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^+}{(-E_1-E_2+E_3+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_2-E_4-E_{11}+E_7+E_8+E_{10})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_2-E_4-E_{11}+E_7+E_8+E_{10})(-E_3-E_6-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_9^+ f_{11}^+}{(-E_1-E_2+E_3+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_9^+ f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_6-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_7^- f_8^- f_6^+ f_{11}^+}{(-E_1-E_2+E_3+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_7-E_8+E_5+E_6+E_{11})(-E_2-E_4-E_{11}+E_7+E_8+E_{10})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_1^+ f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_7-E_8+E_4+E_9)(-E_1-E_7-E_8+E_5+E_6+E_{11})(-E_3-E_4-E_6-E_{11}+E_1+E_7+E_8+E_{10})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_7^- f_8^- f_6^+ f_9^+ f_{11}^+}{(-E_1-E_2+E_3+E_6)(-E_7-E_8+E_4+E_9)(-E_1-E_7-E_8+E_5+E_6+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_6^- f_7^- f_8^- f_1^+ f_9^+ f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_7-E_8+E_4+E_9)(-E_1-E_7-E_8+E_5+E_6+E_{11})(-E_3-E_6-E_{11}+E_1+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_8^- f_9^- f_{11}^+}{(-E_1-E_2+E_3+E_6)(-E_4-E_9+E_7+E_8)(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_6-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_9^- f_7^+ f_{11}^+}{(-E_1-E_2+E_3+E_6)(-E_4-E_9+E_7+E_8)(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_4-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_6^- f_9^- f_7^+ f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_4-E_6-E_9+E_2+E_7+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_8^- f_9^- f_6^+ f_{11}^+}{(-E_1-E_2+E_3+E_6)(-E_4-E_9+E_7+E_8)(-E_1-E_4-E_9+E_5+E_6+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_9^- f_6^+ f_7^+ f_{11}^+}{(-E_1-E_2+E_3+E_6)(-E_4-E_9+E_7+E_8)(-E_1-E_4-E_9+E_5+E_6+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_4-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_1^+ f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_4-E_9+E_7+E_8)(-E_1-E_4-E_9+E_5+E_6+E_{11})(-E_3-E_6-E_{11}+E_1+E_9+E_{10})(-E_1-E_8+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_9^- f_1^+ f_7^+ f_{11}^+}{(-E_3-E_6+E_1+E_2)(-E_4-E_9+E_7+E_8)(-E_1-E_4-E_9+E_5+E_6+E_{11})(-E_3-E_6-E_{11}+E_1+E_9+E_{10})(-E_1-E_4-E_9+E_7+E_{11}+E_{12})}$$

$$-\frac{1}{6}\{1,2|V|3,8\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|5,10\}\{9,10|V|11,4\}\{11,12|V|9,2\}\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_9^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_5+E_{10})(-E_3-E_4-E_5-E_{11}+E_1+E_2+E_7+E_9)(-E_3-E_4-E_5+E_1+E_7+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_9^-}{(-E_1-E_6+E_3+E_4)(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_5+E_{10})(-E_5-E_6-E_{11}+E_2+E_7+E_9)(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^+ - f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- - f_1^- f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_5+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_2-E_4+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- - f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^-}{(-E_1-E_6+E_3+E_4)(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_5+E_{10})(-E_3-E_9-E_{10}+E_1+E_6+E_{11})(-E_1-E_2-E_6+E_3+E_{10}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- - f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_5+E_{10})(-E_4-E_5-E_{11}+E_7+E_8+E_9)(-E_3-E_4-E_5+E_1+E_7+E_{12})}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- - f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_9^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_5+E_{10})(-E_1-E_5-E_6-E_{11}+E_3+E_7+E_8+E_9)(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- - f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^+ + f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{10}^+ - f_1^- f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_8+E_1+E_2)(-E_5-E_{10}+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})}\\
\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{10}^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^- - f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+ + f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_5+E_{10})(-E_3-E_9-E_{10}+E_1+E_6+E_{11})(-E_6-E_8+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_{11}^- f_9^+ - f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_8)(-E_3-E_4-E_5-E_{11}+E_1+E_2+E_7+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_9^+ - f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_2+E_3+E_8)(-E_5-E_6-E_{11}+E_2+E_7+E_9)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_9^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_8+E_1+E_2)(-E_4-E_5-E_{11}+E_7+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_8-E_9+E_1+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_9^+ - f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_8+E_1+E_2)(-E_1-E_5-E_6-E_{11}+E_3+E_7+E_8+E_9)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_3-E_8-E_9+E_1+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^- + f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_{12}^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_8)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_2-E_4+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- + f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- - f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_8+E_1+E_2)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})(-E_1-E_{11}-E_{12}+E_3+E_8+E_9)}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- + f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_2+E_3+E_8)(-E_5-E_6+E_7+E_{12})(-E_1-E_2-E_6+E_3+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+ - f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- - f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ + f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_8+E_1+E_2)(-E_5-E_6+E_7+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_1-E_{11}-E_{12}+E_3+E_8+E_9)}\\
\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_6^+ + f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- f_6^+ - f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_4+E_6+E_8)(-E_2-E_4-E_7+E_5+E_6+E_{10})(-E_5-E_6-E_{11}+E_2+E_7+E_9)(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+ f_{10}^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+ f_{10}^+ - f_2^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ + f_1^- f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_6^- f_7^- f_{11}^- f_4^+ f_{10}^+ + f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_6^+ + f_2^- f_3^- f_4^- f_7^- f_{11}^- f_6^+ f_{10}^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_4+E_6+E_8)(-E_2-E_4-E_7+E_5+E_6+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_2-E_4+E_{10}+E_{12})}\\
\frac{+f_1^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_6^+ - f_1^- f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_6^+}{(-E_1-E_6+E_3+E_4)(-E_6-E_8+E_2+E_4)(-E_7-E_8+E_5+E_{10})(-E_4-E_5-E_{11}+E_7+E_8+E_9)(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+ + f_1^- f_5^- f_6^- f_8^- f_9^- f_{10}^- f_4^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{10}^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- f_6^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_{10}^+ + f_1^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+}{(-E_3-E_4+E_1+E_6)(-E_6-E_8+E_2+E_4)(-E_5-E_{10}+E_7+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_6-E_8+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_9^+ - f_2^- f_3^- f_4^- f_5^- f_{11}^- f_6^+ f_9^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+ f_{11}^+ + f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+ f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_4+E_6+E_8)(-E_5-E_6-E_{11}+E_2+E_7+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_9^+ - f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+ f_9^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{11}^+ - f_1^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_6-E_8+E_2+E_4)(-E_4-E_5-E_{11}+E_7+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_6-E_8-E_9+E_4+E_{11}+E_{12})}\\
\frac{+f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^- f_6^+ + f_1^- f_2^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_{12}^+ - f_2^- f_3^- f_4^- f_5^- f_{11}^- f_6^+ f_{12}^+ + f_2^- f_3^- f_4^- f_5^- f_9^- f_6^+ f_{12}^+ - f_1^- f_2^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_{12}^+}{(-E_3-E_4+E_1+E_6)(-E_2-E_4+E_6+E_8)(-E_7-E_{12}+E_5+E_6)(-E_2-E_4+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)}\\
\frac{+f_1^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_6^+ f_{12}^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- f_6^+ - f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_{12}^+ + f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+ f_{12}^+ - f_1^- f_6^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ + f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+}{(-E_1-E_6+E_3+E_4)(-E_6-E_8+E_2+E_4)(-E_7-E_{12}+E_5+E_6)(-E_6-E_8+E_{10}+E_{12})(-E_4-E_{11}-E_{12}+E_6+E_8+E_9)}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_7^+ - f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_7^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_5-E_{10}+E_1+E_2+E_7)(-E_5-E_{10}+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_4-E_5+E_1+E_7+E_{12})}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_7^+ - f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_7^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_5-E_{10}+E_1+E_2+E_7)(-E_5-E_{10}+E_7+E_8)(-E_3-E_9-E_{10}+E_1+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_7^+ + f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_6^+ f_7^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_6^+ f_7^+ - f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_7^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6-E_{10}+E_2+E_4+E_7)(-E_5-E_{10}+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_{11}^- f_7^+ f_9^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5-E_{11}+E_1+E_2+E_7+E_9)(-E_4-E_5-E_{11}+E_7+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4-E_5+E_1+E_7+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_6^+ f_7^+ f_9^+ - f_1^- f_5^- f_6^- f_{11}^- f_4^+ f_7^+ f_9^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6-E_{11}+E_2+E_7+E_9)(-E_4-E_5-E_{11}+E_7+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_{11}^- f_7^+ f_9^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6-E_{11}+E_2+E_7+E_9)(-E_1-E_5-E_6-E_{11}+E_3+E_7+E_8+E_9)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_{10}-E_{12}+E_2+E_4)(-E_1-E_{10}-E_{12}+E_3+E_4+E_8)}\\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_9^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_{11}-E_{12}+E_2+E_9)(-E_1-E_{11}-E_{12}+E_3+E_8+E_9)}\\
\frac{+f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_1^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_4)(-E_{10}-E_{12}+E_6+E_8)}\\
\frac{+f_1^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ f_9^+ - f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ f_9^+ + f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_6^+ f_9^+ - f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_9^+}{(-E_1-E_6+E_3+E_4)(-E_4-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_2+E_9)(-E_4-E_{11}-E_{12}+E_6+E_8+E_9)}\\
\frac{+f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ + f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_3-E_{10}-E_{12}+E_1+E_2+E_6)(-E_{10}-E_{12}+E_6+E_8)}\\
\frac{+f_1^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_9^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_6-E_{11}+E_3+E_9+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_2+E_9)(-E_1-E_{11}-E_{12}+E_3+E_8+E_9)}\\
\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_{11}^- f_8^+ - f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_2^+ + f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- f_2^+ - f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_6-E_8+E_2+E_4)(-E_7-E_8+E_5+E_{10})(-E_5-E_6-E_{11}+E_2+E_7+E_9)(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_1^- f_2^- f_4^- f_5^- f_7^- f_{11}^- f_8^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_2^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_2^+ - f_1^- f_2^- f_4^- f_5^- f_7^- f_9^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_2-E_4+E_6+E_8)(-E_7-E_8+E_5+E_{10})(-E_4-E_5-E_{11}+E_7+E_8+E_9)(-E_2-E_4-E_5+E_7+E_8+E_{12})}\\
\frac{+f_1^- f_2^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ - f_1^- f_2^- f_4^- f_7^- f_9^- f_8^+ f_{10}^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_{10}^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- f_2^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_{10}^+ + f_1^- f_2^- f_4^- f_7^- f_{11}^- f_8^+ f_{10}^+ + f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{11}^- f_2^+ - f_1^- f_2^- f_4^- f_5^- f_{10}^- f_{11}^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_2-E_4+E_6+E_8)(-E_5-E_{10}+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_2-E_4+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_6^- f_7^- f_9^- f_8^+ f_{10}^+ + f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^- f_2^+ - f_1^- f_2^- f_6^- f_7^- f_{11}^- f_8^+ f_{10}^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ + f_3^- f_6^- f_7^- f_8^- f_{11}^- f_2^+ f_{10}^+ - f_3^- f_6^- f_7^- f_8^- f_9^- f_2^+ f_{10}^+ - f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^- f_2^+ + f_1^- f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_6-E_8+E_2+E_4)(-E_7-E_8+E_5+E_{10})(-E_2-E_9-E_{10}+E_6+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_6^- f_{11}^- f_8^+ f_9^+ + f_3^- f_6^- f_7^- f_8^- f_9^- f_2^+ f_{11}^+ - f_3^- f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_9^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_8^+ f_{11}^+}{(-E_1-E_2+E_3+E_8)(-E_6-E_8+E_2+E_4)(-E_5-E_6-E_{11}+E_2+E_7+E_9)(-E_6-E_8-E_{11}+E_2+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_4^- f_5^- f_{11}^- f_8^+ f_9^+ - f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ f_9^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_{11}^+ - f_1^- f_2^- f_4^- f_7^- f_9^- f_8^+ f_{11}^+}{(-E_1-E_2+E_3+E_8)(-E_2-E_4+E_6+E_8)(-E_4-E_5-E_{11}+E_7+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_3^- f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_{12}^+ - f_1^- f_2^- f_5^- f_6^- f_{11}^- f_8^+ f_{12}^+ + f_3^- f_6^- f_7^- f_8^- f_9^- f_{12}^- f_2^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_{12}^- f_8^+ + f_1^- f_2^- f_5^- f_6^- f_9^- f_8^+ f_{12}^+ - f_3^- f_5^- f_6^- f_8^- f_9^- f_2^+ f_{12}^+ + f_1^- f_2^- f_6^- f_7^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+}{(-E_3-E_8+E_1+E_2)(-E_6-E_8+E_2+E_4)(-E_5-E_6+E_7+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)}\\
\frac{+f_1^- f_2^- f_4^- f_5^- f_{11}^- f_8^+ f_{12}^+ - f_3^- f_4^- f_5^- f_8^- f_{11}^- f_2^+ f_{12}^+ + f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ - f_1^- f_2^- f_4^- f_7^- f_{11}^- f_{12}^- f_8^+ + f_1^- f_2^- f_4^- f_7^- f_9^- f_{12}^- f_8^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- f_2^+ - f_1^- f_2^- f_4^- f_5^- f_9^- f_8^+ f_{12}^+ + f_3^- f_4^- f_5^- f_8^- f_9^- f_2^+ f_{12}^+}{(-E_1-E_2+E_3+E_8)(-E_2-E_4+E_6+E_8)(-E_2-E_4-E_5+E_7+E_8+E_{12})(-E_2-E_4+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)}\\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_5^+ f_{11}^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_5+E_{10})(-E_1-E_2-E_7-E_9+E_3+E_4+E_5+E_{11})(-E_2-E_7-E_9+E_5+E_6+E_{11})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_5+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_1+E_6+E_{11})(-E_2-E_9+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_5^+ - f_1^- f_2^- f_3^- f_7^- f_9^- f_{12}^- f_5^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_5+E_{10})(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_2+E_9)}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- - f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- + f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^-}{(-E_1-E_2+E_3+E_8)(-E_3-E_5-E_{10}+E_1+E_2+E_7)(-E_{10}-E_{12}+E_2+E_4)(-E_3-E_{10}-E_{12}+E_1+E_2+E_6)(-E_2-E_9+E_{11}+E_{12})}
\end{array}\right.$$

$$-\frac{1}{4}\{1,2|V|3,12\}\{3,4|V|1,6\}\{5,6|V|7,4\}\{7,8|V|9,2\}\{9,10|V|11,8\}\{11,12|V|5,10\}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_{10}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_8^- f_{10}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- + f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- + f_1^- f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^- + f_1^- f_2^- f_3^- f_5^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_5+E_1+E_7)(-E_3-E_5-E_8+E_1+E_2+E_9)(-E_3-E_5-E_{10}+E_1+E_2+E_{11})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_{10}^- f_9^+ + f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_9^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_9^+ - f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_9^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_5+E_1+E_7)(-E_3-E_5-E_8+E_1+E_2+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_8+}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- - f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- - f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{10}^- - f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- + f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^- - f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{11}^- + f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{11}^- + f_1^- f_2^- f_3^- f_6^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_7+E_3+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_1-E_2+E_3+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+ + f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_9^+ - f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_9^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_7+E_3+E_5)(-E_7-E_8+E_2+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_7-E_8+E_3+}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^+ - f_1^- f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{11}^+ + f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^+ - f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_5+E_1+E_7)(-E_3-E_5-E_{10}+E_1+E_2+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_5-E_{10}+E}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^+ + f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_7+E_3+E_5)(-E_7-E_{10}+E_2+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_1-E_7-E_{10}+E_3+E}$$

$$\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^- - f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- + f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{12}^- + f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- - f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- + f_1^- f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- - f_1^- f_3^- f_4^- f_5^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_5+E_1+E_7)(-E_3-E_{12}+E_1+E_2)(-E_5-E_8+E_9+E_{12})(-E_5-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^- + f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^- + f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- - f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- + f_1^- f_3^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- - f_1^- f_3^- f_6^- f_7^-}{(-E_1-E_6+E_3+E_4)(-E_1-E_7+E_3+E_5)(-E_3-E_{12}+E_1+E_2)(-E_1-E_7-E_8+E_3+E_9+E_{12})(-E_1-E_7-E_{10}+E_3+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+ + f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^- f_6^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_{11}^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_6^+ - f_1^- f_2^- f_5^- f_6^- f_8^- f_{10}^- f_4^+ + f_2^- f_3^- f_4^- f_5^- f_8^- f_{10}^- f_6^+ + f_1^- f_2^- f_5^- f_6^-}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_4+E_7)(-E_5-E_6-E_8+E_2+E_4+E_9)(-E_2-E_4-E_{11}+E_5+E_6+E_{10})(-E_2-E_4+E_6+E_{12})}$$

$$\frac{+f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_9^+ - f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+ f_9^+ - f_1^- f_5^- f_6^- f_8^- f_{10}^- f_4^+ f_9^+ + f_3^- f_4^- f_5^- f_8^- f_{10}^- f_6^+ f_9^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_4+E_7)(-E_5-E_6-E_8+E_2+E_4+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_8+}$$

$$\frac{+f_2^- f_3^- f_4^- f_7^- f_9^- f_{11}^- f_6^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_{11}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ + f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ + f_1^- f_2^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_6^- f_7^- f_8^- f_{10}^- f_4^+ + f_2^- f_3^- f_4^- f_7^-}{(-E_3-E_4+E_1+E_6)(-E_4-E_7+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_7+E_{10})(-E_2-E_4+E_6+E_{12})}$$

$$\frac{+f_1^- f_6^- f_7^- f_8^- f_{10}^- f_4^+ f_9^+ - f_1^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+ f_9^+ + f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_1-E_6+E_3+E_4)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_4-E_7-E_8+E_6+}$$

$$\frac{+f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{11}^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_6^+ f_{11}^+ + f_3^- f_4^- f_5^- f_8^- f_{10}^- f_6^+ f_{11}^+ - f_1^- f_5^- f_6^- f_8^- f_{10}^- f_4^+ f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_4+E_7)(-E_5-E_6-E_{10}+E_2+E_4+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_5-E_{10}+E}$$

$$\frac{+f_1^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ + f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+ f_{11}^+ - f_1^- f_6^- f_7^- f_8^- f_{10}^- f_4^+ f_{11}^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_4-E_7+E_5+E_6)(-E_7-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_4-E_7-E_{10}+E_6+E}$$

$$\frac{+f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_1^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_5^- f_6^- f_8^-}{(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_4+E_7)(-E_6-E_{12}+E_2+E_4)(-E_9-E_{12}+E_5+E_8)(-E_{11}-E_{12}+E_5+E_{10})}$$

$$\frac{+f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ + f_1^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+ - f_3^- f_4^- f_7^- f_9^-}{(-E_3-E_4+E_1+E_6)(-E_4-E_7+E_5+E_6)(-E_6-E_{12}+E_2+E_4)(-E_6-E_9-E_{12}+E_4+E_7+E_8)(-E_6-E_{11}-E_{12}+E_4+E_7+E_{10})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_9^- f_{10}^- f_8^+ - f_1^- f_2^- f_3^- f_4^- f_9^- f_{11}^- f_8^+ + f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^- f_8^+ - f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_2-E_9+E_3+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_1-E_2+}$$

$$\frac{+f_1^- f_2^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ - f_2^- f_3^- f_4^- f_9^- f_{10}^- f_6^+ f_8^+ + f_2^- f_3^- f_4^- f_9^- f_{11}^- f_6^+ f_8^+ - f_1^- f_2^- f_6^- f_9^- f_{11}^- f_4^+ f_8^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_4-E_9+E_5+E_6+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_4+}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{10}^+ - f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{10}^+ - f_1^- f_2^- f_3^- f_4^- f_8^- f_{11}^- f_{10}^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_2-E_{11}+E_3+E_5+E_{10})(-E_2-E_{11}+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_1-E_2+}$$

$$\frac{+f_1^- f_2^- f_6^- f_8^- f_{11}^- f_4^+ f_{10}^+ + f_2^- f_3^- f_4^- f_9^- f_{11}^- f_6^+ f_{10}^+ - f_2^- f_3^- f_4^- f_8^- f_{11}^- f_6^+ f_{10}^+ - f_1^- f_2^- f_6^- f_9^- f_{11}^- f_4^+ f_{10}^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_4-E_{11}+E_5+E_6+E_{10})(-E_2-E_{11}+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_2-E_4+}$$

$$\frac{+f_1^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_8^+ + f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_1^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_9-E_{12}+E_5+E_8)(-E_3-E_9-E_{12}+E_1+}$$

$$\frac{+f_1^- f_3^- f_6^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_1^- f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_1^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_{10}^+ + f_1^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_{10}^+}{(-E_1-E_6+E_3+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_{11}-E_{12}+E_5+E_{10})(-E_3-E_{11}-E_{12}+E_1+}$$

$$\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+ + f_1^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ f_8^+ - f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_6^+ f_8^+ - f_1^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+}{(-E_3-E_4+E_1+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_6-E_{12}+E_2+E_4)(-E_9-E_{12}+E_5+E_8)(-E_6-E_9-E_{12}+E_4+}$$

$$\frac{+f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ - f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ - f_1^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ + f_1^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ f_{10}^+}{(-E_3-E_4+E_1+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_6-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_5+E_{10})(-E_6-E_{11}-E_{12}+E_4+}$$

$$\frac{+f_1^- f_2^- f_4^- f_7^- f_8^- f_{10}^- f_5^+ + f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_7^+ - f_2^- f_3^- f_4^- f_5^- f_8^- f_{10}^- f_7^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_7^+ + f_1^- f_2^- f_6^- f_7^- f_9^- f_{10}^- f_5^+ - f_1^- f_2^- f_4^- f_7^- f_9^- f_{10}^- f_5^+ + f_2^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_7^+ - f_1^- f_2^- f_6^- f_7^- f_8^- f_{10}^- f_5^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^- f_7^+ + f_1^- f_2^- f_4^- f_7^- f_9^- f_{11}^- f_5^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_{11}^- f_5^+ + f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- f_7^+ + f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_5^+ + f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_7^+ - f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_7^+ - f_1^- f_2^- f_4^- f_7^-}{(-E_1-E_7+E_3+E_5)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_2-E_5+E_7+E_{12})}$$

$$\frac{+f_1^- f_6^- f_7^- f_8^- f_{10}^- f_5^+ f_9^+ + f_3^- f_5^- f_6^- f_8^- f_{11}^- f_7^+ f_9^+ - f_1^- f_6^- f_7^- f_8^- f_{11}^- f_5^+ f_9^+ + f_1^- f_4^- f_7^- f_8^- f_{11}^- f_5^+ f_9^+ - f_3^- f_4^- f_5^- f_8^- f_{11}^- f_7^+ f_9^+ - f_1^- f_4^- f_7^- f_8^- f_{10}^- f_5^+ f_9^+ + f_3^- f_4^- f_5^- f_8^- f_{10}^- f_7^+ f_9^+ - f_3^- f_5^- f_6^- f_8^-}{(-E_1-E_7+E_3+E_5)(-E_5-E_6+E_4+E_7)(-E_7-E_8+E_2+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_8+E_9+E_{12})}$$

$$\frac{+f_3^- f_5^- f_6^- f_8^- f_{10}^- f_7^+ f_{11}^+ + f_1^- f_6^- f_7^- f_9^- f_{10}^- f_5^+ f_{11}^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^- f_7^+ f_{11}^+ - f_1^- f_4^- f_7^- f_9^- f_{10}^- f_5^+ f_{11}^+ - f_1^- f_6^- f_7^- f_8^- f_{10}^- f_5^+ f_{11}^+ - f_3^- f_4^- f_5^- f_8^- f_{10}^- f_7^+ f_{11}^+ + f_1^- f_4^- f_7^- f_8^- f_{10}^- f_5^+ f_{11}^+ + f_3^- f_4^- f_5^- f_9^-}{(-E_3-E_5+E_1+E_7)(-E_5-E_6+E_4+E_7)(-E_7-E_{10}+E_2+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_1^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_5^+ + f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^- f_7^+ + f_1^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^- f_5^+ + f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_5^+ - f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{12}^- f_7^+ - f_1^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^- f_5^+ + f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_7^+ - f_1^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_5^+ + f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_7^+ - f_1^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- f_5^+ + f_1^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_5^+ - f_3^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_7^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_7^+ + f_1^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_5^+ - f_3^- f_5^- f_6^- f_8^-}{(-E_3-E_5+E_1+E_7)(-E_4-E_7+E_5+E_6)(-E_7-E_{12}+E_2+E_5)(-E_9-E_{12}+E_5+E_8)(-E_5-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_9^- f_{10}^- f_5^+ f_8^+ - f_3^- f_4^- f_5^- f_8^- f_{10}^- f_2^+ f_9^+ - f_3^- f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_9^+ - f_1^- f_2^- f_6^- f_9^- f_{10}^- f_5^+ f_8^+ - f_1^- f_2^- f_4^- f_9^- f_{11}^- f_5^+ f_8^+ + f_3^- f_5^- f_6^- f_8^- f_{10}^- f_2^+ f_9^+ + f_1^- f_2^- f_6^- f_9^- f_{11}^- f_5^+ f_8^+ + f_3^- f_4^- f_5^- f_8^-}{(-E_1-E_2-E_9+E_3+E_5+E_8)(-E_2-E_4-E_9+E_5+E_6+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_8+E_9+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^- f_2^+ - f_1^- f_2^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ + f_1^- f_2^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^- f_2^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ + f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ - f_3^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- f_2^+ + f_1^- f_2^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_2^+ + f_1^- f_2^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^+ + f_3^- f_6^- f_7^- f_8^-}{(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_2+E_{11})(-E_3-E_{12}+E_1+E_2)(-E_2-E_4+E_6+E_{12})(-E_7-E_{12}+E_2+E_5)}$$

$$\frac{+f_1^- f_2^- f_4^- f_9^- f_{10}^- f_8^+ f_{12}^+ - f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_2^+ f_8^+ + f_1^- f_2^- f_6^- f_9^- f_{11}^- f_8^+ f_{12}^+ + f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_2^+ f_8^+ - f_1^- f_2^- f_4^- f_9^- f_{11}^- f_8^+ f_{12}^+ - f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_2^+ f_8^+ + f_3^- f_6^- f_9^- f_{10}^- f_{12}^- f_2^+ f_8^+ - f_1^- f_2^- f_6^- f_9^-}{(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_1-E_2+E_3+E_{12})(-E_2-E_4+E_6+E_{12})(-E_9-E_{12}+E_5+E_8)}$$

$$\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_7^+ f_8^+ + f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_7^+ f_8^+ + f_1^- f_4^- f_7^- f_8^- f_{11}^- f_9^+ f_{12}^+ - f_1^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ f_{12}^+ - f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_7^+ f_8^+ - f_3^- f_6^- f_9^- f_{10}^- f_{12}^- f_7^+ f_8^+ + f_1^- f_6^- f_7^- f_8^- f_{10}^- f_9^+ f_{12}^+ - f_1^- f_4^- f_7^- f_8^-}{(-E_7-E_8+E_2+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_5+E_8)(-E_3-E_9-E_{12}+E_1+E_7+E_8)(-E_4-E_7-E_8+E_6+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_6^- f_8^- f_{11}^- f_5^+ f_{10}^+ - f_1^- f_2^- f_4^- f_8^- f_{11}^- f_5^+ f_{10}^+ + f_1^- f_2^- f_4^- f_9^- f_{11}^- f_5^+ f_{10}^+ + f_3^- f_4^- f_5^- f_8^- f_{10}^- f_2^+ f_{11}^+ - f_3^- f_5^- f_6^- f_8^- f_{10}^- f_2^+ f_{11}^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_2^+ f_{11}^+ - f_1^- f_2^- f_6^- f_9^- f_{11}^- f_5^+ f_{10}^+ + f_3^- f_5^- f_6^- f_9^-}{(-E_1-E_2-E_{11}+E_3+E_5+E_{10})(-E_5-E_6-E_{10}+E_2+E_4+E_{11})(-E_2-E_{11}+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_2^+ f_{10}^+ - f_1^- f_2^- f_4^- f_8^- f_{11}^- f_{10}^+ f_{12}^+ + f_1^- f_2^- f_6^- f_8^- f_{11}^- f_{10}^+ f_{12}^+ - f_1^- f_2^- f_6^- f_9^- f_{11}^- f_{10}^+ f_{12}^+ - f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_2^+ f_{10}^+ + f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_2^+ f_{10}^+ + f_1^- f_2^- f_4^- f_9^- f_{11}^- f_{10}^+ f_{12}^+ - f_3^- f_6^- f_8^- f_{11}^-}{(-E_2-E_{11}+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_3-E_{12}+E_1+E_2)(-E_6-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_5+E_{10})}$$

$$\frac{+f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+ f_{12}^+ - f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_7^+ f_{10}^+ + f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_7^+ f_{10}^+ - f_1^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+ f_{12}^+ - f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_7^+ f_{10}^+ + f_3^- f_6^- f_8^- f_{11}^- f_{12}^- f_7^+ f_{10}^+ + f_1^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^+ f_{12}^+ - f_1^- f_6^- f_7^- f_8^-}{(-E_7-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_5+E_{10})(-E_1-E_7-E_{10}+E_3+E_{11}+E_{12})(-E_6-E_{11}-E_{12}+E_4+E_7+E_{10})}$$

$$\frac{+f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^- f_2^+ - f_1^- f_2^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_4^- f_5^- f_8^- f_{10}^- f_{12}^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_2^+ + f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+ + f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_2^+ - f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{12}^- f_2^+ - f_1^- f_2^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_2^+ - f_1^- f_2^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^+ + f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_2^+ + f_1^- f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+ + f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_2^+ + f_1^- f_2^- f_4^- f_5^- f_9^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_5^- f_9^-}{(-E_3-E_{12}+E_1+E_2)(-E_6-E_{12}+E_2+E_4)(-E_2-E_5+E_7+E_{12})(-E_5-E_8+E_9+E_{12})(-E_5-E_{10}+E_{11}+E_{12})}$$

$$-\frac{1}{12}\{1,2|V|3,12\}\{3,4|V|5,2\}\{5,6|V|7,4\}\{7,8|V|9,6\}\{9,10|V|11,8\}\{11,12|V|1,10\}$$

$$\frac{+f_2^- f_3^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_4^- f_6^- f_8^- f_{10}^- - f_2^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- - f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^- - f_2^- f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^- + f_1^- f_2^- f_3^- f_4^- f_6^- f_9^- f_{10}^- - f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- + f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_{10}^- + f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- + f_2^- f_3^- f_4^- f_6^- f_8^- f_{10}^- f_{12}^- - f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- + f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- + f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- + f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{11}^- - f_2^- f_3^-}{(-E_2-E_5+E_3+E_4)(-E_2-E_7+E_3+}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- f_{11}^- f_5^+ + f_2^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_5^+ + f_1^- f_2^- f_5^- f_6^- f_9^- f_{11}^- f_4^+ - f_1^- f_3^- f_4^- f_6^- f_9^- f_{11}^- f_5^+ - f_1^- f_2^- f_5^- f_7^- f_9^- f_{11}^- f_4^+ - f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ + f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_5^+ + f_3^- f_4^- f_6^- f_8^- f_{10}^- f_{12}^- f_5^+ + f_1^- f_2^- f_5^- f_6^- f_8^- f_{10}^- f_4^+ - f_1^- f_3^- f_4^- f_6^- f_8^- f_{10}^- f_5^+ - f_2^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^- f_4^+ + f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_4^+ + f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ - f_3^- f_4^-}{(-E_3-E_4+E_2+E_5)(-E_4-E_7+E_5+}$$

$$\frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_7^+ - f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^- f_7^+ + f_3^- f_4^- f_6^- f_8^- f_{10}^- f_{12}^- f_7^+ + f_1^- f_2^- f_5^- f_7^- f_9^- f_{10}^- f_6^+ - f_1^- f_3^- f_4^- f_6^- f_8^- f_{10}^- f_7^+ - f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_7^+ + f_2^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_2^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ - f_1^- f_2^- f_5^- f_7^- f_8^- f_{10}^- f_6^+ - f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^- f_7^+ + f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+ + f_1^- f_2^-}{(-E_3-E_6+E_2+E_7)(-E_5-E_6+E_4+}$$

$$\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{12}^- f_9^+ - f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_9^+ - f_2^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_9^+ + f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_9^+ + f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ + f_2^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_8^+ - f_2^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ + f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ - f_1^- f_2^- f_5^- f_7^- f_9^- f_{10}^- f_8^+ + f_1^- f_2^- f_4^- f_6^- f_9^- f_{11}^- f_8^+ + f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^- f_9^+ - f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ + f_1^- f_3^- f_4^- f_6^- f_8^- f_{10}^- f_9^+ - f_2^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_3^- f_5^-}{(-E_3-E_8+E_2+E_9)(-E_4-E_9+E_5+}$$

$$\frac{+f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^- f_{11}^+ + f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^- f_{11}^+ - f_2^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- f_{10}^+ + f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ + f_2^- f_4^- f_6^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_3^- f_4^- f_6^- f_8^- f_{10}^- f_{12}^- f_{11}^+ - f_2^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_{11}^+ - f_1^- f_2^- f_4^-}{(-E_3-E_{10}+E_2+E_{11})(-E_5-E_{10}+E_4+E_{11})}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^- f_1^+ + f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^- f_1^+ + f_1^- f_2^- f_4^- f_6^- f_8^- f_{10}^- f_{12}^+ - f_1^- f_2^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^+ + f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^- f_1^+ - f_1^- f_2^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_6^- f_8^- f_{10}^- f_{12}^- f_1^+ + f_1^- f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_1^+ - f_1^- f_2^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_1^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_1^+ - f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_1^+ + f_3^- f_5^- f_6^-}{(-E_3-E_{12}+E_1+E_2)(-E_1-E_4+E_5+E}$$

$$+\frac{1}{6}\{1,2|V|1,4\}\{3,4|V|3,6\}\{5,6|V|5,8\}\{7,8|V|7,10\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_1^- f_3^- f_5^- f_7^- f_9^- f_{11}^- \begin{pmatrix} \frac{+f_2^-}{(-E_2+E_4)(-E_2+E_6)(-E_2+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_4^-}{(-E_4+E_2)(-E_4+E_6)(-E_4+E_8)(-E_4+E_{10})(-E_4+E_{12})} \\ \frac{+f_6^-}{(-E_6+E_2)(-E_6+E_4)(-E_6+E_8)(-E_6+E_{10})(-E_6+E_{12})} \\ \frac{+f_8^-}{(-E_8+E_2)(-E_8+E_4)(-E_8+E_6)(-E_8+E_{10})(-E_8+E_{12})} \\ \frac{+f_{10}^-}{(-E_{10}+E_2)(-E_{10}+E_4)(-E_{10}+E_6)(-E_{10}+E_8)(-E_{10}+E_{12})} \\ \frac{+f_{12}^-}{(-E_{12}+E_2)(-E_{12}+E_4)(-E_{12}+E_6)(-E_{12}+E_8)(-E_{12}+E_{10})} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|3,6\}\{7,8|V|7,10\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_1^- f_6^- f_7^- f_9^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- -f_2^- f_5^-}{(-E_2+E_4)(-E_3+E_5)(-E_2+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_4^- f_5^- -f_3^- f_4^-}{(-E_4+E_2)(-E_5+E_3)(-E_4+E_8)(-E_4+E_{10})(-E_4+E_{12})} \\ \frac{+f_3^- f_8^- -f_5^- f_8^-}{(-E_3+E_5)(-E_8+E_2)(-E_8+E_4)(-E_8+E_{10})(-E_8+E_{12})} \\ \frac{+f_5^- f_{10}^- -f_3^- f_{10}^-}{(-E_5+E_3)(-E_{10}+E_2)(-E_{10}+E_4)(-E_{10}+E_8)(-E_{10}+E_{12})} \\ \frac{+f_3^- f_{12}^- -f_5^- f_{12}^-}{(-E_3+E_5)(-E_{12}+E_2)(-E_{12}+E_4)(-E_{12}+E_8)(-E_{12}+E_{10})} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|7,6\}\{7,8|V|3,8\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_1^- f_6^- f_8^- f_9^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^-}{(-E_2+E_4)(-E_3+E_5)(-E_3+E_7)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^-}{(-E_4+E_2)(-E_3+E_5)(-E_3+E_7)(-E_4+E_{10})(-E_4+E_{12})} \\ \frac{+f_2^- f_5^-}{(-E_2+E_4)(-E_5+E_3)(-E_5+E_7)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_4^- f_5^-}{(-E_4+E_2)(-E_5+E_3)(-E_5+E_7)(-E_4+E_{10})(-E_4+E_{12})} \\ \frac{+f_2^- f_7^-}{(-E_2+E_4)(-E_7+E_3)(-E_7+E_5)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_4^- f_7^-}{(-E_4+E_2)(-E_7+E_3)(-E_7+E_5)(-E_4+E_{10})(-E_4+E_{12})} \\ \frac{+f_3^- f_{10}^-}{(-E_3+E_5)(-E_3+E_7)(-E_{10}+E_2)(-E_{10}+E_4)(-E_{10}+E_{12})} \\ \frac{+f_3^- f_{12}^-}{(-E_3+E_5)(-E_3+E_7)(-E_{12}+E_2)(-E_{12}+E_4)(-E_{12}+E_{10})} \\ \frac{+f_5^- f_{10}^-}{(-E_5+E_3)(-E_5+E_7)(-E_{10}+E_2)(-E_{10}+E_4)(-E_{10}+E_{12})} \\ \frac{+f_5^- f_{12}^-}{(-E_5+E_3)(-E_5+E_7)(-E_{12}+E_2)(-E_{12}+E_4)(-E_{12}+E_{10})} \\ \frac{+f_7^- f_{10}^-}{(-E_7+E_3)(-E_7+E_5)(-E_{10}+E_2)(-E_{10}+E_4)(-E_{10}+E_{12})} \\ \frac{+f_7^- f_{12}^-}{(-E_7+E_3)(-E_7+E_5)(-E_{12}+E_2)(-E_{12}+E_4)(-E_{12}+E_{10})} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|3,8\}\{7,8|V|7,6\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_1^- f_7^- f_9^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_8^- -f_2^- f_5^- f_8^- +f_2^- f_5^- f_6^- -f_2^- f_3^- f_6^-}{(-E_2+E_4)(-E_3+E_5)(-E_8+E_6)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_8^- -f_3^- f_4^- f_6^- +f_4^- f_5^- f_6^- -f_4^- f_5^- f_8^-}{(-E_4+E_2)(-E_3+E_5)(-E_8+E_6)(-E_4+E_{10})(-E_4+E_{12})} \\ \frac{+f_3^- f_6^- f_{10}^- -f_3^- f_8^- f_{10}^- +f_5^- f_8^- f_{10}^- -f_5^- f_6^- f_{10}^-}{(-E_3+E_5)(-E_6+E_8)(-E_{10}+E_2)(-E_{10}+E_4)(-E_{10}+E_{12})} \\ \frac{+f_3^- f_6^- f_{12}^- +f_5^- f_8^- f_{12}^- -f_5^- f_6^- f_{12}^- -f_3^- f_8^- f_{12}^-}{(-E_3+E_5)(-E_6+E_8)(-E_{12}+E_2)(-E_{12}+E_4)(-E_{12}+E_{10})} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|7,10\}\{7,8|V|3,6\}\{9,10|V|9,12\}\{11,12|V|11,2\}f_1^- f_9^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_5^- f_7^- f_8^- -f_2^- f_3^- f_7^- f_5^+ -f_2^- f_5^- f_6^- f_8^- +f_2^- f_3^- f_5^- f_6^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_2+E_3)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_2^- f_3^- f_6^- f_7^- -f_2^- f_7^- f_8^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_4^- f_5^- f_6^- f_8^- +f_3^- f_4^- f_7^- f_5^+ -f_4^- f_5^- f_7^- f_8^- -f_3^- f_4^- f_5^- f_6^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_8+E_3+E_4)(-E_4+E_{10})(-E_4+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_7^- -f_4^- f_7^- f_8^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_4+E_{10})(-E_4+E_{12})} \\ \frac{+f_2^- f_3^- f_7^- f_8^- -f_2^- f_3^- f_6^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_3+E_6)(-E_2+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_8^- -f_3^- f_4^- f_6^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_3+E_6)(-E_4+E_{10})(-E_4+E_{12})} \\ \frac{+f_3^- f_5^- f_6^- f_7^+ -f_5^- f_6^- f_8^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_3-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})} \\ \frac{+f_5^- f_7^- f_8^- f_3^+ -f_5^- f_6^- f_8^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_3+E_6)(-E_5-E_8+E_3+E_{10})(-E_5-E_8+E_3+E_{12})} \\ \frac{+f_7^- f_8^- f_{10}^- f_6^+ -f_3^- f_6^- f_7^- f_{10}^-}{(-E_7-E_8+E_3+E_6)(-E_{10}+E_2)(-E_{10}+E_4)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_{12})} \\ \frac{+f_3^- f_6^- f_{10}^- f_8^+ -f_3^- f_7^- f_8^- f_{10}^-}{(-E_3-E_6+E_7+E_8)(-E_{10}+E_2)(-E_{10}+E_4)(-E_3-E_{10}+E_5+E_8)(-E_{10}+E_{12})} \\ \frac{+f_7^- f_8^- f_{12}^- f_6^+ -f_3^- f_6^- f_7^- f_{12}^-}{(-E_7-E_8+E_3+E_6)(-E_{12}+E_2)(-E_{12}+E_4)(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_{10})} \\ \frac{+f_3^- f_7^- f_8^- f_{12}^- -f_3^- f_6^- f_{12}^- f_8^+}{(-E_7-E_8+E_3+E_6)(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_8)(-E_{12}+E_{10})} \\ \frac{+f_5^- f_6^- f_8^- f_{10}^- +f_3^- f_7^- f_{10}^- f_5^+ -f_3^- f_5^- f_6^- f_{10}^- -f_5^- f_7^- f_8^- f_{10}^-}{(-E_{10}+E_2)(-E_{10}+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_3+E_{10})(-E_{10}+E_{12})} \\ \frac{+f_3^- f_7^- f_{12}^- f_5^+ -f_5^- f_7^- f_8^- f_{12}^- +f_5^- f_6^- f_8^- f_{12}^- -f_3^- f_5^- f_6^- f_{12}^-}{(-E_{12}+E_2)(-E_{12}+E_4)(-E_7-E_{12}+E_5+E_6)(-E_3-E_{12}+E_5+E_8)(-E_{12}+E_{10})} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|3,6\}\{7,8|V|9,12\}\{9,10|V|7,10\}\{11,12|V|11,2\}f_1^- f_6^- f_{10}^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_9^- +f_2^- f_5^- f_7^- -f_2^- f_3^- f_7^- -f_2^- f_5^- f_9^-}{(-E_2+E_4)(-E_3+E_5)(-E_2+E_8)(-E_9+E_7)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_9^- +f_4^- f_5^- f_7^- -f_3^- f_4^- f_7^- -f_4^- f_5^- f_9^-}{(-E_4+E_2)(-E_3+E_5)(-E_4+E_8)(-E_9+E_7)(-E_4+E_{12})} \\ \frac{+f_3^- f_7^- f_8^- -f_3^- f_8^- f_9^- -f_5^- f_7^- f_8^- +f_5^- f_8^- f_9^-}{(-E_3+E_5)(-E_8+E_2)(-E_8+E_4)(-E_7+E_9)(-E_8+E_{12})} \\ \frac{+f_3^- f_9^- f_{12}^- +f_5^- f_7^- f_{12}^- -f_5^- f_9^- f_{12}^- -f_3^- f_7^- f_{12}^-}{(-E_3+E_5)(-E_9+E_7)(-E_{12}+E_2)(-E_{12}+E_4)(-E_{12}+E_8)} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,6\}\{7,8|V|3,10\}\{9,10|V|9,8\}\{11,12|V|11,2\}f_1^- f_6^- f_9^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_{10}^- -f_2^- f_3^- f_8^-}{(-E_2+E_4)(-E_3+E_5)(-E_3+E_7)(-E_{10}+E_8)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_{10}^- -f_3^- f_4^- f_8^-}{(-E_4+E_2)(-E_3+E_5)(-E_3+E_7)(-E_{10}+E_8)(-E_4+E_{12})} \\ \frac{+f_2^- f_5^- f_8^- -f_2^- f_5^- f_{10}^-}{(-E_2+E_4)(-E_5+E_3)(-E_5+E_7)(-E_8+E_{10})(-E_2+E_{12})} \\ \frac{+f_4^- f_5^- f_8^- -f_4^- f_5^- f_{10}^-}{(-E_4+E_2)(-E_5+E_3)(-E_5+E_7)(-E_8+E_{10})(-E_4+E_{12})} \\ \frac{+f_2^- f_7^- f_{10}^- -f_2^- f_7^- f_8^-}{(-E_2+E_4)(-E_7+E_3)(-E_7+E_5)(-E_{10}+E_8)(-E_2+E_{12})} \\ \frac{+f_4^- f_7^- f_{10}^- -f_4^- f_7^- f_8^-}{(-E_4+E_2)(-E_7+E_3)(-E_7+E_5)(-E_{10}+E_8)(-E_4+E_{12})} \\ \frac{+f_3^- f_{10}^- f_{12}^- -f_3^- f_8^- f_{12}^-}{(-E_3+E_5)(-E_3+E_7)(-E_{10}+E_8)(-E_{12}+E_2)(-E_{12}+E_4)} \\ \frac{+f_5^- f_{10}^- f_{12}^- -f_5^- f_8^- f_{12}^-}{(-E_5+E_3)(-E_5+E_7)(-E_{10}+E_8)(-E_{12}+E_2)(-E_{12}+E_4)} \\ \frac{+f_7^- f_8^- f_{12}^- -f_7^- f_{10}^- f_{12}^-}{(-E_7+E_3)(-E_7+E_5)(-E_8+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|7,12\}\{7,8|V|9,8\}\{9,10|V|3,6\}\{11,12|V|11,2\}f_1^- f_8^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_5^- f_6^- f_{10}^- -f_2^- f_3^- f_5^- f_6^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_5-E_{10}+E_2+E_3)(-E_2+E_{12})} \\ \frac{+f_2^- f_3^- f_7^- f_5^+ -f_2^- f_5^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_2+E_{12})} \\ \frac{+f_2^- f_7^- f_{10}^- f_6^+ -f_2^- f_3^- f_6^- f_7^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_3+E_6)(-E_2+E_{12})} \\ \frac{+f_4^- f_5^- f_6^- f_{10}^- -f_3^- f_4^- f_5^- f_6^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_6+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_4+E_{12})} \\ \frac{+f_4^- f_5^- f_7^- f_{10}^- -f_3^- f_4^- f_7^- f_5^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_4+E_{12})} \\ \frac{+f_4^- f_7^- f_{10}^- f_6^+ -f_3^- f_4^- f_6^- f_7^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_3+E_6)(-E_4+E_{12})} \\ \frac{+f_2^- f_5^- f_9^- f_{10}^- -f_2^- f_3^- f_9^- f_5^+}{(-E_2+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_5-E_{10}+E_2+E_3)(-E_2+E_{12})} \\ \frac{+f_2^- f_9^- f_{10}^- f_6^+ -f_2^- f_3^- f_6^- f_9^-}{(-E_2+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_9-E_{10}+E_3+E_6)(-E_2+E_{12})} \\ \frac{+f_4^- f_5^- f_9^- f_{10}^- -f_3^- f_4^- f_9^- f_5^+}{(-E_4+E_2)(-E_4-E_9+E_5+E_6)(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_4+E_{12})} \\ \frac{+f_4^- f_9^- f_{10}^- f_6^+ -f_3^- f_4^- f_6^- f_9^-}{(-E_4+E_2)(-E_4-E_9+E_5+E_6)(-E_9+E_7)(-E_9-E_{10}+E_3+E_6)(-E_4+E_{12})} \\ \frac{+f_2^- f_3^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_7-E_{10}+E_3+E_6)(-E_2+E_{12})} \\ \frac{+f_2^- f_3^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_9+E_7)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_{10}^-}{(-E_4+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_3+E_6)(-E_4+E_{12})} \\ \frac{+f_3^- f_4^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_4+E_{12})} \\ \frac{+f_2^- f_3^- f_6^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_3-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_4+E_{12})} \\ \frac{+f_5^- f_6^- f_{10}^- f_7^+ -f_3^- f_5^- f_6^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_7+E_9)(-E_7-E_{10}+E_3+E_6)(-E_5-E_6+E_7+E_{12})} \\ \frac{+f_3^- f_5^- f_6^- f_9^+ -f_5^- f_6^- f_{10}^- f_9^+}{(-E_5-E_6+E_2+E_9)(-E_5-E_6+E_4+E_9)(-E_9+E_7)(-E_3-E_6+E_9+E_{10})(-E_5-E_6+E_9+E_{12})} \\ \frac{+f_5^- f_7^- f_{10}^- f_3^+}{(-E_7+E_9)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_3+E_6)(-E_5-E_{10}+E_3+E_{12})} \\ \frac{+f_5^- f_9^- f_{10}^- f_3^+}{(-E_9+E_7)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_3+E_6)(-E_5-E_{10}+E_3+E_{12})} \\ \frac{+f_3^- f_6^- f_7^- f_{12}^- -f_7^- f_{10}^- f_{12}^- f_6^+}{(-E_7+E_9)(-E_3-E_6+E_7+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_7-E_{12}+E_5+E_6)} \\ \frac{+f_3^- f_7^- f_{10}^- f_{12}^-}{(-E_7+E_9)(-E_7-E_{10}+E_3+E_6)(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_{10})} \\ \frac{+f_3^- f_6^- f_9^- f_{12}^- -f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_9+E_7)(-E_3-E_6+E_9+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{12}+E_5+E_6)} \\ \frac{+f_3^- f_9^- f_{10}^- f_{12}^-}{(-E_9+E_7)(-E_9-E_{10}+E_3+E_6)(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_{10})} \\ \frac{+f_5^- f_7^- f_{10}^- f_{12}^- -f_3^- f_7^- f_{12}^- f_5^+}{(-E_7+E_9)(-E_{12}+E_2)(-E_{12}+E_4)(-E_7-E_{12}+E_5+E_6)(-E_5-E_{10}+E_3+E_{12})} \\ \frac{+f_5^- f_9^- f_{10}^- f_{12}^- -f_3^- f_9^- f_{12}^- f_5^+}{(-E_9+E_7)(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{12}+E_5+E_6)(-E_5-E_{10}+E_3+E_{12})} \\ \frac{+f_5^- f_6^- f_{10}^- f_3^+}{(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_3-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_5-E_{10}+E_3+E_{12})} \\ \frac{+f_3^- f_6^- f_{12}^- f_{10}^+}{(-E_3-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_{10})} \\ \frac{+f_3^- f_5^- f_6^- f_{12}^- -f_5^- f_6^- f_{10}^- f_{12}^-}{(-E_{12}+E_2)(-E_{12}+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_6+E_9+E_{12})(-E_3-E_{12}+E_5+E_{10})} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|3,8\}\{9,10|V|9,6\}\{11,12|V|11,2\}f_1^- f_8^- f_9^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_6^- -f_2^- f_3^- f_{10}^-}{(-E_2+E_4)(-E_3+E_5)(-E_3+E_7)(-E_6+E_{10})(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- -f_3^- f_4^- f_{10}^-}{(-E_4+E_2)(-E_3+E_5)(-E_3+E_7)(-E_6+E_{10})(-E_4+E_{12})} \\ \frac{+f_2^- f_5^- f_6^- -f_2^- f_5^- f_{10}^-}{(-E_2+E_4)(-E_5+E_3)(-E_5+E_7)(-E_6+E_{10})(-E_2+E_{12})} \\ \frac{+f_4^- f_5^- f_{10}^- -f_4^- f_5^- f_6^-}{(-E_4+E_2)(-E_5+E_3)(-E_5+E_7)(-E_{10}+E_6)(-E_4+E_{12})} \\ \frac{+f_2^- f_7^- f_{10}^- -f_2^- f_6^- f_7^-}{(-E_2+E_4)(-E_7+E_3)(-E_7+E_5)(-E_{10}+E_6)(-E_2+E_{12})} \\ \frac{+f_4^- f_7^- f_{10}^- -f_4^- f_6^- f_7^-}{(-E_4+E_2)(-E_7+E_3)(-E_7+E_5)(-E_{10}+E_6)(-E_4+E_{12})} \\ \frac{+f_3^- f_6^- f_{12}^- -f_3^- f_{10}^- f_{12}^-}{(-E_3+E_5)(-E_3+E_7)(-E_6+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)} \\ \frac{+f_5^- f_6^- f_{12}^- -f_5^- f_{10}^- f_{12}^-}{(-E_5+E_3)(-E_5+E_7)(-E_6+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)} \\ \frac{+f_6^- f_7^- f_{12}^- -f_7^- f_{10}^- f_{12}^-}{(-E_7+E_3)(-E_7+E_5)(-E_6+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|7,12\}\{7,8|V|9,6\}\{9,10|V|3,10\}\{11,12|V|11,2\}f_1^- f_{10}^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_5^- f_6^- -f_2^- f_3^- f_7^- f_5^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_3+E_5+E_8)(-E_3+E_9)(-E_2+E_{12})} \\ \frac{+f_2^- f_5^- f_6^- f_8^- -f_2^- f_5^- f_7^- f_8^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_2+E_9)(-E_2+E_{12})} \\ \frac{+f_2^- f_3^- f_6^- f_7^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_2+E_{12})} \\ \frac{+f_2^- f_7^- f_8^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_6+E_9)(-E_2+E_{12})} \\ \frac{+f_2^- f_5^- f_6^- f_9^- -f_2^- f_7^- f_9^- f_5^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_9+E_3)(-E_2-E_9+E_5+E_8)(-E_2+E_{12})} \\ \frac{+f_2^- f_6^- f_7^- f_9^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_9+E_3)(-E_6-E_9+E_7+E_8)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_5^- f_6^- -f_3^- f_4^- f_7^- f_5^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_3+E_9)(-E_4+E_{12})} \\ \frac{+f_4^- f_5^- f_7^- f_8^- -f_4^- f_5^- f_6^- f_8^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_4+E_9)(-E_4+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_7^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_4+E_{12})} \\ \frac{+f_4^- f_7^- f_8^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_6+E_9)(-E_4+E_{12})} \\ \frac{+f_4^- f_5^- f_6^- f_9^- -f_4^- f_7^- f_9^- f_5^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_9+E_3)(-E_4-E_9+E_5+E_8)(-E_4+E_{12})} \\ \frac{+f_4^- f_6^- f_7^- f_9^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_9+E_3)(-E_6-E_9+E_7+E_8)(-E_4+E_{12})} \\ \frac{+f_2^- f_3^- f_6^- f_8^+ -f_2^- f_3^- f_7^- f_8^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_8^+ -f_3^- f_4^- f_7^- f_8^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_4+E_{12})} \\ \frac{+f_2^- f_6^- f_9^- f_8^+ -f_2^- f_7^- f_8^- f_9^-}{(-E_2+E_4)(-E_9+E_3)(-E_2-E_9+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_2+E_{12})} \\ \frac{+f_4^- f_6^- f_9^- f_8^+ -f_4^- f_7^- f_8^- f_9^-}{(-E_4+E_2)(-E_9+E_3)(-E_4-E_9+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_4+E_{12})} \\ \frac{+f_3^- f_5^- f_6^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_5-E_6+E_7+E_{12})} \\ \frac{+f_5^- f_6^- f_8^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{12})} \\ \frac{+f_5^- f_6^- f_9^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_9+E_3)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{12})} \\ \frac{+f_5^- f_6^- f_8^- f_3^+ -f_5^- f_7^- f_8^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_5-E_8+E_3+E_{12})} \\ \frac{+f_3^- f_6^- f_7^- f_{12}^-}{(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_{12}+E_2)(-E_{12}+E_4)(-E_7-E_{12}+E_5+E_6)} \\ \frac{+f_3^- f_7^- f_8^- f_{12}^- -f_3^- f_6^- f_{12}^- f_8^+}{(-E_7-E_8+E_3+E_6)(-E_3+E_9)(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_8)} \\ \frac{+f_7^- f_8^- f_{12}^- f_6^+}{(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_6+E_9)(-E_{12}+E_2)(-E_{12}+E_4)(-E_7-E_{12}+E_5+E_6)} \\ \frac{+f_5^- f_7^- f_8^- f_9^+ -f_5^- f_6^- f_8^- f_9^+}{(-E_9+E_3)(-E_5-E_8+E_2+E_9)(-E_5-E_8+E_4+E_9)(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{12})} \\ \frac{+f_6^- f_7^- f_9^- f_{12}^-}{(-E_9+E_3)(-E_6-E_9+E_7+E_8)(-E_{12}+E_2)(-E_{12}+E_4)(-E_7-E_{12}+E_5+E_6)} \\ \frac{+f_7^- f_8^- f_9^- f_{12}^- -f_6^- f_9^- f_{12}^- f_8^+}{(-E_9+E_3)(-E_7-E_8+E_6+E_9)(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{12}+E_5+E_8)} \\ \frac{+f_3^- f_5^- f_6^- f_{12}^- -f_3^- f_7^- f_{12}^- f_5^+}{(-E_3+E_9)(-E_{12}+E_2)(-E_{12}+E_4)(-E_5-E_6+E_7+E_{12})(-E_3-E_{12}+E_5+E_8)} \\ \frac{+f_7^- f_9^- f_{12}^- f_5^+ -f_5^- f_6^- f_9^- f_{12}^-}{(-E_9+E_3)(-E_{12}+E_2)(-E_{12}+E_4)(-E_7-E_{12}+E_5+E_6)(-E_9-E_{12}+E_5+E_8)} \\ \frac{+f_5^- f_6^- f_8^- f_{12}^- -f_5^- f_7^- f_8^- f_{12}^-}{(-E_{12}+E_2)(-E_{12}+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_8+E_3+E_{12})(-E_5-E_8+E_9+E_{12})} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|3,8\}\{7,8|V|9,12\}\{9,10|V|7,6\}\{11,12|V|11,2\}f_1^- f_{11}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- - f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_5-E_6-E_7+E_2+E_3+E_9)(-E_2-E_3+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- - f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_4+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_8^- f_9^- - f_2^- f_3^- f_5^- f_7^- f_8^-}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_6^+ + f_2^- f_5^- f_6^- f_9^- f_8^+ - f_2^- f_3^- f_8^- f_9^- f_6^+ - f_2^- f_5^- f_6^- f_7^- f_8^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_2-E_6+E_8+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- - f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_6^+ + f_4^- f_5^- f_6^- f_7^- f_8^+ - f_3^- f_4^- f_7^- f_8^- f_6^+ - f_4^- f_5^- f_6^- f_9^- f_8^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_4-E_6+E_8+E_{10})(-E_4+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_9^- f_7^+}{(-E_2+E_4)(-E_2-E_3-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_9^+ - f_2^- f_3^- f_9^- f_6^+ f_7^+}{(-E_2+E_4)(-E_5-E_6-E_7+E_2+E_3+E_9)(-E_2-E_9+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_7^+}{(-E_4+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_4+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_9^+ - f_3^- f_4^- f_9^- f_6^+ f_7^+}{(-E_4+E_2)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_4-E_9+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_9^- f_{10}^- - f_2^- f_3^- f_8^- f_9^- f_{10}^+ - f_2^- f_5^- f_7^- f_8^- f_{10}^- + f_2^- f_3^- f_7^- f_8^- f_{10}^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_2+E_3)(-E_8-E_{10}+E_2+E_6)(-E_2+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_7^+ - f_2^- f_3^- f_9^- f_7^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{10}+E_6+E_7)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^+ - f_4^- f_5^- f_8^- f_9^- f_{10}^- + f_4^- f_5^- f_7^- f_8^- f_{10}^- - f_3^- f_4^- f_7^- f_8^- f_{10}^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_4+E_6)(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_7^+ f_{10}^+ - f_4^- f_5^- f_9^- f_{10}^- f_7^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_4+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{10}^- - f_2^- f_3^- f_6^- f_9^- f_{10}^+ + f_2^- f_3^- f_6^- f_7^- f_{10}^+ - f_2^- f_5^- f_6^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_2-E_6+E_8+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_2+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_{10}^- - f_3^- f_4^- f_6^- f_9^- f_{10}^+ + f_3^- f_4^- f_6^- f_7^- f_{10}^+ - f_4^- f_5^- f_6^- f_7^- f_{10}^-}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_4-E_6+E_8+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_4+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_3^+ f_9^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_6-E_7+E_2+E_3+E_9)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_6-E_7+E_9+E_{10})(-E_5-E_6-E_7+E_3+E_9+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_8^- f_9^+ - f_3^- f_7^- f_8^- f_6^+ f_9^+}{(-E_5-E_6+E_3+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_6-E_7+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_8^- f_9^+}{(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_5+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_{10}^- f_3^+ - f_5^- f_6^- f_9^- f_{10}^- f_3^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_6-E_7+E_9+E_{10})(-E_5-E_{10}+E_3+E_{12})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_3^+ - f_5^- f_7^- f_8^- f_{10}^- f_3^+}{(-E_3-E_8+E_5+E_6)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_5-E_9-E_{10}+E_3+E_7+E_8)(-E_5-E_{10}+E_3+E_{12})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_6^+ - f_3^- f_8^- f_9^- f_{10}^- f_6^+ - f_5^- f_7^- f_8^- f_{10}^- f_6^+ + f_3^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_5-E_6+E_3+E_8)(-E_8-E_{10}+E_2+E_6)(-E_8-E_{10}+E_4+E_6)(-E_9-E_{10}+E_6+E_7)(-E_8-E_{10}+E_6+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{12}^- - f_3^- f_5^- f_6^- f_7^- f_{12}^-}{(-E_5-E_6+E_3+E_8)(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_9-E_{12}+E_5+E_6+E_7)(-E_3-E_{12}+E_5+E_{10})} \\
\frac{+f_3^- f_5^- f_8^- f_9^- f_{12}^- - f_3^- f_5^- f_7^- f_8^- f_{12}^-}{(-E_3-E_8+E_5+E_6)(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{12}+E_7+E_8)(-E_3-E_{12}+E_5+E_{10})} \\
\frac{+f_3^- f_7^- f_8^- f_{12}^- f_6^+ - f_5^- f_6^- f_7^- f_{12}^- f_8^+ + f_5^- f_6^- f_9^- f_{12}^- f_8^+ - f_3^- f_8^- f_9^- f_{12}^- f_6^+}{(-E_3-E_8+E_5+E_6)(-E_{12}+E_2)(-E_{12}+E_4)(-E_7-E_8+E_9+E_{12})(-E_6-E_{12}+E_8+E_{10})} \\
\frac{+f_5^- f_7^- f_8^- f_{10}^- f_9^+ - f_3^- f_7^- f_8^- f_9^+ f_{10}^+}{(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_9-E_{10}+E_6+E_7)(-E_5-E_9-E_{10}+E_3+E_7+E_8)(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_5^- f_9^- f_{10}^- f_3^+ f_7^+}{(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_6+E_7)(-E_5-E_9-E_{10}+E_3+E_7+E_8)(-E_5-E_{10}+E_3+E_{12})} \\
\frac{+f_3^- f_9^- f_{12}^- f_6^+ f_7^+ - f_5^- f_6^- f_7^- f_{12}^- f_9^+}{(-E_6-E_7+E_9+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_9-E_{12}+E_5+E_6+E_7)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_5^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_3^- f_9^- f_{12}^- f_7^+ f_{10}^+}{(-E_9-E_{10}+E_6+E_7)(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{12}+E_7+E_8)(-E_5-E_{10}+E_3+E_{12})} \\
\frac{+f_3^- f_6^- f_9^- f_{12}^- f_{10}^+ - f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_3^- f_6^- f_7^- f_{12}^- f_{10}^+ + f_5^- f_6^- f_7^- f_{10}^- f_{12}^-}{(-E_9-E_{10}+E_6+E_7)(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_{10})(-E_6-E_{12}+E_8+E_{10})} \\
\frac{+f_3^- f_5^- f_9^- f_{12}^- f_7^+}{(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_9-E_{12}+E_5+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_3-E_{12}+E_5+E_{10})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_{12}^- - f_5^- f_7^- f_8^- f_{10}^- f_{12}^- + f_3^- f_7^- f_8^- f_{12}^- f_{10}^+ - f_3^- f_8^- f_9^- f_{12}^- f_{10}^+}{(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{12}+E_7+E_8)(-E_5-E_{10}+E_3+E_{12})(-E_8-E_{10}+E_6+E_{12})}
\end{array}\right)$$

$$+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|9,6\}\{9,10|V|3,8\}\{11,12|V|11,2\}f_{1}^{-}f_{11}^{-}\left(\begin{array}{c}
\frac{+f_{2}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{7}^{+}-f_{2}^{-}f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}}{(-E_{2}+E_{4})(-E_{3}+E_{5})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{3}-E_{6}+E_{7}+E_{10})(-E_{2}+E_{12})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{9}^{-}f_{7}^{+}-f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}}{(-E_{4}+E_{2})(-E_{3}+E_{5})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{3}-E_{6}+E_{7}+E_{10})(-E_{4}+E_{12})}\\
\frac{+f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{7}^{+}-f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}}{(-E_{2}+E_{4})(-E_{5}+E_{3})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{5}-E_{6}+E_{7}+E_{10})(-E_{2}+E_{12})}\\
\frac{+f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}-f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{7}^{+}}{(-E_{4}+E_{2})(-E_{5}+E_{3})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{5}-E_{6}+E_{7}+E_{10})(-E_{4}+E_{12})}\\
\frac{+f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{+}-f_{2}^{-}f_{3}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}}{(-E_{2}+E_{4})(-E_{3}+E_{5})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{3}-E_{8}+E_{9}+E_{10})(-E_{2}+E_{12})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{+}-f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}}{(-E_{4}+E_{2})(-E_{3}+E_{5})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{3}-E_{8}+E_{9}+E_{10})(-E_{4}+E_{12})}\\
\frac{+f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{+}-f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}}{(-E_{2}+E_{4})(-E_{5}+E_{3})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{5}-E_{8}+E_{9}+E_{10})(-E_{2}+E_{12})}\\
\frac{+f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{9}^{+}-f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}}{(-E_{4}+E_{2})(-E_{5}+E_{3})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{5}-E_{8}+E_{9}+E_{10})(-E_{4}+E_{12})}\\
\frac{+f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}+f_{2}^{-}f_{3}^{-}f_{6}^{-}f_{8}^{-}f_{10}^{+}-f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}-f_{2}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}}{(-E_{2}+E_{4})(-E_{3}+E_{5})(-E_{7}-E_{10}+E_{3}+E_{6})(-E_{9}-E_{10}+E_{3}+E_{8})(-E_{2}+E_{12})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}-f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}-f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}+f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{8}^{-}f_{10}^{+}}{(-E_{4}+E_{2})(-E_{3}+E_{5})(-E_{7}-E_{10}+E_{3}+E_{6})(-E_{9}-E_{10}+E_{3}+E_{8})(-E_{4}+E_{12})}\\
\frac{+f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}-f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}-f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}+f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{10}^{+}}{(-E_{2}+E_{4})(-E_{5}+E_{3})(-E_{7}-E_{10}+E_{5}+E_{6})(-E_{9}-E_{10}+E_{5}+E_{8})(-E_{2}+E_{12})}\\
\frac{+f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}-f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}+f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{10}^{+}-f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}}{(-E_{4}+E_{2})(-E_{5}+E_{3})(-E_{7}-E_{10}+E_{5}+E_{6})(-E_{9}-E_{10}+E_{5}+E_{8})(-E_{4}+E_{12})}\\
\frac{+f_{2}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{6}^{+}-f_{2}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{6}^{+}}{(-E_{2}+E_{4})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{7}-E_{10}+E_{3}+E_{6})(-E_{7}-E_{10}+E_{5}+E_{6})(-E_{2}+E_{12})}\\
\frac{+f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{6}^{+}-f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{6}^{+}}{(-E_{4}+E_{2})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{7}-E_{10}+E_{3}+E_{6})(-E_{7}-E_{10}+E_{5}+E_{6})(-E_{4}+E_{12})}\\
\frac{+f_{2}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{8}^{+}-f_{2}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{8}^{+}}{(-E_{2}+E_{4})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{3}+E_{8})(-E_{9}-E_{10}+E_{5}+E_{8})(-E_{2}+E_{12})}\\
\frac{+f_{4}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{8}^{+}-f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{8}^{+}}{(-E_{4}+E_{2})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{3}+E_{8})(-E_{9}-E_{10}+E_{5}+E_{8})(-E_{4}+E_{12})}\\
\frac{+f_{3}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}-f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}f_{7}^{+}}{(-E_{3}+E_{5})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{3}-E_{6}+E_{7}+E_{10})(-E_{12}+E_{2})(-E_{12}+E_{4})}\\
\frac{+f_{5}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}-f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{12}^{-}f_{7}^{+}}{(-E_{5}+E_{3})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{5}-E_{6}+E_{7}+E_{10})(-E_{12}+E_{2})(-E_{12}+E_{4})}\\
\frac{+f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{9}^{+}-f_{3}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}}{(-E_{3}+E_{5})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{3}-E_{8}+E_{9}+E_{10})(-E_{12}+E_{2})(-E_{12}+E_{4})}\\
\frac{+f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{12}^{-}f_{9}^{+}-f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{9}^{-}f_{12}^{-}}{(-E_{5}+E_{3})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{5}-E_{8}+E_{9}+E_{10})(-E_{12}+E_{2})(-E_{12}+E_{4})}\\
\frac{+f_{3}^{-}f_{6}^{-}f_{8}^{-}f_{12}^{-}f_{10}^{+}-f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}+f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}-f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{12}^{-}}{(-E_{3}+E_{5})(-E_{3}-E_{6}+E_{7}+E_{10})(-E_{3}-E_{8}+E_{9}+E_{10})(-E_{12}+E_{2})(-E_{12}+E_{4})}\\
\frac{+f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{12}^{-}f_{10}^{+}-f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{12}^{-}+f_{5}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}-f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}}{(-E_{5}+E_{3})(-E_{5}-E_{6}+E_{7}+E_{10})(-E_{5}-E_{8}+E_{9}+E_{10})(-E_{12}+E_{2})(-E_{12}+E_{4})}\\
\frac{+f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{12}^{-}f_{6}^{+}-f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{6}^{+}}{(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{7}-E_{10}+E_{3}+E_{6})(-E_{7}-E_{10}+E_{5}+E_{6})(-E_{12}+E_{2})(-E_{12}+E_{4})}\\
\frac{+f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{8}^{+}-f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{8}^{+}}{(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{3}+E_{8})(-E_{9}-E_{10}+E_{5}+E_{8})(-E_{12}+E_{2})(-E_{12}+E_{4})}
\end{array}\right)$$

$$+\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|3,8\}\{7,8|V|7,10\}\{9,10|V|9,6\}\{11,12|V|11,2\}f_{1}^{-}f_{7}^{-}f_{9}^{-}f_{11}^{-}\left(\begin{array}{c}
\frac{+f_{2}^{-}f_{3}^{-}f_{6}^{-}-f_{2}^{-}f_{5}^{-}f_{6}^{-}}{(-E_{2}+E_{4})(-E_{3}+E_{5})(-E_{6}+E_{8})(-E_{6}+E_{10})(-E_{2}+E_{12})}\\
\frac{+f_{4}^{-}f_{5}^{-}f_{6}^{-}-f_{3}^{-}f_{4}^{-}f_{6}^{-}}{(-E_{4}+E_{2})(-E_{5}+E_{3})(-E_{6}+E_{8})(-E_{6}+E_{10})(-E_{4}+E_{12})}\\
\frac{+f_{2}^{-}f_{3}^{-}f_{8}^{-}-f_{2}^{-}f_{5}^{-}f_{8}^{-}}{(-E_{2}+E_{4})(-E_{3}+E_{5})(-E_{8}+E_{6})(-E_{8}+E_{10})(-E_{2}+E_{12})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{8}^{-}-f_{4}^{-}f_{5}^{-}f_{8}^{-}}{(-E_{4}+E_{2})(-E_{3}+E_{5})(-E_{8}+E_{6})(-E_{8}+E_{10})(-E_{4}+E_{12})}\\
\frac{+f_{2}^{-}f_{3}^{-}f_{10}^{-}-f_{2}^{-}f_{5}^{-}f_{10}^{-}}{(-E_{2}+E_{4})(-E_{3}+E_{5})(-E_{10}+E_{6})(-E_{10}+E_{8})(-E_{2}+E_{12})}\\
\frac{+f_{3}^{-}f_{4}^{-}f_{10}^{-}-f_{4}^{-}f_{5}^{-}f_{10}^{-}}{(-E_{4}+E_{2})(-E_{3}+E_{5})(-E_{10}+E_{6})(-E_{10}+E_{8})(-E_{4}+E_{12})}\\
\frac{+f_{3}^{-}f_{6}^{-}f_{12}^{-}-f_{5}^{-}f_{6}^{-}f_{12}^{-}}{(-E_{3}+E_{5})(-E_{6}+E_{8})(-E_{6}+E_{10})(-E_{12}+E_{2})(-E_{12}+E_{4})}\\
\frac{+f_{5}^{-}f_{8}^{-}f_{12}^{-}-f_{3}^{-}f_{8}^{-}f_{12}^{-}}{(-E_{5}+E_{3})(-E_{8}+E_{6})(-E_{8}+E_{10})(-E_{12}+E_{2})(-E_{12}+E_{4})}\\
\frac{+f_{5}^{-}f_{10}^{-}f_{12}^{-}-f_{3}^{-}f_{10}^{-}f_{12}^{-}}{(-E_{5}+E_{3})(-E_{10}+E_{6})(-E_{10}+E_{8})(-E_{12}+E_{2})(-E_{12}+E_{4})}
\end{array}\right)$$

$$+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|3,6\}\{9,10|V|9,2\}\{11,12|V|11,8\}f_1^- f_9^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_5^- f_7^- - f_2^- f_3^- f_5^- f_6^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_2+E_{10})(-E_2-E_3+E_5+E_{12})} \\ \frac{+f_2^- f_5^- f_7^- f_8^- - f_2^- f_5^- f_6^- f_8^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_2+E_3)(-E_2+E_{10})(-E_8+E_{12})} \\ \frac{+f_2^- f_3^- f_7^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_2+E_{10})(-E_3-E_6+E_7+E_{12})} \\ \frac{+f_2^- f_7^- f_8^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_2+E_{10})(-E_8+E_{12})} \\ \frac{+f_2^- f_5^- f_7^- f_{12}^- - f_2^- f_5^- f_6^- f_{12}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_{12}+E_8)} \\ \frac{+f_2^- f_7^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2+E_{10})(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)} \\ \frac{+f_3^- f_4^- f_5^- f_7^- - f_3^- f_4^- f_5^- f_6^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_4+E_{10})(-E_3-E_4+E_5+E_{12})} \\ \frac{+f_4^- f_5^- f_6^- f_8^- - f_4^- f_5^- f_7^- f_8^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_8+E_3+E_4)(-E_4+E_{10})(-E_8+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_4+E_{10})(-E_3-E_6+E_7+E_{12})} \\ \frac{+f_4^- f_7^- f_8^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_4+E_{10})(-E_8+E_{12})} \\ \frac{+f_4^- f_5^- f_7^- f_{12}^- - f_4^- f_5^- f_6^- f_{12}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_4+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)} \\ \frac{+f_4^- f_7^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_4+E_{10})(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)} \\ \frac{+f_2^- f_3^- f_7^- f_8^+ - f_2^- f_3^- f_6^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_3+E_6)(-E_2+E_{10})(-E_8+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_8^+ - f_3^- f_4^- f_6^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_3+E_6)(-E_4+E_{10})(-E_8+E_{12})} \\ \frac{+f_2^- f_3^- f_7^- f_{12}^+ - f_2^- f_3^- f_6^- f_{12}^+}{(-E_2+E_4)(-E_2+E_{10})(-E_2-E_3+E_5+E_{12})(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)} \\ \frac{+f_3^- f_4^- f_7^- f_{12}^+ - f_3^- f_4^- f_6^- f_{12}^+}{(-E_4+E_2)(-E_4+E_{10})(-E_3-E_4+E_5+E_{12})(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)} \\ \frac{+f_3^- f_5^- f_6^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_3-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_6+E_7+E_{12})} \\ \frac{+f_5^- f_6^- f_8^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_7-E_8+E_3+E_6)(-E_5-E_6+E_7+E_{10})(-E_8+E_{12})} \\ \frac{+f_5^- f_6^- f_{12}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_5-E_6+E_7+E_{10})(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)} \\ \frac{+f_5^- f_7^- f_8^- f_3^+ - f_5^- f_6^- f_8^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_3+E_6)(-E_5-E_8+E_3+E_{10})(-E_8+E_{12})} \\ \frac{+f_3^- f_7^- f_{10}^- f_6^+}{(-E_3-E_6+E_7+E_8)(-E_{10}+E_2)(-E_{10}+E_4)(-E_7-E_{10}+E_5+E_6)(-E_3-E_6+E_7+E_{12})} \\ \frac{+f_7^- f_8^- f_{10}^- f_6^+}{(-E_7-E_8+E_3+E_6)(-E_{10}+E_2)(-E_{10}+E_4)(-E_7-E_{10}+E_5+E_6)(-E_8+E_{12})} \\ \frac{+f_3^- f_7^- f_{10}^- f_8^+ - f_3^- f_6^- f_{10}^- f_8^+}{(-E_7-E_8+E_3+E_6)(-E_{10}+E_2)(-E_{10}+E_4)(-E_3-E_{10}+E_5+E_8)(-E_8+E_{12})} \\ \frac{+f_5^- f_7^- f_8^- f_{10}^- - f_5^- f_6^- f_8^- f_{10}^-}{(-E_{10}+E_2)(-E_{10}+E_4)(-E_7-E_{10}+E_5+E_6)(-E_5-E_8+E_3+E_{10})(-E_8+E_{12})} \\ \frac{+f_3^- f_5^- f_7^- f_{10}^- - f_3^- f_5^- f_6^- f_{10}^-}{(-E_{10}+E_2)(-E_{10}+E_4)(-E_7-E_{10}+E_5+E_6)(-E_3-E_{10}+E_5+E_8)(-E_3-E_{10}+E_5+E_{12})} \\ \frac{+f_7^- f_{10}^- f_{12}^- f_6^+}{(-E_{10}+E_2)(-E_{10}+E_4)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)} \\ \frac{+f_5^- f_6^- f_{10}^- f_{12}^- - f_5^- f_7^- f_{10}^- f_{12}^-}{(-E_{10}+E_2)(-E_{10}+E_4)(-E_5-E_6+E_7+E_{10})(-E_{12}+E_8)(-E_5-E_{12}+E_3+E_{10})} \\ \frac{+f_3^- f_6^- f_{10}^- f_{12}^+ - f_3^- f_7^- f_{10}^- f_{12}^+}{(-E_{10}+E_2)(-E_{10}+E_4)(-E_3-E_6+E_7+E_{12})(-E_{12}+E_8)(-E_3-E_{10}+E_5+E_{12})} \\ \frac{+f_5^- f_6^- f_{12}^- f_3^+ - f_5^- f_7^- f_{12}^- f_3^+}{(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_3-E_6+E_7+E_{12})(-E_{12}+E_8)(-E_5-E_{12}+E_3+E_{10})} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|3,8\}\{7,8|V|9,6\}\{9,10|V|7,10\}\{11,12|V|11,2\}f_1^- f_{10}^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_5^- f_6^- f_7^- - f_2^- f_3^- f_6^- f_7^- - f_2^- f_3^- f_8^- f_9^- - f_2^- f_5^- f_6^- f_9^- + f_2^- f_3^- f_6^- f_9^- + f_2^- f_3^- f_7^- f_8^- + f_2^- f_5^- f_8^- f_9^- - f_2^- f_5^- f_7^- f_8^-}{(-E_2+E_4)(-E_5+E_3)(-E_6+E_8)(-E_7+E_9)(-E_2+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_7^- + f_4^- f_5^- f_7^- f_8^- + f_4^- f_5^- f_6^- f_9^- - f_3^- f_4^- f_6^- f_9^- + f_3^- f_4^- f_8^- f_9^- - f_4^- f_5^- f_8^- f_9^- - f_3^- f_4^- f_7^- f_8^- - f_4^- f_5^- f_6^- f_7^-}{(-E_4+E_2)(-E_3+E_5)(-E_6+E_8)(-E_7+E_9)(-E_4+E_{12})} \\ \frac{+f_5^- f_6^- f_9^- f_{12}^- - f_3^- f_6^- f_9^- f_{12}^- + f_5^- f_7^- f_8^- f_{12}^- - f_5^- f_6^- f_7^- f_{12}^- - f_3^- f_7^- f_8^- f_{12}^- - f_5^- f_8^- f_9^- f_{12}^- + f_3^- f_8^- f_9^- f_{12}^- + f_3^- f_6^- f_7^- f_{12}^-}{(-E_5+E_3)(-E_6+E_8)(-E_9+E_7)(-E_{12}+E_2)(-E_{12}+E_4)} \end{pmatrix}$$

$$
+\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|7,6\}\{7,8|V|9,12\}\{9,10|V|3,8\}\{11,12|V|11,2\}f_1^-f_6^-f_{11}^-
\begin{pmatrix}
\frac{+f_2^-f_3^-f_5^-f_8^- - f_2^-f_3^-f_5^-f_9^- + f_2^-f_5^-f_9^-f_{10}^- - f_2^-f_5^-f_8^-f_{10}^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_2-E_3+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^-f_4^-f_5^-f_8^- - f_3^-f_4^-f_5^-f_9^- + f_4^-f_5^-f_9^-f_{10}^- - f_4^-f_5^-f_8^-f_{10}^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_4+E_{12})} \\
\frac{+f_2^-f_3^-f_7^-f_8^- - f_2^-f_3^-f_7^-f_9^- + f_2^-f_7^-f_9^-f_{10}^- - f_2^-f_7^-f_8^-f_{10}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_2-E_3+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_4^-f_7^-f_9^-f_{10}^- - f_4^-f_7^-f_8^-f_{10}^- - f_3^-f_4^-f_7^-f_9^- + f_3^-f_4^-f_7^-f_8^-}{(-E_4+E_2)(-E_7+E_5)(-E_4-E_9+E_7+E_8)(-E_7-E_{10}+E_3+E_4)(-E_4+E_{12})} \\
\frac{+f_2^-f_9^-f_{10}^-f_8^+ - f_2^-f_3^-f_9^-f_8^+}{(-E_2+E_4)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_8)(-E_2+E_{12})} \\
\frac{+f_4^-f_9^-f_{10}^-f_8^+ - f_3^-f_4^-f_9^-f_8^+}{(-E_4+E_2)(-E_4-E_9+E_5+E_8)(-E_4-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_8)(-E_4+E_{12})} \\
\frac{+f_2^-f_3^-f_8^-f_{10}^+ - f_2^-f_3^-f_9^-f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_3+E_7+E_{10})(-E_3-E_8+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^-f_4^-f_9^-f_{10}^+ - f_3^-f_4^-f_8^-f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_4+E_7+E_{10})(-E_9-E_{10}+E_3+E_8)(-E_4+E_{12})} \\
\frac{+f_5^-f_8^-f_{10}^-f_9^+ - f_3^-f_5^-f_8^-f_9^+}{(-E_5+E_7)(-E_5-E_8+E_2+E_9)(-E_5-E_8+E_4+E_9)(-E_9-E_{10}+E_3+E_8)(-E_5-E_8+E_9+E_{12})} \\
\frac{+f_7^-f_8^-f_{10}^-f_9^+ - f_3^-f_7^-f_8^-f_9^+}{(-E_7+E_5)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_9-E_{10}+E_3+E_8)(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_5^-f_9^-f_{10}^-f_3^+ - f_5^-f_8^-f_{10}^-f_3^+}{(-E_5+E_7)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_3+E_8)(-E_5-E_{10}+E_3+E_{12})} \\
\frac{+f_7^-f_9^-f_{10}^-f_3^+ - f_7^-f_8^-f_{10}^-f_3^+}{(-E_7+E_5)(-E_7-E_{10}+E_2+E_3)(-E_7-E_{10}+E_3+E_4)(-E_9-E_{10}+E_3+E_8)(-E_7-E_{10}+E_3+E_{12})} \\
\frac{+f_3^-f_5^-f_9^-f_{12}^- - f_5^-f_9^-f_{10}^-f_{12}^- + f_5^-f_8^-f_{10}^-f_{12}^- - f_3^-f_5^-f_8^-f_{12}^-}{(-E_5+E_7)(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{12}+E_5+E_8)(-E_3-E_{12}+E_5+E_{10})} \\
\frac{+f_7^-f_9^-f_{10}^-f_{12}^- - f_3^-f_7^-f_9^-f_{12}^- - f_7^-f_8^-f_{10}^-f_{12}^- + f_3^-f_7^-f_8^-f_{12}^-}{(-E_7+E_5)(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_3+E_{12})} \\
\frac{+f_3^-f_9^-f_{12}^-f_8^+ - f_9^-f_{10}^-f_{12}^-f_8^+}{(-E_3-E_8+E_9+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{12}+E_5+E_8)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^-f_9^-f_{12}^-f_{10}^+ - f_3^-f_8^-f_{12}^-f_{10}^+}{(-E_9-E_{10}+E_3+E_8)(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_{10})(-E_3-E_{12}+E_7+E_{10})}
\end{pmatrix}
$$

$$+\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|7,12\}\{7,8|V|3,10\}\{9,10|V|9,6\}\{11,12|V|11,2\}f_1^- f_9^- f_{11}^- \left(\begin{array}{c}
\frac{+f_2^- f_5^- f_6^- f_8^- - f_2^- f_3^- f_5^- f_6^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_2+E_3)(-E_6+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- - f_2^- f_3^- f_5^- f_7^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_2+E_3)(-E_2-E_7+E_5+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_6^+ - f_2^- f_7^- f_8^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_6+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- - f_4^- f_5^- f_6^- f_8^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_6+E_{10})(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- - f_4^- f_5^- f_7^- f_8^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_4-E_7+E_5+E_{10})(-E_4+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_6^+ - f_3^- f_4^- f_7^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_6+E_{10})(-E_4+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_3-E_6+E_7+E_8)(-E_6+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_3+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_{10}^- - f_2^- f_5^- f_8^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_{10}+E_6)(-E_5-E_{10}+E_2+E_7)(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_{10}^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_{10}+E_6)(-E_3-E_{10}+E_7+E_8)(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_6+E_7+E_8)(-E_6+E_{10})(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_3+E_{10})(-E_4+E_{12})} \\
\frac{+f_4^- f_5^- f_8^- f_{10}^- - f_3^- f_4^- f_5^- f_{10}^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_{10}+E_6)(-E_5-E_{10}+E_4+E_7)(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_{10}+E_6)(-E_3-E_{10}+E_7+E_8)(-E_4+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{10}^+ - f_2^- f_3^- f_7^- f_{10}^+}{(-E_2+E_4)(-E_{10}+E_6)(-E_2-E_7+E_5+E_{10})(-E_7-E_8+E_3+E_{10})(-E_2+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_{10}^+ - f_3^- f_4^- f_7^- f_{10}^+}{(-E_4+E_2)(-E_{10}+E_6)(-E_4-E_7+E_5+E_{10})(-E_7-E_8+E_3+E_{10})(-E_4+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^+ - f_5^- f_6^- f_8^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_3-E_6+E_7+E_8)(-E_6+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_3-E_6+E_7+E_8)(-E_6+E_{10})(-E_5-E_8+E_3+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_3+E_{10})(-E_5-E_8+E_3+E_{12})} \\
\frac{+f_5^- f_8^- f_{10}^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_{10}+E_6)(-E_3-E_{10}+E_7+E_8)(-E_5-E_8+E_3+E_{12})} \\
\frac{+f_7^- f_8^- f_{12}^- f_6^+ - f_3^- f_7^- f_{12}^- f_6^+}{(-E_7-E_8+E_3+E_6)(-E_6+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_3^- f_6^- f_{12}^- f_8^+}{(-E_3-E_6+E_7+E_8)(-E_6+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_8)} \\
\frac{+f_3^- f_7^- f_{12}^- f_8^+}{(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_3+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_8)} \\
\frac{+f_3^- f_5^- f_{10}^- f_7^+ - f_5^- f_8^- f_{10}^- f_7^+}{(-E_{10}+E_6)(-E_5-E_{10}+E_2+E_7)(-E_5-E_{10}+E_4+E_7)(-E_3-E_{10}+E_7+E_8)(-E_5-E_{10}+E_7+E_{12})} \\
\frac{+f_3^- f_{10}^- f_{12}^- f_8^+}{(-E_{10}+E_6)(-E_3-E_{10}+E_7+E_8)(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_8)} \\
\frac{+f_3^- f_7^- f_{12}^- f_{10}^+ - f_7^- f_8^- f_{12}^- f_{10}^+}{(-E_{10}+E_6)(-E_3-E_{10}+E_7+E_8)(-E_{12}+E_2)(-E_{12}+E_4)(-E_7-E_{12}+E_5+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_{12}^- - f_5^- f_6^- f_8^- f_{12}^-}{(-E_6+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_5-E_6+E_7+E_{12})(-E_3-E_{12}+E_5+E_8)} \\
\frac{+f_5^- f_8^- f_{10}^- f_{12}^- - f_3^- f_5^- f_{10}^- f_{12}^-}{(-E_{10}+E_6)(-E_{12}+E_2)(-E_{12}+E_4)(-E_5-E_8+E_3+E_{12})(-E_5-E_{10}+E_7+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_{12}^- - f_5^- f_7^- f_8^- f_{12}^-}{(-E_{12}+E_2)(-E_{12}+E_4)(-E_7-E_{12}+E_5+E_6)(-E_3-E_{12}+E_5+E_8)(-E_7-E_{12}+E_5+E_{10})}
\end{array}\right)$$

$$+\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|7,10\}\{7,8|V|9,12\}\{9,10|V|3,6\}\{11,12|V|11,2\}f_1^- f_{11}^- \left(\begin{array}{c}
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_5^+ - f_2^- f_3^- f_6^- f_7^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_3-E_7+E_5+E_9)(-E_7-E_{10}+E_5+E_6)(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_5^+ - f_2^- f_3^- f_6^- f_9^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_9+E_3+E_7)(-E_9-E_{10}+E_3+E_6)(-E_2+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- - f_2^- f_5^- f_6^- f_7^- f_8^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^- - f_2^- f_3^- f_6^- f_7^- f_8^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_8^- f_9^- - f_2^- f_3^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_3-E_6+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_9^- f_{10}^- - f_2^- f_5^- f_6^- f_8^- f_9^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_5^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_8^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_3-E_6+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_5^+ - f_3^- f_4^- f_6^- f_7^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_7+E_5+E_9)(-E_7-E_{10}+E_5+E_6)(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_5^+ - f_3^- f_4^- f_6^- f_9^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_9+E_3+E_7)(-E_9-E_{10}+E_3+E_6)(-E_4+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- - f_4^- f_5^- f_6^- f_7^- f_8^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_4+E_9)(-E_7-E_{10}+E_5+E_6)(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- - f_3^- f_4^- f_6^- f_7^- f_8^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_4+E_9)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^- - f_3^- f_4^- f_6^- f_8^- f_9^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_4-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_6)(-E_4+E_{12})} \\
\frac{+f_4^- f_5^- f_8^- f_9^- f_{10}^- - f_4^- f_5^- f_6^- f_8^- f_9^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_4-E_9+E_7+E_8)(-E_4-E_9-E_{10}+E_5+E_6+E_8)(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_5^+ f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_4+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_6+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_7^+ - f_2^- f_5^- f_9^- f_{10}^- f_7^+}{(-E_2+E_4)(-E_5-E_9+E_3+E_7)(-E_2-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_7^+ - f_2^- f_3^- f_9^- f_{10}^- f_7^+}{(-E_2+E_4)(-E_3-E_7+E_5+E_9)(-E_2-E_9+E_7+E_8)(-E_3-E_6+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_4^- f_5^- f_9^- f_{10}^- f_7^+ - f_4^- f_5^- f_6^- f_9^- f_7^+}{(-E_4+E_2)(-E_5-E_9+E_3+E_7)(-E_4-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_7^+ - f_3^- f_4^- f_9^- f_{10}^- f_7^+}{(-E_4+E_2)(-E_3-E_7+E_5+E_9)(-E_4-E_9+E_7+E_8)(-E_3-E_6+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_2+E_{12})} \\
\frac{+f_2^- f_9^- f_{10}^- f_6^+ f_7^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_3+E_6)(-E_2+E_{12})} \\
\frac{+f_2^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_6)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_2+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_7-E_8+E_4+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_4+E_{12})} \\
\frac{+f_4^- f_9^- f_{10}^- f_6^+ f_7^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_3+E_6)(-E_4+E_{12})} \\
\frac{+f_4^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_6)(-E_4-E_9-E_{10}+E_5+E_6+E_8)(-E_4+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^+ f_{10}^+}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_3-E_6+E_9+E_{10})(-E_2+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^+ f_{10}^+}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_6+E_9+E_{10})(-E_4+E_{12})} \\
\frac{+f_2^- f_9^- f_{10}^- f_5^+ f_6^+}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_2+E_{12})} \\
\frac{+f_4^- f_9^- f_{10}^- f_5^+ f_6^+}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_4-E_9-E_{10}+E_5+E_6+E_8)(-E_4+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_8^- f_3^+ - f_5^- f_7^- f_8^- f_{10}^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_3-E_7+E_5+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_3+E_{12})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_3^+ - f_5^- f_6^- f_8^- f_9^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_5-E_9+E_3+E_7)(-E_9-E_{10}+E_3+E_6)(-E_5-E_8+E_3+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_3^+ f_{10}^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_5-E_8+E_3+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_8^- f_9^+ - f_5^- f_7^- f_8^- f_{10}^- f_9^+}{(-E_5-E_9+E_3+E_7)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_5-E_6+E_7+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_6^- f_7^- f_8^- f_9^+ - f_3^- f_7^- f_8^- f_{10}^- f_9^+}{(-E_3-E_7+E_5+E_9)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_3-E_6+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_7^- f_{10}^- f_{12}^- f_5^+ - f_3^- f_6^- f_7^- f_{12}^- f_5^+}{(-E_3-E_7+E_5+E_9)(-E_7-E_{10}+E_5+E_6)(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_8)} \\
\frac{+f_5^- f_6^- f_9^- f_{12}^- f_7^+ - f_5^- f_9^- f_{10}^- f_{12}^- f_7^+}{(-E_5-E_9+E_3+E_7)(-E_5-E_6+E_7+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_6^- f_9^- f_{12}^- f_5^+ - f_3^- f_9^- f_{10}^- f_{12}^- f_5^+}{(-E_5-E_9+E_3+E_7)(-E_3-E_6+E_9+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_8)} \\
\frac{+f_3^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_3^- f_6^- f_9^- f_{12}^- f_7^+}{(-E_3-E_7+E_5+E_9)(-E_9-E_{10}+E_3+E_6)(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_7^- f_8^- f_{10}^- f_6^+ f_9^+}{(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_3+E_6)(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_7^- f_8^- f_{10}^- f_3^+ f_6^+}{(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_3-E_6+E_9+E_{10})(-E_7-E_8-E_{10}+E_3+E_6+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_9^+ f_{10}^+}{(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_5-E_6-E_8+E_4+E_9+E_{10})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_3^- f_6^- f_{12}^- f_5^+ f_{10}^+}{(-E_5-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_{12}+E_5+E_8)} \\
\frac{+f_9^- f_{10}^- f_{12}^- f_6^+ f_7^+}{(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_3+E_6)(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_6^- f_{12}^- f_7^+ f_{10}^+}{(-E_7-E_{10}+E_5+E_6)(-E_3-E_6+E_9+E_{10})(-E_{12}+E_2)(-E_{12}+E_4)(-E_3-E_6-E_{12}+E_7+E_8+E_{10})} \\
\frac{+f_9^- f_{10}^- f_{12}^- f_5^+ f_6^+}{(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_{12}+E_2)(-E_{12}+E_4)(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)}
\end{array} \right.$$

$$+\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|3,6\}\{7,8|V|7,10\}\{9,10|V|11,2\}\{11,12|V|9,12\}f_1^- f_6^- f_7^- f_{12}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_9^- -f_2^- f_3^- f_{11}^- +f_2^- f_5^- f_{11}^- -f_2^- f_5^- f_9^-}{(-E_2+E_4)(-E_3+E_5)(-E_2+E_8)(-E_2+E_{10})(-E_9+E_{11})} \\ \frac{+f_3^- f_4^- f_9^- -f_4^- f_5^- f_9^- -f_3^- f_4^- f_{11}^- +f_4^- f_5^- f_{11}^-}{(-E_4+E_2)(-E_3+E_5)(-E_4+E_8)(-E_4+E_{10})(-E_9+E_{11})} \\ \frac{+f_3^- f_8^- f_{11}^- -f_3^- f_8^- f_9^- +f_5^- f_8^- f_9^- -f_5^- f_8^- f_{11}^-}{(-E_3+E_5)(-E_8+E_2)(-E_8+E_4)(-E_8+E_{10})(-E_{11}+E_9)} \\ \frac{+f_3^- f_9^- f_{10}^- -f_5^- f_9^- f_{10}^- -f_3^- f_{10}^- f_{11}^- +f_5^- f_{10}^- f_{11}^-}{(-E_3+E_5)(-E_{10}+E_2)(-E_{10}+E_4)(-E_{10}+E_8)(-E_9+E_{11})} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|3,8\}\{7,8|V|7,6\}\{9,10|V|11,2\}\{11,12|V|9,12\}f_1^- f_7^- f_{12}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_6^- f_9^- -f_2^- f_5^- f_6^- f_9^- +f_2^- f_3^- f_8^- f_{11}^- -f_2^- f_5^- f_8^- f_{11}^- +f_2^- f_5^- f_6^- f_{11}^- -f_2^- f_3^- f_8^- f_9^- -f_2^- f_3^- f_6^- f_{11}^- +f_2^- f_5^- f_8^- f_9^-}{(-E_2+E_4)(-E_3+E_5)(-E_6+E_8)(-E_2+E_{10})(-E_9+E_{11})} \\ \frac{+f_3^- f_4^- f_6^- f_9^- +f_4^- f_5^- f_8^- f_9^- +f_3^- f_4^- f_8^- f_{11}^- -f_4^- f_5^- f_8^- f_{11}^- +f_4^- f_5^- f_6^- f_{11}^- -f_3^- f_4^- f_8^- f_9^- -f_3^- f_4^- f_6^- f_{11}^- -f_4^- f_5^- f_6^- f_9^-}{(-E_4+E_2)(-E_3+E_5)(-E_6+E_8)(-E_4+E_{10})(-E_9+E_{11})} \\ \frac{+f_5^- f_6^- f_{10}^- f_{11}^- +f_5^- f_8^- f_9^- f_{10}^- -f_3^- f_6^- f_{10}^- f_{11}^- +f_3^- f_8^- f_{10}^- f_{11}^- +f_3^- f_6^- f_9^- f_{10}^- -f_5^- f_8^- f_{10}^- f_{11}^- -f_5^- f_6^- f_9^- f_{10}^- -f_3^- f_8^- f_9^- f_{10}^-}{(-E_5+E_3)(-E_6+E_8)(-E_{10}+E_2)(-E_{10}+E_4)(-E_{11}+E_9)} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|7,10\}\{7,8|V|3,6\}\{9,10|V|11,2\}\{11,12|V|9,12\}f_1^- f_{12}^- \begin{pmatrix} \frac{+f_2^- f_5^- f_7^- f_8^- f_9^- +f_2^- f_3^- f_5^- f_6^- f_9^- -f_2^- f_3^- f_5^- f_6^- f_{11}^- -f_2^- f_5^- f_6^- f_8^- f_9^- -f_2^- f_3^- f_7^- f_9^- f_5^+ -f_2^- f_5^- f_7^- f_8^- f_{11}^- +f_2^- f_5^- f_6^- f_8^- f_{11}^- +f_2^- f_3^- f_7^- f_{11}^- f_5^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_2+E_3)(-E_2+E_{10})(-E_9+E_{11})} \\ \frac{+f_2^- f_7^- f_8^- f_9^- f_6^+ -f_2^- f_7^- f_8^- f_{11}^- f_6^+ -f_2^- f_3^- f_6^- f_7^- f_9^- +f_2^- f_3^- f_6^- f_7^- f_{11}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_2+E_{10})(-E_9+E_{11})} \\ \frac{+f_3^- f_4^- f_7^- f_9^- f_5^+ +f_4^- f_5^- f_6^- f_8^- f_9^- -f_3^- f_4^- f_5^- f_6^- f_9^- +f_3^- f_4^- f_5^- f_6^- f_{11}^- -f_4^- f_5^- f_7^- f_8^- f_9^- -f_3^- f_4^- f_7^- f_{11}^- f_5^+ +f_4^- f_5^- f_7^- f_8^- f_{11}^- -f_4^- f_5^- f_6^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_4+E_{10})(-E_9+E_{11})} \\ \frac{+f_4^- f_7^- f_8^- f_{11}^- f_6^+ -f_3^- f_4^- f_6^- f_7^- f_{11}^- -f_4^- f_7^- f_8^- f_9^- f_6^+ +f_3^- f_4^- f_6^- f_7^- f_9^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_4+E_{10})(-E_{11}+E_9)} \\ \frac{+f_2^- f_3^- f_6^- f_{11}^- f_8^+ +f_2^- f_3^- f_7^- f_8^- f_9^- -f_2^- f_3^- f_6^- f_9^- f_8^+ -f_2^- f_3^- f_7^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_3-E_6+E_7+E_8)(-E_2+E_{10})(-E_{11}+E_9)} \\ \frac{+f_3^- f_4^- f_7^- f_8^- f_9^- -f_3^- f_4^- f_6^- f_9^- f_8^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- +f_3^- f_4^- f_6^- f_{11}^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_3+E_6)(-E_4+E_{10})(-E_9+E_{11})} \\ \frac{+f_3^- f_5^- f_6^- f_9^- f_7^+ -f_5^- f_6^- f_8^- f_9^- f_7^+ +f_5^- f_6^- f_8^- f_{11}^- f_7^+ -f_3^- f_5^- f_6^- f_{11}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_3-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_9+E_{11})} \\ \frac{+f_5^- f_6^- f_8^- f_{11}^- f_3^+ +f_5^- f_7^- f_8^- f_9^- f_3^+ -f_5^- f_6^- f_8^- f_9^- f_3^+ -f_5^- f_7^- f_8^- f_{11}^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_3-E_6+E_7+E_8)(-E_5-E_8+E_3+E_{10})(-E_{11}+E_9)} \\ \frac{+f_3^- f_6^- f_7^- f_{10}^- f_{11}^- -f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ -f_3^- f_6^- f_7^- f_9^- f_{10}^- +f_7^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_3-E_6+E_7+E_8)(-E_{10}+E_2)(-E_{10}+E_4)(-E_7-E_{10}+E_5+E_6)(-E_{11}+E_9)} \\ \frac{+f_3^- f_7^- f_8^- f_9^- f_{10}^- -f_3^- f_6^- f_9^- f_{10}^- f_8^+ +f_3^- f_6^- f_{10}^- f_{11}^- f_8^+ -f_3^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_7-E_8+E_3+E_6)(-E_{10}+E_2)(-E_{10}+E_4)(-E_3-E_{10}+E_5+E_8)(-E_9+E_{11})} \\ \frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- +f_5^- f_6^- f_8^- f_{10}^- f_{11}^- +f_3^- f_7^- f_{10}^- f_{11}^- f_5^+ -f_3^- f_5^- f_6^- f_{10}^- f_{11}^- -f_5^- f_6^- f_8^- f_9^- f_{10}^- -f_5^- f_7^- f_8^- f_{10}^- f_{11}^- -f_3^- f_7^- f_9^- f_{10}^- f_5^+ +f_5^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_{10}+E_2)(-E_{10}+E_4)(-E_5-E_6+E_7+E_{10})(-E_3-E_{10}+E_5+E_8)(-E_9+E_{11})} \end{pmatrix}$$

$$
+\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|7,2\}\{7,8|V|9,8\}\{9,10|V|11,6\}\{11,12|V|3,12\}f_1^- f_8^- f_{12}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_6^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_2-E_3+E_5+E_{10})(-E_3+E_{11})} \\
\frac{+f_5^- f_6^- f_{10}^- f_2^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_2+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_{11}+E_3)(-E_2-E_{11}+E_5+E_{10})} \\
\frac{+f_2^- f_3^- f_7^- f_5^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_3+E_{11})} \\
\frac{+f_2^- f_5^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_2+E_{11})} \\
\frac{+f_2^- f_3^- f_6^- f_7^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_3-E_6+E_7+E_{10})(-E_3+E_{11})} \\
\frac{+f_2^- f_7^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_6+E_{11})} \\
\frac{+f_2^- f_7^- f_{11}^- f_5^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_{11}+E_3)(-E_2-E_{11}+E_5+E_{10})} \\
\frac{+f_2^- f_6^- f_7^- f_{11}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_{11}+E_3)(-E_6-E_{11}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_5^- f_6^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_6+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3+E_{11})} \\
\frac{+f_5^- f_6^- f_{10}^- f_4^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_6+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{10}+E_4+E_{11})} \\
\frac{+f_4^- f_5^- f_6^- f_{11}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_6+E_4+E_9)(-E_{11}+E_3)(-E_4-E_{11}+E_5+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_5^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_3+E_{11})} \\
\frac{+f_4^- f_5^- f_7^- f_{10}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{10}+E_4+E_{11})} \\
\frac{+f_3^- f_4^- f_6^- f_7^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7+E_9)(-E_3-E_6+E_7+E_{10})(-E_3+E_{11})} \\
\frac{+f_4^- f_7^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_6+E_{11})} \\
\frac{+f_4^- f_7^- f_{11}^- f_5^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7+E_9)(-E_{11}+E_3)(-E_4-E_{11}+E_5+E_{10})} \\
\frac{+f_4^- f_6^- f_7^- f_{11}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7+E_9)(-E_{11}+E_3)(-E_6-E_{11}+E_7+E_{10})} \\
\frac{+f_2^- f_3^- f_9^- f_5^+}{(-E_2+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_2-E_3+E_5+E_{10})(-E_3+E_{11})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_2+E_{11})} \\
\frac{+f_2^- f_3^- f_6^- f_9^-}{(-E_2+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_6+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_2^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_9-E_{10}+E_3+E_6)(-E_9-E_{10}+E_6+E_{11})} \\
\frac{+f_2^- f_9^- f_{11}^- f_5^+}{(-E_2+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_{11}+E_3)(-E_2-E_{11}+E_5+E_{10})} \\
\frac{+f_2^- f_6^- f_9^- f_{11}^-}{(-E_2+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_{11}+E_3)(-E_6-E_{11}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_9^- f_5^+}{(-E_4+E_2)(-E_4-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_3+E_{11})} \\
\frac{+f_4^- f_5^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_4-E_9+E_5+E_6)(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{10}+E_4+E_{11})} \\
\frac{+f_3^- f_4^- f_6^- f_9^-}{(-E_4+E_2)(-E_4-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_6+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_4^- f_9^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_4-E_9+E_5+E_6)(-E_9+E_7)(-E_9-E_{10}+E_3+E_6)(-E_9-E_{10}+E_6+E_{11})} \\
\frac{+f_4^- f_9^- f_{11}^- f_5^+}{(-E_4+E_2)(-E_4-E_9+E_5+E_6)(-E_9+E_7)(-E_{11}+E_3)(-E_4-E_{11}+E_5+E_{10})} \\
\frac{+f_4^- f_6^- f_9^- f_{11}^-}{(-E_4+E_2)(-E_4-E_9+E_5+E_6)(-E_9+E_7)(-E_{11}+E_3)(-E_6-E_{11}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_7-E_{10}+E_3+E_6)(-E_3+E_{11})} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_9+E_7)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_3+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^-}{(-E_4+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_3+E_6)(-E_3+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_3+E_{11})} \\
\frac{+f_2^- f_7^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_7+E_9)(-E_{11}+E_3)(-E_2-E_{11}+E_5+E_{10})(-E_7-E_{10}+E_6+E_{11})} \\
\frac{+f_2^- f_9^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_9+E_7)(-E_{11}+E_3)(-E_2-E_{11}+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})} \\
\frac{+f_4^- f_7^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_7+E_9)(-E_{11}+E_3)(-E_4-E_{11}+E_5+E_{10})(-E_7-E_{10}+E_6+E_{11})} \\
\frac{+f_4^- f_9^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_9+E_7)(-E_{11}+E_3)(-E_4-E_{11}+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})} \\
\frac{+f_2^- f_3^- f_6^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_3-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_3^- f_4^- f_6^- f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_2^- f_6^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_{11}+E_3)(-E_2-E_{11}+E_5+E_{10})(-E_6-E_{11}+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})} \\
\frac{+f_4^- f_6^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_{11}+E_3)(-E_4-E_{11}+E_5+E_{10})(-E_6-E_{11}+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_7+E_9)(-E_3-E_6+E_7+E_{10})(-E_3+E_{11})} \\
\frac{+f_5^- f_6^- f_7^- f_{10}^-}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_7+E_9)(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_6+E_{11})} \\
\frac{+f_5^- f_6^- f_{11}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_7+E_9)(-E_{11}+E_3)(-E_6-E_{11}+E_7+E_{10})} \\
\frac{+f_3^- f_5^- f_6^- f_9^+}{(-E_5-E_6+E_2+E_9)(-E_5-E_6+E_4+E_9)(-E_9+E_7)(-E_3-E_6+E_9+E_{10})(-E_3+E_{11})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^-}{(-E_5-E_6+E_2+E_9)(-E_5-E_6+E_4+E_9)(-E_9+E_7)(-E_9-E_{10}+E_3+E_6)(-E_9-E_{10}+E_6+E_{11})} \\
\frac{+f_5^- f_6^- f_{11}^- f_9^+}{(-E_5-E_6+E_2+E_9)(-E_5-E_6+E_4+E_9)(-E_9+E_7)(-E_{11}+E_3)(-E_6-E_{11}+E_9+E_{10})}
\end{array} \right)
$$

$$
+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|3,8\}\{7,8|V|9,2\}\{9,10|V|11,10\}\{11,12|V|7,6\}f_1^-f_{10}^-
\left(\begin{array}{r}
\frac{+f_2^-f_5^-f_6^-f_7^-f_3^+}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_5-E_6-E_7+E_2+E_3+E_9)(-E_5-E_6-E_7+E_2+E_3+E_{11})(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_6^-f_9^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_3-E_9+E_5+E_6+E_7)(-E_9+E_{11})(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_4^-f_5^-f_6^-f_7^-f_3^+}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_5-E_6-E_7+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_9^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_7^-f_8^-}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^-f_5^-f_6^-f_7^-f_8^--f_2^-f_3^-f_7^-f_8^-f_6^+}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_2-E_6+E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_8^-f_9^-}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_8^-f_9^-f_6^+-f_2^-f_5^-f_6^-f_9^-f_8^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_2-E_6+E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_7^-f_8^-}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_7-E_8+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_6^+-f_4^-f_5^-f_6^-f_7^-f_8^-}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_7-E_8+E_4+E_{11})(-E_4-E_6+E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_8^-f_9^-}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_8^-f_9^-f_6^+-f_4^-f_5^-f_6^-f_9^-f_8^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_9+E_{11})(-E_4-E_6+E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_6^-f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_3-E_{11}+E_5+E_6+E_7)(-E_{11}+E_9)(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_{11}^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_3-E_4-E_{11}+E_5+E_6+E_7)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_8^-f_{11}^-}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^-f_5^-f_6^-f_{11}^-f_8^+-f_2^-f_3^-f_8^-f_{11}^-f_6^+}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_2-E_6+E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_8^-f_{11}^-}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_4-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_4^-f_5^-f_6^-f_{11}^-f_8^+-f_3^-f_4^-f_8^-f_{11}^-f_6^+}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_4-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_4-E_6+E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_9^-f_7^+}{(-E_2+E_4)(-E_2-E_3-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_9^-f_6^+f_7^+-f_2^-f_5^-f_6^-f_7^-f_9^-}{(-E_2+E_4)(-E_2-E_3-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_6-E_7+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_9^-f_7^+}{(-E_4+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_4-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_9^-f_6^+f_7^+-f_4^-f_5^-f_6^-f_7^-f_9^-}{(-E_4+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_4-E_9+E_7+E_8)(-E_9+E_{11})(-E_6-E_7+E_9+E_{12})}\\
\frac{+f_2^-f_3^-f_7^-f_8^-f_{12}^+-f_5^-f_7^-f_8^-f_{12}^-f_2^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_2+E_{11})(-E_2-E_3+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)}\\
\frac{+f_2^-f_3^-f_8^-f_9^-f_{12}^+-f_2^-f_5^-f_8^-f_9^-f_{12}^-}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_2-E_3+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)}\\
\frac{+f_2^-f_3^-f_9^-f_7^+f_{12}^+-f_2^-f_5^-f_9^-f_{12}^-f_7^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_9+E_{11})(-E_2-E_3+E_5+E_{12})(-E_9-E_{12}+E_6+E_7)}\\
\frac{+f_5^-f_7^-f_8^-f_{12}^-f_4^+-f_3^-f_4^-f_7^-f_8^-f_{12}^+}{(-E_4+E_2)(-E_7-E_8+E_4+E_9)(-E_7-E_8+E_4+E_{11})(-E_5-E_{12}+E_3+E_4)(-E_8-E_{12}+E_4+E_6)}\\
\frac{+f_3^-f_4^-f_8^-f_9^-f_{12}^+-f_4^-f_5^-f_8^-f_9^-f_{12}^-}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_4+E_6)}\\
\frac{+f_3^-f_4^-f_9^-f_7^+f_{12}^+-f_4^-f_5^-f_9^-f_{12}^-f_7^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_4+E_5+E_{12})(-E_9-E_{12}+E_6+E_7)}\\
\frac{+f_2^-f_3^-f_5^-f_{11}^-f_7^+}{(-E_2+E_4)(-E_2-E_3-E_{11}+E_5+E_6+E_7)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_{11}^-f_6^+f_7^+-f_2^-f_5^-f_6^-f_7^-f_{11}^-}{(-E_2+E_4)(-E_2-E_3-E_{11}+E_5+E_6+E_7)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_{11}^-f_7^+}{(-E_4+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_7)(-E_4-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_{11}^-f_6^+f_7^+-f_4^-f_5^-f_6^-f_7^-f_{11}^-}{(-E_4+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_7)(-E_4-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_8^-f_{11}^-f_{12}^+-f_2^-f_5^-f_8^-f_{11}^-f_{12}^-}{(-E_2+E_4)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_2-E_3+E_5+E_{12})(-E_8-E_{12}+E_2+E_6)}\\
\frac{+f_2^-f_5^-f_{11}^-f_{12}^-f_7^+-f_2^-f_3^-f_{11}^-f_7^+f_{12}^+}{(-E_2+E_4)(-E_2-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_5-E_{12}+E_2+E_3)(-E_{11}-E_{12}+E_6+E_7)}\\
\frac{+f_3^-f_4^-f_8^-f_{11}^-f_{12}^+-f_4^-f_5^-f_8^-f_{11}^-f_{12}^-}{(-E_4+E_2)(-E_4-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_4+E_6)}\\
\frac{+f_3^-f_4^-f_{11}^-f_7^+f_{12}^+-f_4^-f_5^-f_{11}^-f_{12}^-f_7^+}{(-E_4+E_2)(-E_4-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_7)}\\
\frac{+f_2^-f_3^-f_6^-f_9^-f_{12}^+-f_2^-f_5^-f_6^-f_9^-f_{12}^-}{(-E_2+E_4)(-E_9+E_{11})(-E_2-E_3+E_5+E_{12})(-E_2-E_6+E_8+E_{12})(-E_9-E_{12}+E_6+E_7)}\\
\frac{+f_2^-f_3^-f_6^-f_{11}^-f_{12}^+-f_2^-f_5^-f_6^-f_{11}^-f_{12}^-}{(-E_2+E_4)(-E_{11}+E_9)(-E_2-E_3+E_5+E_{12})(-E_2-E_6+E_8+E_{12})(-E_{11}-E_{12}+E_6+E_7)}\\
\frac{+f_4^-f_5^-f_6^-f_9^-f_{12}^--f_3^-f_4^-f_6^-f_9^-f_{12}^+}{(-E_4+E_2)(-E_9+E_{11})(-E_5-E_{12}+E_3+E_4)(-E_4-E_6+E_8+E_{12})(-E_9-E_{12}+E_6+E_7)}\\
\frac{+f_4^-f_5^-f_6^-f_{11}^-f_{12}^--f_3^-f_4^-f_6^-f_{11}^-f_{12}^+}{(-E_4+E_2)(-E_{11}+E_9)(-E_5-E_{12}+E_3+E_4)(-E_4-E_6+E_8+E_{12})(-E_{11}-E_{12}+E_6+E_7)}\\
\frac{+f_2^-f_5^-f_6^-f_7^-f_{12}^+-f_2^-f_3^-f_6^-f_7^-f_{12}^+}{(-E_2+E_4)(-E_5-E_{12}+E_2+E_3)(-E_2-E_6+E_8+E_{12})(-E_6-E_7+E_9+E_{12})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_4^-f_5^-f_6^-f_7^-f_{12}^+-f_3^-f_4^-f_6^-f_7^-f_{12}^+}{(-E_4+E_2)(-E_5-E_{12}+E_3+E_4)(-E_4-E_6+E_8+E_{12})(-E_6-E_7+E_9+E_{12})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_5^-f_6^-f_7^-f_3^+f_9^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_6-E_7+E_2+E_3+E_9)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_9+E_{11})(-E_6-E_7+E_9+E_{12})}\\
\frac{+f_5^-f_6^-f_7^-f_8^-f_9^+-f_3^-f_7^-f_8^-f_6^+f_9^+}{(-E_5-E_6+E_3+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_9+E_{11})(-E_6-E_7+E_9+E_{12})}\\
\frac{+f_3^-f_5^-f_7^-f_8^-f_9^+}{(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_9+E_{11})(-E_3-E_7-E_8+E_5+E_9+E_{12})}\\
\frac{+f_5^-f_6^-f_7^-f_3^+f_{11}^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_6-E_7+E_2+E_3+E_{11})(-E_5-E_6-E_7+E_3+E_4+E_{11})(-E_{11}+E_9)(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_5^-f_6^-f_7^-f_8^-f_{11}^+-f_3^-f_7^-f_8^-f_6^+f_{11}^+}{(-E_5-E_6+E_3+E_8)(-E_7-E_8+E_2+E_{11})(-E_7-E_8+E_4+E_{11})(-E_{11}+E_9)(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_3^-f_5^-f_7^-f_8^-f_{11}^+}{(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_2+E_{11})(-E_7-E_8+E_4+E_{11})(-E_{11}+E_9)(-E_3-E_7-E_8+E_5+E_{11}+E_{12})}
\end{array}\right)
$$

$$+\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|7,2\}\{7,8|V|9,8\}\{9,10|V|3,12\}\{11,12|V|11,6\}f_1^- f_8^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_5^- f_6^- - f_5^- f_6^- f_{10}^- f_2^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_2-E_3+E_5+E_{10})(-E_6+E_{12})} \\ \frac{+f_2^- f_3^- f_5^- f_7^- - f_2^- f_5^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_2-E_7+E_5+E_{12})} \\ \frac{+f_2^- f_7^- f_{10}^- f_6^+ - f_2^- f_3^- f_7^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_3+E_6)(-E_6+E_{12})} \\ \frac{+f_5^- f_6^- f_{10}^- f_4^+ - f_3^- f_4^- f_5^- f_6^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_6+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_6+E_{12})} \\ \frac{+f_4^- f_5^- f_7^- f_{10}^- - f_3^- f_4^- f_5^- f_7^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_4-E_7+E_5+E_{12})} \\ \frac{+f_4^- f_7^- f_{10}^- f_6^+ - f_3^- f_4^- f_7^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_3+E_6)(-E_6+E_{12})} \\ \frac{+f_2^- f_5^- f_9^- f_{10}^- - f_2^- f_3^- f_5^- f_9^-}{(-E_2+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_5-E_{10}+E_2+E_3)(-E_2-E_9+E_5+E_{12})} \\ \frac{+f_2^- f_9^- f_{10}^- f_6^+ - f_2^- f_3^- f_9^- f_6^+}{(-E_2+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_9-E_{10}+E_3+E_6)(-E_6+E_{12})} \\ \frac{+f_4^- f_5^- f_9^- f_{10}^- - f_3^- f_4^- f_5^- f_9^-}{(-E_4+E_2)(-E_4-E_9+E_5+E_6)(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_4-E_9+E_5+E_{12})} \\ \frac{+f_4^- f_9^- f_{10}^- f_6^+ - f_3^- f_4^- f_9^- f_6^+}{(-E_4+E_2)(-E_4-E_9+E_5+E_6)(-E_9+E_7)(-E_9-E_{10}+E_3+E_6)(-E_6+E_{12})} \\ \frac{+f_2^- f_3^- f_7^- f_{10}^+}{(-E_2+E_4)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_3+E_{12})} \\ \frac{+f_2^- f_3^- f_9^- f_{10}^+}{(-E_2+E_4)(-E_9+E_7)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_9-E_{10}+E_3+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_{10}^+}{(-E_4+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_3+E_{12})} \\ \frac{+f_3^- f_4^- f_9^- f_{10}^+}{(-E_4+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_9-E_{10}+E_3+E_{12})} \\ \frac{+f_2^- f_7^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_7^- f_{12}^+}{(-E_2+E_4)(-E_7+E_9)(-E_{12}+E_6)(-E_2-E_7+E_5+E_{12})(-E_7-E_{10}+E_3+E_{12})} \\ \frac{+f_4^- f_7^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_7^- f_{12}^+}{(-E_4+E_2)(-E_7+E_9)(-E_{12}+E_6)(-E_4-E_7+E_5+E_{12})(-E_7-E_{10}+E_3+E_{12})} \\ \frac{+f_2^- f_3^- f_9^- f_{12}^+ - f_2^- f_9^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_9+E_7)(-E_{12}+E_6)(-E_2-E_9+E_5+E_{12})(-E_3-E_{12}+E_9+E_{10})} \\ \frac{+f_4^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_9^- f_{12}^+}{(-E_4+E_2)(-E_9+E_7)(-E_{12}+E_6)(-E_4-E_9+E_5+E_{12})(-E_9-E_{10}+E_3+E_{12})} \\ \frac{+f_2^- f_3^- f_6^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_3-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_6+E_{12})} \\ \frac{+f_5^- f_{10}^- f_{12}^- f_2^+ - f_2^- f_3^- f_5^- f_{12}^-}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_{12}+E_6)(-E_5-E_{12}+E_2+E_7)(-E_5-E_{12}+E_2+E_9)} \\ \frac{+f_2^- f_3^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_{12}+E_6)(-E_3-E_{12}+E_7+E_{10})(-E_3-E_{12}+E_9+E_{10})} \\ \frac{+f_3^- f_4^- f_6^- f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_6+E_{12})} \\ \frac{+f_5^- f_{10}^- f_{12}^- f_4^+ - f_3^- f_4^- f_5^- f_{12}^-}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_6)(-E_5-E_{12}+E_4+E_7)(-E_5-E_{12}+E_4+E_9)} \\ \frac{+f_3^- f_4^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_6)(-E_3-E_{12}+E_7+E_{10})(-E_3-E_{12}+E_9+E_{10})} \\ \frac{+f_3^- f_5^- f_6^- f_7^+ - f_5^- f_6^- f_7^- f_{10}^-}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_7+E_9)(-E_3-E_6+E_7+E_{10})(-E_6+E_{12})} \\ \frac{+f_5^- f_6^- f_9^- f_{10}^- - f_3^- f_5^- f_6^- f_9^+}{(-E_5-E_6+E_2+E_9)(-E_5-E_6+E_4+E_9)(-E_9+E_7)(-E_9-E_{10}+E_3+E_6)(-E_6+E_{12})} \\ \frac{+f_5^- f_7^- f_{10}^- f_3^+}{(-E_7+E_9)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_3+E_{12})} \\ \frac{+f_5^- f_9^- f_{10}^- f_3^+}{(-E_9+E_7)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_3+E_6)(-E_9-E_{10}+E_3+E_{12})} \\ \frac{+f_5^- f_7^- f_{10}^- f_{12}^- - f_3^- f_5^- f_{12}^- f_7^+}{(-E_7+E_9)(-E_{12}+E_6)(-E_5-E_{12}+E_2+E_7)(-E_5-E_{12}+E_4+E_7)(-E_7-E_{10}+E_3+E_{12})} \\ \frac{+f_5^- f_9^- f_{10}^- f_{12}^- - f_3^- f_5^- f_{12}^- f_9^+}{(-E_9+E_7)(-E_{12}+E_6)(-E_5-E_{12}+E_2+E_9)(-E_5-E_{12}+E_4+E_9)(-E_9-E_{10}+E_3+E_{12})} \\ \frac{+f_3^- f_5^- f_6^- f_{10}^-}{(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_3-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_6+E_{12})} \\ \frac{+f_3^- f_5^- f_{10}^- f_{12}^-}{(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_6)(-E_3-E_{12}+E_7+E_{10})(-E_3-E_{12}+E_9+E_{10})} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|3,6\}\{7,8|V|9,2\}\{9,10|V|7,12\}\{11,12|V|11,10\}f_1^- f_6^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_9^- f_{12}^- - f_2^- f_5^- f_9^- f_{12}^- - f_2^- f_3^- f_7^- f_{12}^- + f_2^- f_5^- f_7^- f_{12}^- - f_2^- f_3^- f_9^- f_{10}^- + f_2^- f_5^- f_9^- f_{10}^- + f_2^- f_3^- f_7^- f_{10}^- - f_2^- f_5^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_3+E_5)(-E_2+E_8)(-E_9+E_7)(-E_{12}+E_{10})} \\ \frac{+f_3^- f_4^- f_9^- f_{12}^- + f_4^- f_5^- f_7^- f_{12}^- - f_4^- f_5^- f_9^- f_{12}^- - f_3^- f_4^- f_7^- f_{12}^- - f_3^- f_4^- f_9^- f_{10}^- + f_4^- f_5^- f_9^- f_{10}^- + f_3^- f_4^- f_7^- f_{10}^- - f_4^- f_5^- f_7^- f_{10}^-}{(-E_4+E_2)(-E_3+E_5)(-E_4+E_8)(-E_9+E_7)(-E_{12}+E_{10})} \\ \frac{+f_3^- f_8^- f_9^- f_{12}^- - f_3^- f_7^- f_8^- f_{12}^- + f_3^- f_7^- f_8^- f_{10}^- - f_5^- f_7^- f_8^- f_{10}^- - f_5^- f_8^- f_9^- f_{12}^- + f_5^- f_7^- f_8^- f_{12}^- + f_5^- f_8^- f_9^- f_{10}^- - f_3^- f_8^- f_9^- f_{10}^-}{(-E_3+E_5)(-E_8+E_2)(-E_8+E_4)(-E_9+E_7)(-E_{12}+E_{10})} \end{pmatrix}$$

$$+\frac{1}{3}\{1,2|V|1,4\}\{3,4|V|5,2\}\{5,6|V|7,12\}\{7,8|V|3,10\}\{9,10|V|9,8\}\{11,12|V|11,6\}f_1^- f_9^- f_{11}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_6^- f_{10}^- + f_3^- f_4^- f_6^- f_8^- - f_2^- f_3^- f_6^- f_8^- + f_2^- f_3^- f_8^- f_{12}^- - f_3^- f_4^- f_8^- f_{12}^- - f_2^- f_3^- f_{10}^- f_{12}^- + f_3^- f_4^- f_{10}^- f_{12}^- - f_3^- f_4^- f_6^- f_{10}^-}{(-E_2+E_4)(-E_3+E_5)(-E_3+E_7)(-E_{10}+E_8)(-E_6+E_{12})} \\ \frac{+f_4^- f_5^- f_8^- f_{12}^- + f_2^- f_5^- f_6^- f_8^- - f_2^- f_5^- f_8^- f_{12}^- - f_2^- f_5^- f_6^- f_{10}^- - f_4^- f_5^- f_6^- f_8^- + f_2^- f_5^- f_{10}^- f_{12}^- - f_4^- f_5^- f_{10}^- f_{12}^- + f_4^- f_5^- f_6^- f_{10}^-}{(-E_4+E_2)(-E_5+E_3)(-E_5+E_7)(-E_8+E_{10})(-E_{12}+E_6)} \\ \frac{+f_4^- f_6^- f_7^- f_{10}^- - f_2^- f_6^- f_7^- f_{10}^- - f_2^- f_7^- f_8^- f_{12}^- + f_2^- f_7^- f_{10}^- f_{12}^- + f_2^- f_6^- f_7^- f_8^- - f_4^- f_7^- f_{10}^- f_{12}^- - f_4^- f_6^- f_7^- f_8^- + f_4^- f_7^- f_8^- f_{12}^-}{(-E_4+E_2)(-E_7+E_3)(-E_7+E_5)(-E_{10}+E_8)(-E_6+E_{12})} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|7,2\}\{7,8|V|9,12\}\{9,10|V|3,6\}\{11,12|V|11,8\}f^-_{1}f^-_{11}\left(\begin{array}{r}
\frac{+f^-_{2}f^-_{3}f^-_{5}f^-_{6}f^-_{12}+f^-_{5}f^-_{6}f^-_{8}f^-_{10}f^+_{2}-f^-_{5}f^-_{6}f^-_{10}f^-_{12}f^+_{2}-f^-_{2}f^-_{3}f^-_{5}f^-_{6}f^-_{8}}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_2+E_9)(-E_2-E_3+E_5+E_{10})(-E_{12}+E_8)}\\
\frac{+f^-_{2}f^-_{3}f^-_{7}f^-_{8}f^+_{5}-f^-_{2}f^-_{3}f^-_{7}f^-_{12}f^+_{5}+f^-_{2}f^-_{5}f^-_{7}f^-_{10}f^-_{12}-f^-_{2}f^-_{5}f^-_{7}f^-_{8}f^-_{10}}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_8+E_{12})}\\
\frac{+f^-_{2}f^-_{7}f^-_{8}f^-_{10}f^+_{6}-f^-_{2}f^-_{3}f^-_{6}f^-_{7}f^-_{8}+f^-_{2}f^-_{3}f^-_{6}f^-_{7}f^-_{12}-f^-_{2}f^-_{7}f^-_{10}f^-_{12}f^+_{6}}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_3+E_6)(-E_8+E_{12})}\\
\frac{+f^-_{5}f^-_{6}f^-_{10}f^-_{12}f^+_{4}-f^-_{5}f^-_{6}f^-_{8}f^-_{10}f^+_{4}-f^-_{3}f^-_{4}f^-_{5}f^-_{6}f^-_{12}+f^-_{3}f^-_{4}f^-_{5}f^-_{6}f^-_{8}}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_6+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_8)}\\
\frac{+f^-_{4}f^-_{5}f^-_{7}f^-_{8}f^-_{10}-f^-_{3}f^-_{4}f^-_{7}f^-_{8}f^+_{5}-f^-_{4}f^-_{5}f^-_{7}f^-_{10}f^-_{12}+f^-_{3}f^-_{4}f^-_{7}f^-_{12}f^+_{5}}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7+E_9)(-E_5-E_{10}+E_3+E_4)(-E_8+E_{12})}\\
\frac{+f^-_{4}f^-_{7}f^-_{8}f^-_{10}f^+_{6}-f^-_{4}f^-_{7}f^-_{10}f^-_{12}f^+_{6}-f^-_{3}f^-_{4}f^-_{6}f^-_{7}f^-_{8}+f^-_{3}f^-_{4}f^-_{6}f^-_{7}f^-_{12}}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7+E_9)(-E_7-E_{10}+E_3+E_6)(-E_8+E_{12})}\\
\frac{+f^-_{2}f^-_{3}f^-_{8}f^-_{9}f^+_{5}+f^-_{2}f^-_{5}f^-_{9}f^-_{10}f^-_{12}-f^-_{2}f^-_{3}f^-_{9}f^-_{12}f^+_{5}-f^-_{2}f^-_{5}f^-_{8}f^-_{9}f^-_{10}}{(-E_2+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_2-E_3+E_5+E_{10})(-E_8+E_{12})}\\
\frac{+f^-_{2}f^-_{3}f^-_{6}f^-_{8}f^-_{9}-f^-_{2}f^-_{8}f^-_{9}f^-_{10}f^+_{6}-f^-_{2}f^-_{3}f^-_{6}f^-_{9}f^-_{12}+f^-_{2}f^-_{9}f^-_{10}f^-_{12}f^+_{6}}{(-E_2+E_4)(-E_2-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_6+E_9+E_{10})(-E_8+E_{12})}\\
\frac{+f^-_{4}f^-_{5}f^-_{9}f^-_{10}f^-_{12}-f^-_{3}f^-_{4}f^-_{9}f^-_{12}f^+_{5}+f^-_{3}f^-_{4}f^-_{8}f^-_{9}f^+_{5}-f^-_{4}f^-_{5}f^-_{8}f^-_{9}f^-_{10}}{(-E_4+E_2)(-E_4-E_9+E_5+E_6)(-E_9+E_7)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_8)}\\
\frac{+f^-_{3}f^-_{4}f^-_{6}f^-_{9}f^-_{12}-f^-_{3}f^-_{4}f^-_{6}f^-_{8}f^-_{9}-f^-_{4}f^-_{9}f^-_{10}f^-_{12}f^+_{6}+f^-_{4}f^-_{8}f^-_{9}f^-_{10}f^+_{6}}{(-E_4+E_2)(-E_4-E_9+E_5+E_6)(-E_9+E_7)(-E_3-E_6+E_9+E_{10})(-E_{12}+E_8)}\\
\frac{+f^-_{2}f^-_{3}f^-_{7}f^-_{10}f^-_{12}-f^-_{2}f^-_{3}f^-_{7}f^-_{8}f^-_{10}}{(-E_2+E_4)(-E_7+E_9)(-E_2-E_3+E_5+E_{10})(-E_7-E_{10}+E_3+E_6)(-E_{12}+E_8)}\\
\frac{+f^-_{2}f^-_{3}f^-_{8}f^-_{9}f^-_{10}-f^-_{2}f^-_{3}f^-_{9}f^-_{10}f^-_{12}}{(-E_2+E_4)(-E_9+E_7)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_8+E_{12})}\\
\frac{+f^-_{3}f^-_{4}f^-_{7}f^-_{8}f^-_{10}-f^-_{3}f^-_{4}f^-_{7}f^-_{10}f^-_{12}}{(-E_4+E_2)(-E_7+E_9)(-E_3-E_4+E_5+E_{10})(-E_7-E_{10}+E_3+E_6)(-E_8+E_{12})}\\
\frac{+f^-_{3}f^-_{4}f^-_{8}f^-_{9}f^-_{10}-f^-_{3}f^-_{4}f^-_{9}f^-_{10}f^-_{12}}{(-E_4+E_2)(-E_9+E_7)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_8+E_{12})}\\
\frac{+f^-_{2}f^-_{3}f^-_{6}f^-_{12}f^+_{10}-f^-_{2}f^-_{3}f^-_{6}f^-_{8}f^+_{10}}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_3-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_{12}+E_8)}\\
\frac{+f^-_{3}f^-_{4}f^-_{6}f^-_{12}f^+_{10}-f^-_{3}f^-_{4}f^-_{6}f^-_{8}f^+_{10}}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_{12}+E_8)}\\
\frac{+f^-_{5}f^-_{6}f^-_{7}f^-_{8}f^-_{10}-f^-_{5}f^-_{6}f^-_{7}f^-_{10}f^-_{12}-f^-_{3}f^-_{5}f^-_{6}f^-_{8}f^+_{7}+f^-_{3}f^-_{5}f^-_{6}f^-_{12}f^+_{7}}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_7+E_9)(-E_7-E_{10}+E_3+E_6)(-E_8+E_{12})}\\
\frac{+f^-_{3}f^-_{5}f^-_{6}f^-_{8}f^+_{9}-f^-_{3}f^-_{5}f^-_{6}f^-_{12}f^+_{9}-f^-_{5}f^-_{6}f^-_{8}f^-_{9}f^-_{10}+f^-_{5}f^-_{6}f^-_{9}f^-_{10}f^-_{12}}{(-E_5-E_6+E_2+E_9)(-E_5-E_6+E_4+E_9)(-E_9+E_7)(-E_3-E_6+E_9+E_{10})(-E_8+E_{12})}\\
\frac{+f^-_{5}f^-_{7}f^-_{8}f^-_{10}f^+_{3}-f^-_{5}f^-_{7}f^-_{10}f^-_{12}f^+_{3}}{(-E_7+E_9)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_7-E_{10}+E_3+E_6)(-E_8+E_{12})}\\
\frac{+f^-_{5}f^-_{8}f^-_{9}f^-_{10}f^+_{3}-f^-_{5}f^-_{9}f^-_{10}f^-_{12}f^+_{3}}{(-E_9+E_7)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_3+E_6)(-E_8+E_{12})}\\
\frac{+f^-_{3}f^-_{5}f^-_{6}f^-_{8}f^-_{10}-f^-_{3}f^-_{5}f^-_{6}f^-_{10}f^-_{12}}{(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_3-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_8+E_{12})}
\end{array}\right)$$

$$+\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|3,6\}\{7,8|V|9,12\}\{9,10|V|11,2\}\{11,12|V|7,10\}f^-_{1}f^-_{6}\left(\begin{array}{r}
\frac{+f^-_{2}f^-_{5}f^-_{9}f^-_{11}f^-_{12}-f^-_{2}f^-_{3}f^-_{9}f^-_{11}f^-_{12}+f^-_{2}f^-_{3}f^-_{7}f^-_{11}f^+_{9}+f^-_{2}f^-_{5}f^-_{7}f^-_{9}f^-_{10}-f^-_{2}f^-_{5}f^-_{9}f^-_{10}f^-_{12}-f^-_{2}f^-_{5}f^-_{7}f^-_{11}f^+_{9}-f^-_{2}f^-_{3}f^-_{7}f^-_{9}f^-_{10}+f^-_{2}f^-_{3}f^-_{9}f^-_{10}f^-_{12}}{(-E_2+E_4)(-E_5+E_3)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_2+E_7)}\\
\frac{+f^-_{2}f^-_{5}f^-_{11}f^-_{12}f^+_{10}-f^-_{2}f^-_{5}f^-_{7}f^-_{10}f^-_{11}-f^-_{2}f^-_{3}f^-_{11}f^-_{12}f^+_{10}+f^-_{2}f^-_{3}f^-_{7}f^-_{10}f^-_{11}}{(-E_2+E_4)(-E_5+E_3)(-E_2+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f^-_{2}f^-_{5}f^-_{7}f^-_{11}f^-_{12}-f^-_{2}f^-_{3}f^-_{7}f^-_{11}f^-_{12}-f^-_{2}f^-_{5}f^-_{7}f^-_{10}f^+_{12}+f^-_{2}f^-_{3}f^-_{7}f^-_{10}f^+_{12}}{(-E_2+E_4)(-E_5+E_3)(-E_2+E_8)(-E_2-E_7+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f^-_{3}f^-_{4}f^-_{9}f^-_{11}f^-_{12}-f^-_{4}f^-_{5}f^-_{9}f^-_{11}f^-_{12}+f^-_{4}f^-_{5}f^-_{7}f^-_{11}f^+_{9}-f^-_{4}f^-_{5}f^-_{7}f^-_{9}f^-_{10}+f^-_{4}f^-_{5}f^-_{9}f^-_{10}f^-_{12}-f^-_{3}f^-_{4}f^-_{7}f^-_{11}f^+_{9}-f^-_{3}f^-_{4}f^-_{9}f^-_{10}f^-_{12}+f^-_{3}f^-_{4}f^-_{7}f^-_{9}f^-_{10}}{(-E_4+E_2)(-E_3+E_5)(-E_4+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_4+E_7)}\\
\frac{+f^-_{4}f^-_{5}f^-_{11}f^-_{12}f^+_{10}+f^-_{3}f^-_{4}f^-_{7}f^-_{10}f^-_{11}-f^-_{4}f^-_{5}f^-_{7}f^-_{10}f^-_{11}-f^-_{3}f^-_{4}f^-_{11}f^-_{12}f^+_{10}}{(-E_4+E_2)(-E_5+E_3)(-E_4+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f^-_{4}f^-_{5}f^-_{7}f^-_{11}f^-_{12}-f^-_{3}f^-_{4}f^-_{7}f^-_{11}f^-_{12}+f^-_{3}f^-_{4}f^-_{7}f^-_{10}f^+_{12}-f^-_{4}f^-_{5}f^-_{7}f^-_{10}f^+_{12}}{(-E_4+E_2)(-E_5+E_3)(-E_4+E_8)(-E_4-E_7+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f^-_{3}f^-_{8}f^-_{9}f^-_{11}f^-_{12}+f^-_{3}f^-_{7}f^-_{8}f^-_{9}f^-_{10}-f^-_{3}f^-_{7}f^-_{8}f^-_{11}f^+_{9}+f^-_{5}f^-_{8}f^-_{9}f^-_{10}f^-_{12}+f^-_{5}f^-_{7}f^-_{8}f^-_{11}f^+_{9}-f^-_{5}f^-_{8}f^-_{9}f^-_{11}f^-_{12}-f^-_{3}f^-_{8}f^-_{9}f^-_{10}f^-_{12}-f^-_{5}f^-_{7}f^-_{8}f^-_{9}f^-_{10}}{(-E_3+E_5)(-E_8+E_2)(-E_8+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f^-_{5}f^-_{8}f^-_{11}f^-_{12}f^+_{10}-f^-_{3}f^-_{8}f^-_{11}f^-_{12}f^+_{10}+f^-_{3}f^-_{7}f^-_{8}f^-_{10}f^-_{11}-f^-_{5}f^-_{7}f^-_{8}f^-_{10}f^-_{11}}{(-E_5+E_3)(-E_8+E_2)(-E_8+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f^-_{3}f^-_{7}f^-_{8}f^-_{11}f^-_{12}-f^-_{3}f^-_{7}f^-_{8}f^-_{10}f^+_{12}+f^-_{5}f^-_{7}f^-_{8}f^-_{10}f^+_{12}-f^-_{5}f^-_{7}f^-_{8}f^-_{11}f^-_{12}}{(-E_3+E_5)(-E_8+E_2)(-E_8+E_4)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})}\\
\frac{+f^-_{3}f^-_{7}f^-_{9}f^-_{10}f^+_{11}+f^-_{5}f^-_{9}f^-_{10}f^-_{12}f^+_{11}-f^-_{5}f^-_{7}f^-_{9}f^-_{10}f^+_{11}-f^-_{3}f^-_{9}f^-_{10}f^-_{12}f^+_{11}}{(-E_3+E_5)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}\\
\frac{+f^-_{3}f^-_{9}f^-_{11}f^-_{12}f^+_{7}-f^-_{3}f^-_{9}f^-_{10}f^-_{12}f^+_{7}+f^-_{5}f^-_{9}f^-_{10}f^-_{12}f^+_{7}-f^-_{5}f^-_{9}f^-_{11}f^-_{12}f^+_{7}}{(-E_3+E_5)(-E_9-E_{12}+E_2+E_7)(-E_9-E_{12}+E_4+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_7+E_{10})}
\end{array}\right)$$

$$+\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|7,2\}\{7,8|V|9,6\}\{9,10|V|3,12\}\{11,12|V|11,10\}f_1^- f_{11}^- \left(\begin{array}{c}
\frac{+f_2^- f_3^- f_5^- f_6^- f_{10}^- - f_2^- f_3^- f_5^- f_6^- f_{12}^- + f_2^- f_3^- f_7^- f_{12}^- f_5^+ - f_2^- f_3^- f_7^- f_{10}^- f_5^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_3+E_5+E_8)(-E_3+E_9)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_{12}^- f_2^+ + f_2^- f_5^- f_7^- f_8^- f_{10}^- - f_2^- f_5^- f_7^- f_8^- f_{12}^- - f_5^- f_6^- f_8^- f_{10}^- f_2^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_2+E_9)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{12}^- - f_2^- f_3^- f_6^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_7^- f_8^- f_{12}^- f_6^+ - f_2^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_6+E_9)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{10}^- - f_2^- f_7^- f_9^- f_{10}^- f_5^+ + f_2^- f_7^- f_9^- f_{12}^- f_5^+ - f_2^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_9+E_3)(-E_2-E_9+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_6^- f_7^- f_9^- f_{10}^- - f_2^- f_6^- f_7^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_9+E_3)(-E_6-E_9+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{10}^- - f_3^- f_4^- f_5^- f_6^- f_{12}^- + f_3^- f_4^- f_7^- f_{12}^- f_5^+ - f_3^- f_4^- f_7^- f_{10}^- f_5^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_3+E_9)(-E_{10}+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- + f_5^- f_6^- f_8^- f_{12}^- f_4^+ - f_5^- f_6^- f_8^- f_{10}^- f_4^+ - f_4^- f_5^- f_7^- f_8^- f_{12}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_4+E_9)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{12}^- - f_3^- f_4^- f_6^- f_7^- f_{10}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_{12}+E_{10})} \\
\frac{+f_4^- f_7^- f_8^- f_{12}^- f_6^+ - f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_6+E_9)(-E_{12}+E_{10})} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_5^+ - f_4^- f_5^- f_6^- f_9^- f_{10}^- - f_4^- f_7^- f_9^- f_{12}^- f_5^+ + f_4^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_9+E_3)(-E_4-E_9+E_5+E_8)(-E_{10}+E_{12})} \\
\frac{+f_4^- f_6^- f_7^- f_9^- f_{12}^- - f_4^- f_6^- f_7^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_9+E_3)(-E_6-E_9+E_7+E_8)(-E_{12}+E_{10})} \\
\frac{+f_2^- f_3^- f_6^- f_{12}^- f_8^+ - f_2^- f_3^- f_6^- f_{10}^- f_8^+ - f_2^- f_3^- f_7^- f_8^- f_{12}^- + f_2^- f_3^- f_7^- f_8^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_{12}+E_{10})} \\
\frac{+f_3^- f_4^- f_6^- f_{10}^- f_8^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- - f_3^- f_4^- f_6^- f_{12}^- f_8^+ + f_3^- f_4^- f_7^- f_8^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_{10}+E_{12})} \\
\frac{+f_2^- f_6^- f_9^- f_{10}^- f_8^+ - f_2^- f_6^- f_9^- f_{12}^- f_8^+ + f_2^- f_7^- f_8^- f_9^- f_{12}^- - f_2^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_9+E_3)(-E_2-E_9+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_4^- f_6^- f_9^- f_{10}^- f_8^+ + f_4^- f_7^- f_8^- f_9^- f_{12}^- - f_4^- f_6^- f_9^- f_{12}^- f_8^+ - f_4^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_9+E_3)(-E_4-E_9+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_{12}^- f_7^+ - f_3^- f_5^- f_6^- f_{10}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_{12}+E_{10})} \\
\frac{+f_5^- f_6^- f_7^- f_8^- f_{12}^- - f_5^- f_6^- f_7^- f_8^- f_{10}^-}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_6+E_9)(-E_{12}+E_{10})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_7^+ - f_5^- f_6^- f_9^- f_{12}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_9+E_3)(-E_6-E_9+E_7+E_8)(-E_{10}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_{10}^- - f_3^- f_5^- f_6^- f_8^- f_{12}^- + f_5^- f_7^- f_8^- f_{12}^- f_3^+ - f_5^- f_7^- f_8^- f_{10}^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_{10}+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_{10}^- f_9^+ - f_5^- f_7^- f_8^- f_{12}^- f_9^+ - f_5^- f_6^- f_8^- f_9^- f_{10}^- + f_5^- f_6^- f_8^- f_9^- f_{12}^-}{(-E_9+E_3)(-E_5-E_8+E_2+E_9)(-E_5-E_8+E_4+E_9)(-E_7-E_8+E_6+E_9)(-E_{10}+E_{12})}
\end{array} \right)$$

$$+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|9,2\}\{9,10|V|11,8\}\{11,12|V|3,6\}f_1^- \left(\begin{array}{r}
\frac{+f_2^- f_5^- f_6^- f_9^- f_{12}^- f_7^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_7^+ - f_2^- f_5^- f_6^- f_7^- f_8^- f_{12}^- + f_2^- f_3^- f_5^- f_6^- f_7^- f_8^-}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_2+E_{11})(-E_5-E_{12}+E_2+E_3)} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- + f_2^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ - f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_5^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_2+E_{11})(-E_5-E_{12}+E_2+E_3)} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_2^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+ - f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^- + f_2^- f_3^- f_6^- f_7^- f_8^- f_{10}^-}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_2+E_{11})(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_8^- f_9^- - f_2^- f_5^- f_6^- f_8^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_5-E_6+E_2+E_{11})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_5^+ f_8^+ - f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ - f_2^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- + f_2^- f_3^- f_9^- f_{11}^- f_5^+ f_7^+ - f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_7^+ - f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_2-E_{11}+E_5+E_6)(-E_2-E_{11}+E_7+E_{10})(-E_5-E_{12}+E_2+E_3)} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{11}^- f_7^+ + f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_9^- f_{11}^- f_{12}^- f_6^+ f_7^+ - f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_5+E_6)(-E_2-E_{11}+E_7+E_{10})(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_8^- f_9^- f_{11}^- f_5^+ - f_2^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_8^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_3^- f_6^- f_8^- f_9^- f_{11}^-}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_{11}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_6)} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_2+E_{11})(-E_2-E_3+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_7^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_2-E_{11}+E_7+E_{10})(-E_2-E_3+E_5+E_{12})(-E_{11}-E_{12}+E_3+E_6)} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_3+E_5+E_{12})(-E_9-E_{10}-E_{12}+E_3+E_6+E_8)} \\
\frac{+f_2^- f_3^- f_8^- f_9^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})(-E_{11}-E_{12}+E_3+E_6)} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_7^+ f_{12}^+ - f_2^- f_3^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{12})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{12})(-E_3-E_6-E_8+E_9+E_{10}+E_{12})(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_{12}^- f_7^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_7^+ - f_4^- f_5^- f_6^- f_7^- f_8^- f_{12}^- + f_3^- f_4^- f_5^- f_6^- f_7^- f_8^-}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_4+E_{11})(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_5^+ + f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- - f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_5^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_3^- f_4^- f_6^- f_7^- f_8^- f_{10}^- - f_4^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_4+E_{11})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_9^- f_{12}^- - f_3^- f_4^- f_5^- f_6^- f_8^- f_9^-}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_5-E_6-E_8+E_4+E_9+E_{10})(-E_5-E_6+E_4+E_{11})(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_3^- f_4^- f_9^- f_{10}^- f_5^+ f_8^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_4-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+ - f_4^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_4-E_9-E_{10}+E_5+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_6-E_8+E_9+E_{10}+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_7^+ + f_3^- f_4^- f_9^- f_{11}^- f_5^+ f_7^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+}{(-E_4+E_2)(-E_7-E_8+E_4+E_9)(-E_4-E_{11}+E_5+E_6)(-E_4-E_{11}+E_7+E_{10})(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{11}^- f_7^+ - f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- + f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_4^- f_9^- f_{11}^- f_{12}^- f_6^+ f_7^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_4-E_{11}+E_5+E_6)(-E_4-E_{11}+E_7+E_{10})(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{11}^- f_5^+ - f_4^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_4-E_{11}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_{11}^- - f_4^- f_8^- f_9^- f_{11}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_4-E_{11}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^- - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_7-E_8+E_4+E_9)(-E_7-E_{10}+E_4+E_{11})(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- - f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_7^+}{(-E_4+E_2)(-E_7-E_8+E_4+E_9)(-E_4-E_{11}+E_7+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_3+E_6)} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_5+E_{12})(-E_9-E_{10}-E_{12}+E_3+E_6+E_8)} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_3+E_6)} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_7^+ f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_6-E_8+E_9+E_{10}+E_{12})(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- + f_2^- f_3^- f_5^- f_6^- f_8^- f_{10}^+ - f_2^- f_5^- f_6^- f_8^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_5-E_6+E_2+E_{11})(-E_5-E_{12}+E_2+E_3)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- - f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- + f_4^- f_5^- f_6^- f_8^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_4-E_9-E_{10}+E_5+E_6+E_8)(-E_5-E_6+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_8^- f_{11}^- f_5^+ f_{10}^+ - f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_5^- f_9^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_3^- f_9^- f_{10}^- f_{11}^- f_5^+}{(-E_2+E_4)(-E_2-E_{11}+E_5+E_6)(-E_2-E_{11}+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_9^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{11}^- - f_2^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ + f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_2-E_{11}+E_5+E_6)(-E_2-E_{11}+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_3+E_6)} \\
\frac{+f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_8^- f_{11}^- f_5^+ f_{10}^+ - f_4^- f_5^- f_9^- f_{10}^- f_{11}^- f_{12}^- + f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_5^+}{(-E_4+E_2)(-E_4-E_{11}+E_5+E_6)(-E_4-E_{11}+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{11}^- - f_4^- f_9^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{10}^+ + f_4^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+}{(-E_4+E_2)(-E_4-E_{11}+E_5+E_6)(-E_4-E_{11}+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_9^- f_{10}^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_{11}+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})(-E_{11}-E_{12}+E_3+E_6)} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_4-E_{11}+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_3+E_6)} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_6^- f_8^- f_{10}^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{12})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})(-E_9-E_{10}-E_{12}+E_3+E_6+E_8)(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_6^- f_8^- f_{10}^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_9-E_{10}-E_{12}+E_3+E_6+E_8)(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_9^+ - f_5^- f_6^- f_7^- f_8^- f_{12}^- f_9^+}{(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_3-E_7-E_8+E_5+E_9+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_{10}^- f_5^+ f_9^+ - f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_9^+}{(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_7-E_8+E_5+E_9+E_{12})} \\
\frac{+f_7^- f_8^- f_{10}^- f_{12}^- f_6^+ f_9^+ - f_3^- f_6^- f_7^- f_8^- f_{10}^- f_9^+}{(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{10}-E_{12}+E_3+E_6+E_8)} \\
\frac{+f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_9^+ - f_3^- f_7^- f_8^- f_{11}^- f_5^+ f_9^+}{(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_9-E_{12}+E_3+E_7+E_8)} \\
\frac{+f_3^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ - f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ f_9^+}{(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_6+E_{11}+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_{10}^- f_{12}^- f_9^+}{(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_7-E_8+E_5+E_9+E_{12})(-E_9-E_{10}-E_{12}+E_3+E_6+E_8)}
\end{array}\right)$$

$$+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|3,8\}\{9,10|V|11,2\}\{11,12|V|9,6\}f_1^-f_8^-\left(\begin{array}{r}
\frac{+f_2^-f_3^-f_5^-f_6^-f_9^- - f_2^-f_3^-f_5^-f_6^-f_{11}^-}{(-E_2+E_4)(-E_3+E_7)(-E_5-E_6+E_3+E_{10})(-E_5-E_6-E_9+E_2+E_3+E_{11})(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_9^- - f_3^-f_4^-f_5^-f_6^-f_{11}^-}{(-E_4+E_2)(-E_3+E_7)(-E_5-E_6+E_3+E_{10})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_9^-f_{10}^- - f_2^-f_3^-f_5^-f_{10}^-f_{11}^-}{(-E_2+E_4)(-E_3+E_7)(-E_3-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_{10}^-f_{11}^-f_6^+ - f_2^-f_3^-f_9^-f_{10}^-f_6^+}{(-E_2+E_4)(-E_3+E_7)(-E_3-E_{10}+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_6+E_{10}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_9^-f_{10}^- - f_3^-f_4^-f_5^-f_{10}^-f_{11}^-}{(-E_4+E_2)(-E_3+E_7)(-E_3-E_{10}+E_5+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_{10}^-f_{11}^-f_6^+ - f_3^-f_4^-f_9^-f_{10}^-f_6^+}{(-E_4+E_2)(-E_3+E_7)(-E_3-E_{10}+E_5+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_6+E_{10}+E_{12})}\\
\frac{+f_2^-f_5^-f_6^-f_7^-f_9^- - f_2^-f_5^-f_6^-f_7^-f_{11}^-}{(-E_2+E_4)(-E_7+E_3)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_2-E_7+E_5+E_{12})}\\
\frac{+f_4^-f_5^-f_6^-f_7^-f_{11}^- - f_4^-f_5^-f_6^-f_7^-f_9^-}{(-E_4+E_2)(-E_7+E_3)(-E_5-E_6+E_7+E_{10})(-E_4-E_7-E_{11}+E_5+E_6+E_9)(-E_4-E_7+E_5+E_{12})}\\
\frac{+f_2^-f_5^-f_7^-f_{10}^-f_{11}^- - f_2^-f_5^-f_7^-f_9^-f_{10}^-}{(-E_2+E_4)(-E_7+E_3)(-E_7-E_{10}+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_7+E_5+E_{12})}\\
\frac{+f_2^-f_7^-f_{10}^-f_{11}^-f_6^+ - f_2^-f_7^-f_9^-f_{10}^-f_6^+}{(-E_2+E_4)(-E_7+E_3)(-E_7-E_{10}+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_6+E_{10}+E_{12})}\\
\frac{+f_4^-f_5^-f_7^-f_9^-f_{10}^- - f_4^-f_5^-f_7^-f_{10}^-f_{11}^-}{(-E_4+E_2)(-E_7+E_3)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_4-E_7+E_5+E_{12})}\\
\frac{+f_4^-f_7^-f_{10}^-f_{11}^-f_6^+ - f_4^-f_7^-f_9^-f_{10}^-f_6^+}{(-E_4+E_2)(-E_7+E_3)(-E_7-E_{10}+E_5+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_6+E_{10}+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_{11}^-f_9^+}{(-E_2+E_4)(-E_3+E_7)(-E_2-E_3-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^-f_3^-f_{11}^-f_6^+f_9^+}{(-E_2+E_4)(-E_3+E_7)(-E_2-E_3-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_{11}^-f_9^+}{(-E_4+E_2)(-E_3+E_7)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^-f_4^-f_{11}^-f_6^+f_9^+}{(-E_4+E_2)(-E_3+E_7)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_7^-f_{11}^-f_9^+}{(-E_2+E_4)(-E_7+E_3)(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_7+E_5+E_{12})}\\
\frac{+f_2^-f_7^-f_{11}^-f_6^+f_9^+}{(-E_2+E_4)(-E_7+E_3)(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_4^-f_5^-f_7^-f_{11}^-f_9^+}{(-E_4+E_2)(-E_7+E_3)(-E_4-E_7-E_{11}+E_5+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_7+E_5+E_{12})}\\
\frac{+f_4^-f_7^-f_{11}^-f_6^+f_9^+}{(-E_4+E_2)(-E_7+E_3)(-E_4-E_7-E_{11}+E_5+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_9^-f_{10}^-f_{12}^+ - f_2^-f_3^-f_{10}^-f_{11}^-f_{12}^+}{(-E_2+E_4)(-E_3+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_3+E_5+E_{12})(-E_{10}-E_{12}+E_2+E_6)}\\
\frac{+f_2^-f_3^-f_{11}^-f_9^+f_{12}^+}{(-E_2+E_4)(-E_3+E_7)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)}\\
\frac{+f_2^-f_7^-f_{10}^-f_{11}^-f_{12}^+ - f_2^-f_7^-f_9^-f_{10}^-f_{12}^+}{(-E_2+E_4)(-E_7+E_3)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_7+E_5+E_{12})(-E_{10}-E_{12}+E_2+E_6)}\\
\frac{+f_2^-f_7^-f_{11}^-f_9^+f_{12}^+}{(-E_2+E_4)(-E_7+E_3)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_7+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)}\\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_{12}^+ - f_3^-f_4^-f_{10}^-f_{11}^-f_{12}^+}{(-E_4+E_2)(-E_3+E_7)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_4+E_5+E_{12})(-E_{10}-E_{12}+E_4+E_6)}\\
\frac{+f_3^-f_4^-f_{11}^-f_9^+f_{12}^+}{(-E_4+E_2)(-E_3+E_7)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)}\\
\frac{+f_4^-f_7^-f_{10}^-f_{11}^-f_{12}^+ - f_4^-f_7^-f_9^-f_{10}^-f_{12}^+}{(-E_4+E_2)(-E_7+E_3)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_7+E_5+E_{12})(-E_{10}-E_{12}+E_4+E_6)}\\
\frac{+f_4^-f_7^-f_{11}^-f_9^+f_{12}^+}{(-E_4+E_2)(-E_7+E_3)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_7+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)}\\
\frac{+f_2^-f_3^-f_6^-f_9^-f_{12}^+ - f_2^-f_3^-f_6^-f_{11}^-f_{12}^+}{(-E_2+E_4)(-E_3+E_7)(-E_2-E_3+E_5+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_9^-f_{12}^+ - f_3^-f_4^-f_6^-f_{11}^-f_{12}^+}{(-E_4+E_2)(-E_3+E_7)(-E_3-E_4+E_5+E_{12})(-E_4-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_2^-f_6^-f_7^-f_9^-f_{12}^+ - f_2^-f_6^-f_7^-f_{11}^-f_{12}^+}{(-E_2+E_4)(-E_7+E_3)(-E_2-E_7+E_5+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_4^-f_6^-f_7^-f_9^-f_{12}^+ - f_4^-f_6^-f_7^-f_{11}^-f_{12}^+}{(-E_4+E_2)(-E_7+E_3)(-E_4-E_7+E_5+E_{12})(-E_4-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_6^-f_{11}^-f_{10}^+ - f_2^-f_5^-f_6^-f_9^-f_{10}^+}{(-E_2+E_4)(-E_5-E_6+E_3+E_{10})(-E_5-E_6+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_6+E_{10}+E_{12})}\\
\frac{+f_4^-f_5^-f_6^-f_{11}^-f_{10}^+ - f_4^-f_5^-f_6^-f_9^-f_{10}^+}{(-E_4+E_2)(-E_5-E_6+E_3+E_{10})(-E_5-E_6+E_7+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_4-E_6+E_{10}+E_{12})}\\
\frac{+f_2^-f_5^-f_6^-f_9^-f_{11}^+}{(-E_2+E_4)(-E_5-E_6-E_9+E_2+E_3+E_{11})(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_4^-f_5^-f_6^-f_9^-f_{11}^+}{(-E_4+E_2)(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_5-E_6-E_9+E_4+E_7+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_9^-f_{10}^-f_{12}^- - f_2^-f_5^-f_{10}^-f_{11}^-f_{12}^-}{(-E_2+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_2+E_7)(-E_{10}-E_{12}+E_2+E_6)}\\
\frac{+f_2^-f_5^-f_{11}^-f_{12}^-f_9^+}{(-E_2+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_2+E_7)(-E_{11}-E_{12}+E_6+E_9)}\\
\frac{+f_4^-f_5^-f_9^-f_{10}^-f_{12}^- - f_4^-f_5^-f_{10}^-f_{11}^-f_{12}^-}{(-E_4+E_2)(-E_9-E_{10}+E_4+E_{11})(-E_5-E_{12}+E_3+E_4)(-E_5-E_{12}+E_4+E_7)(-E_{10}-E_{12}+E_4+E_6)}\\
\frac{+f_4^-f_5^-f_{11}^-f_{12}^-f_9^+}{(-E_4+E_2)(-E_4-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_5-E_{12}+E_4+E_7)(-E_{11}-E_{12}+E_6+E_9)}\\
\frac{+f_2^-f_5^-f_6^-f_9^-f_{12}^- - f_2^-f_5^-f_6^-f_{11}^-f_{12}^-}{(-E_2+E_4)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_2+E_7)(-E_2-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_4^-f_5^-f_6^-f_9^-f_{12}^- - f_4^-f_5^-f_6^-f_{11}^-f_{12}^-}{(-E_4+E_2)(-E_5-E_{12}+E_3+E_4)(-E_5-E_{12}+E_4+E_7)(-E_4-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_5^-f_6^-f_9^-f_3^+f_{11}^+}{(-E_3+E_7)(-E_5-E_6+E_3+E_{10})(-E_5-E_6-E_9+E_2+E_3+E_{11})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_3^-f_9^-f_{10}^-f_6^+f_{11}^+}{(-E_3+E_7)(-E_3-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_3^-f_5^-f_9^-f_{10}^-f_{11}^+}{(-E_3+E_7)(-E_3-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})}\\
\frac{+f_5^-f_6^-f_9^-f_{12}^-f_3^+ - f_5^-f_6^-f_{11}^-f_{12}^-f_3^+}{(-E_3+E_7)(-E_5-E_6+E_3+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_5^-f_9^-f_{10}^-f_{12}^-f_3^+ - f_5^-f_{10}^-f_{11}^-f_{12}^-f_3^+}{(-E_3+E_7)(-E_3-E_{10}+E_5+E_6)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})}\\
\frac{+f_3^-f_9^-f_{10}^-f_{12}^-f_6^+ - f_3^-f_{10}^-f_{11}^-f_{12}^-f_6^+}{(-E_3+E_7)(-E_3-E_{10}+E_5+E_6)(-E_{10}-E_{12}+E_2+E_6)(-E_{10}-E_{12}+E_4+E_6)(-E_6-E_9+E_{11}+E_{12})}
\end{array}\right.$$

$$+\{1,2|V|1,4\}\{3,4|V|5,2\}\{5,6|V|7,12\}\{7,8|V|3,10\}\{9,10|V|11,6\}\{11,12|V|9,8\}f_1^- \left(\begin{array}{r}
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- - f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^- + f_2^- f_3^- f_6^- f_7^- f_8^- f_9^- - f_3^- f_4^- f_6^- f_7^- f_8^- f_9^-}{(-E_4+E_2)(-E_3+E_5)(-E_7-E_8+E_3+E_{10})(-E_3-E_6-E_{11}+E_7+E_8+E_9)(-E_3-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_9^- f_{11}^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_3+E_5)(-E_7-E_8+E_3+E_{10})(-E_7-E_8-E_9+E_3+E_6+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- - f_2^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- + f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^- - f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_{10}+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+ - f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_8^+ + f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_8^+}{(-E_2+E_4)(-E_3+E_5)(-E_3-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_8^+ f_{11}^+ - f_3^- f_4^- f_9^- f_{10}^- f_8^+ f_{11}^+}{(-E_2+E_4)(-E_3+E_5)(-E_3-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_9-E_{10}+E_7+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_3^- f_7^- f_8^- f_9^- f_{12}^- + f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_3+E_5)(-E_7-E_8+E_3+E_{10})(-E_7-E_{12}+E_3+E_6)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- + f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_3+E_5)(-E_3-E_{10}+E_7+E_8)(-E_7-E_{12}+E_3+E_6)(-E_3-E_9-E_{10}+E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_8^+ + f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_{10}+E_7+E_8)(-E_{10}-E_{12}+E_6+E_8)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_8^- f_{11}^- - f_2^- f_5^- f_6^- f_7^- f_8^- f_{11}^- + f_2^- f_5^- f_6^- f_7^- f_8^- f_9^- - f_4^- f_5^- f_6^- f_7^- f_8^- f_9^-}{(-E_4+E_2)(-E_5+E_3)(-E_7-E_8+E_5+E_{10})(-E_5-E_6-E_{11}+E_7+E_8+E_9)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_9^- f_{11}^+ - f_4^- f_5^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_5+E_3)(-E_7-E_8+E_5+E_{10})(-E_7-E_8-E_9+E_5+E_6+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- - f_4^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- - f_2^- f_5^- f_6^- f_7^- f_9^- f_{10}^- + f_4^- f_5^- f_6^- f_7^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5+E_3)(-E_5-E_{10}+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+ - f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+ - f_4^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ + f_2^- f_5^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_5+E_3)(-E_5-E_{10}+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_4^- f_5^- f_9^- f_{10}^- f_8^+ f_{11}^+ - f_2^- f_5^- f_9^- f_{10}^- f_8^+ f_{11}^+}{(-E_4+E_2)(-E_5+E_3)(-E_5-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_5+E_3)(-E_5-E_{10}+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_9-E_{10}+E_7+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_5^- f_7^- f_8^- f_9^- f_{12}^- + f_4^- f_5^- f_7^- f_8^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_5+E_3)(-E_7-E_8+E_5+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- - f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- + f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5+E_3)(-E_5-E_{10}+E_7+E_8)(-E_7-E_{12}+E_5+E_6)(-E_5-E_9-E_{10}+E_7+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ + f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_5+E_3)(-E_5-E_{10}+E_7+E_8)(-E_{10}-E_{12}+E_6+E_8)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_9^+ - f_2^- f_3^- f_6^- f_7^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_6-E_{11}+E_7+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_9^+ - f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_9^+}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_6-E_{11}+E_7+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ - f_4^- f_5^- f_6^- f_7^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_5+E_3)(-E_5-E_6-E_{11}+E_7+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_8^+ f_9^+ - f_4^- f_5^- f_6^- f_{11}^- f_8^+ f_9^+}{(-E_2+E_4)(-E_5+E_3)(-E_5-E_6-E_{11}+E_7+E_8+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^+ + f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_{12}^+ - f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_3+E_5)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_6+E_7+E_{12})(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_2^- f_3^- f_6^- f_{11}^- f_9^+ f_{12}^+ - f_3^- f_4^- f_6^- f_{11}^- f_9^+ f_{12}^+}{(-E_2+E_4)(-E_3+E_5)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^+ - f_4^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^+ - f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+ + f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_5+E_3)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_9^+ f_{12}^+ - f_4^- f_5^- f_6^- f_{11}^- f_9^+ f_{12}^+}{(-E_2+E_4)(-E_5+E_3)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_{11}^+ f_{12}^+ - f_3^- f_4^- f_9^- f_{10}^- f_{11}^+ f_{12}^+}{(-E_2+E_4)(-E_3+E_5)(-E_9-E_{10}+E_6+E_{11})(-E_{11}-E_{12}+E_8+E_9)(-E_3-E_9-E_{10}+E_7+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{11}^+ f_{12}^+ - f_4^- f_5^- f_9^- f_{10}^- f_{11}^+ f_{12}^+}{(-E_2+E_4)(-E_5+E_3)(-E_9-E_{10}+E_6+E_{11})(-E_{11}-E_{12}+E_8+E_9)(-E_5-E_9-E_{10}+E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{12}^+ - f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_6^- f_8^- f_9^- f_{12}^+ + f_2^- f_3^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_6+E_7+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_4+E_2)(-E_3+E_5)(-E_7-E_{12}+E_3+E_6)(-E_{11}-E_{12}+E_8+E_9)(-E_7-E_{11}-E_{12}+E_3+E_9+E_{10})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+ - f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+ - f_2^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ + f_4^- f_5^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_2+E_4)(-E_5+E_3)(-E_5-E_6+E_7+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_2+E_4)(-E_5+E_3)(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_8+E_9)(-E_7-E_{11}-E_{12}+E_5+E_9+E_{10})} \\
\frac{+f_4^- f_6^- f_7^- f_8^- f_9^- f_{10}^+ - f_4^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+ + f_2^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+ - f_2^- f_6^- f_7^- f_8^- f_9^- f_{10}^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_{10})(-E_7-E_8+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{10}^+ f_{11}^+ - f_4^- f_7^- f_8^- f_9^- f_{10}^+ f_{11}^+}{(-E_2+E_4)(-E_7-E_8+E_3+E_{10})(-E_7-E_8+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_4^- f_7^- f_8^- f_9^- f_{12}^- f_{10}^+ + f_2^- f_7^- f_8^- f_9^- f_{12}^- f_{10}^+ - f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_{10})(-E_7-E_8+E_5+E_{10})(-E_{10}-E_{12}+E_6+E_8)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_6^+ f_{11}^+ - f_4^- f_7^- f_8^- f_9^- f_6^+ f_{11}^+}{(-E_2+E_4)(-E_7-E_8-E_9+E_3+E_6+E_{11})(-E_7-E_8-E_9+E_5+E_6+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ + f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_3+E_6)(-E_7-E_{12}+E_5+E_6)(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ f_9^+ - f_2^- f_7^- f_{11}^- f_{12}^- f_6^+ f_9^+}{(-E_4+E_2)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_3+E_6)(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_7^- f_{11}^- f_{12}^- f_9^+ f_{10}^+ - f_4^- f_7^- f_{11}^- f_{12}^- f_9^+ f_{10}^+}{(-E_2+E_4)(-E_9-E_{10}+E_6+E_{11})(-E_{11}-E_{12}+E_8+E_9)(-E_7-E_{11}-E_{12}+E_3+E_9+E_{10})(-E_7-E_{11}-E_{12}+E_5+E_9+E_{10})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{12}^- f_6^+ - f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ + f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_4^- f_7^- f_8^- f_9^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_7-E_{12}+E_3+E_6)(-E_7-E_{12}+E_5+E_6)(-E_6-E_8+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})}
\end{array} \right)$$

$$\frac{+f_2^{-}f_3^{-}f_5^{-}f_6^{-}f_7^{-}f_8^{-}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_2-E_3+E_5+E_{10})(-E_3-E_7-E_8+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_5^{-}f_7^{-}f_8^{-}f_{11}^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_2-E_3+E_5+E_{10})(-E_3-E_7-E_8+E_5+E_6+E_{11})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_5^{-}f_6^{-}f_7^{-}f_9^{-}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_5^{-}f_6^{-}f_9^{-}f_8^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_5-E_6-E_8+E_2+E_9+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_5^{-}f_9^{-}f_8^{+}f_{11}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_5^{-}f_7^{-}f_9^{-}f_{11}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_2-E_3-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_5^{-}f_6^{-}f_7^{-}f_8^{-}f_{10}^{-}f_2^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_2+E_3)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_6^{-}f_7^{-}f_8^{-}f_{10}^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_2-E_3+E_5+E_{10})(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_7^{-}f_8^{-}f_{10}^{+}f_{11}^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_2-E_3+E_5+E_{10})(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_5^{-}f_7^{-}f_8^{-}f_{10}^{-}f_2^{+}f_{11}^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_2+E_3)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_5^{-}f_6^{-}f_7^{-}f_9^{-}f_{10}^{-}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_2^{-}f_5^{-}f_6^{-}f_9^{-}f_{10}^{-}f_8^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_6-E_8+E_2+E_9+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_6^{-}f_7^{-}f_9^{-}f_{10}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_6^{-}f_9^{-}f_8^{+}f_{10}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_3-E_6-E_8+E_9+E_{10}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_9^{-}f_8^{+}f_{10}^{+}f_{11}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_7^{-}f_9^{-}f_{10}^{+}f_{11}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_2-E_3-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_5^{-}f_9^{-}f_{10}^{-}f_8^{+}f_{11}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_5^{-}f_7^{-}f_9^{-}f_{10}^{-}f_{11}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_9-E_{10}+E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_5^{-}f_7^{-}f_8^{-}f_{12}^{-}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_2-E_3+E_5+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_5^{-}f_7^{-}f_9^{-}f_{12}^{-}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_2-E_3-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_5^{-}f_7^{-}f_8^{-}f_{10}^{-}f_{12}^{-}f_2^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_2+E_3)(-E_7-E_{12}+E_5+E_6)(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_5^{-}f_7^{-}f_9^{-}f_{10}^{-}f_{12}^{-}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_2+E_3)(-E_7-E_{12}+E_5+E_6)(-E_5-E_9-E_{10}+E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_5^{-}f_9^{-}f_{12}^{-}f_8^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_5^{-}f_9^{-}f_{10}^{-}f_{12}^{-}f_8^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_2+E_3)(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_7^{-}f_8^{-}f_{12}^{-}f_{10}^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_2-E_3+E_5+E_{10})(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_7^{-}f_9^{-}f_{12}^{-}f_{10}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)(-E_2-E_3-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_9^{-}f_{12}^{-}f_8^{+}f_{10}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}-E_{12}+E_3+E_6+E_8)(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_5^{-}f_6^{-}f_{11}^{-}f_7^{+}f_8^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_5-E_6-E_{11}+E_3+E_7+E_8)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_7^{-}f_8^{-}f_6^{+}f_{11}^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_3-E_7-E_8+E_5+E_6+E_{11})(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_5^{-}f_6^{-}f_7^{-}f_{11}^{-}f_9^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_6-E_{11}+E_2+E_3+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})}$$

$$\frac{+f_2^{-}f_5^{-}f_6^{-}f_{11}^{-}f_8^{+}f_9^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_6-E_{11}+E_2+E_3+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6-E_8+E_2+E_9+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_9^{-}f_6^{+}f_8^{+}f_{11}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_7^{-}f_9^{-}f_6^{+}f_{11}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_6-E_{11}+E_9+E_{10})(-E_2-E_3-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_7^{-}f_8^{-}f_{10}^{-}f_{12}^{-}f_2^{+}f_6^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_7-E_{12}+E_5+E_6)(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)}$$

$$\frac{+f_2^{-}f_7^{-}f_{11}^{-}f_{12}^{-}f_6^{+}f_8^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_3+E_8)}$$

$$\frac{+f_2^{-}f_7^{-}f_{11}^{-}f_{12}^{-}f_8^{+}f_{10}^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_{11}-E_{12}+E_3+E_8)(-E_2-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$\frac{+f_2^{-}f_7^{-}f_9^{-}f_{10}^{-}f_{12}^{-}f_6^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_7-E_{12}+E_5+E_6)(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)}$$

$$\frac{+f_2^{-}f_7^{-}f_{11}^{-}f_{12}^{-}f_6^{+}f_9^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_7-E_{11}-E_{12}+E_2+E_3+E_9)}$$

$$\frac{+f_2^{-}f_9^{-}f_{10}^{-}f_{12}^{-}f_6^{+}f_8^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_9-E_{10}-E_{12}+E_3+E_6+E_8)}$$

$$\frac{+f_2^{-}f_9^{-}f_{11}^{-}f_{12}^{-}f_6^{+}f_8^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_{11}-E_{12}+E_3+E_8)}$$

$$\frac{+f_2^{-}f_9^{-}f_{11}^{-}f_{12}^{-}f_8^{+}f_{10}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_{11}-E_{12}+E_3+E_8)(-E_2-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$\frac{+f_2^{-}f_7^{-}f_{11}^{-}f_{12}^{-}f_9^{+}f_{10}^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_7-E_{11}-E_{12}+E_2+E_3+E_9)(-E_7-E_{11}-E_{12}+E_5+E_9+E_{10})}$$

$$\frac{+f_2^{-}f_3^{-}f_7^{-}f_8^{-}f_{12}^{-}f_6^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_{12}+E_5+E_6)(-E_2-E_3-E_6+E_7+E_{10}+E_{12})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_3^{-}f_7^{-}f_9^{-}f_{12}^{-}f_6^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_7-E_{12}+E_5+E_6)(-E_2-E_3-E_6+E_7+E_{10}+E_{12})(-E_2-E_3-E_9+E_7+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_5^{-}f_7^{-}f_{11}^{-}f_{12}^{-}f_8^{+}}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_3+E_8)(-E_2-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$\frac{+f_2^{-}f_5^{-}f_7^{-}f_{11}^{-}f_{12}^{-}f_9^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_7-E_{12}+E_5+E_6)(-E_7-E_{11}-E_{12}+E_2+E_3+E_9)(-E_7-E_{11}-E_{12}+E_5+E_9+E_{10})}$$

$$\frac{+f_2^{-}f_3^{-}f_9^{-}f_{12}^{-}f_6^{+}f_8^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_3-E_6-E_8+E_9+E_{10}+E_{12})(-E_3-E_8+E_{11}+E_{12})}$$

$$\frac{+f_2^{-}f_5^{-}f_9^{-}f_{11}^{-}f_{12}^{-}f_8^{+}}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_{11}-E_{12}+E_3+E_8)(-E_2-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|3,8\}\{7,8|V|7,10\}\{9,10|V|11,2\}\{11,12|V|9,6\}f_1^- f_7^- \left(\begin{array}{r}
\frac{+f_2^- f_5^- f_6^- f_9^- f_3^+ - f_2^- f_3^- f_5^- f_6^- f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_5-E_6+E_3+E_{10})(-E_5-E_6-E_9+E_2+E_3+E_{11})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_3^+ - f_3^- f_4^- f_5^- f_6^- f_{11}^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_5-E_6+E_3+E_{10})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_8^- f_{11}^- f_5^+ - f_2^- f_3^- f_8^- f_9^- f_5^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_8+E_{10})(-E_2-E_{11}+E_8+E_9)(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_8^- f_9^- - f_2^- f_5^- f_6^- f_8^- f_9^- - f_2^- f_3^- f_6^- f_8^- f_{11}^- + f_2^- f_5^- f_6^- f_{11}^- f_8^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_8+E_{10})(-E_8-E_9+E_2+E_{11})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_5^+ - f_3^- f_4^- f_8^- f_9^- f_5^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_8+E_{10})(-E_4-E_{11}+E_8+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_9^- - f_4^- f_5^- f_6^- f_8^- f_9^- + f_4^- f_5^- f_6^- f_{11}^- f_8^+ - f_3^- f_4^- f_6^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_8+E_{10})(-E_8-E_9+E_4+E_{11})(-E_4-E_6+E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_{10}^- f_{11}^- f_5^+ - f_2^- f_3^- f_9^- f_{10}^- f_5^+}{(-E_2+E_4)(-E_3-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{10}^- - f_2^- f_5^- f_6^- f_{11}^- f_{10}^+ + f_2^- f_3^- f_6^- f_{10}^- f_{11}^- - f_2^- f_3^- f_6^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_{10})(-E_{10}+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_5^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_5^+}{(-E_4+E_2)(-E_3-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_{11}^- f_{10}^+ - f_4^- f_5^- f_6^- f_9^- f_{10}^- - f_3^- f_4^- f_6^- f_{10}^- f_{11}^- + f_3^- f_4^- f_6^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_{10})(-E_{10}+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_6+E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_{11}^- f_{12}^- - f_5^- f_8^- f_9^- f_{12}^- f_2^+ + f_2^- f_3^- f_8^- f_9^- f_{12}^- - f_2^- f_3^- f_8^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_8+E_{10})(-E_2-E_{11}+E_8+E_9)(-E_5-E_{12}+E_2+E_3)(-E_8-E_{12}+E_2+E_6)} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_{12}^- - f_3^- f_4^- f_8^- f_9^- f_{12}^- + f_5^- f_8^- f_9^- f_{12}^- f_4^+ - f_4^- f_5^- f_8^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_8+E_{10})(-E_4-E_{11}+E_8+E_9)(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_4+E_6)} \\
\frac{+f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^- - f_5^- f_9^- f_{10}^- f_{12}^- f_2^+ + f_2^- f_3^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_{10}+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_{10}-E_{12}+E_2+E_6)} \\
\frac{+f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- - f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- - f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_4^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_{10}+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{10}-E_{12}+E_4+E_6)} \\
\frac{+f_2^- f_3^- f_{11}^- f_5^+ f_9^+}{(-E_2+E_4)(-E_2-E_3-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{11}^- - f_2^- f_3^- f_6^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_5-E_6-E_9+E_2+E_3+E_{11})(-E_2-E_{11}+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_5^+ f_9^+}{(-E_4+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_4-E_{11}+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_9^+ - f_4^- f_5^- f_6^- f_9^- f_{11}^-}{(-E_4+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_4-E_{11}+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_{11}^- f_{12}^- f_9^+ - f_2^- f_5^- f_{11}^- f_{12}^- f_9^+}{(-E_2+E_4)(-E_2-E_{11}+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_4^- f_5^- f_{11}^- f_{12}^- f_9^+ - f_3^- f_4^- f_{11}^- f_{12}^- f_9^+}{(-E_4+E_2)(-E_4-E_{11}+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{12}^+ - f_2^- f_3^- f_6^- f_9^- f_{12}^+ - f_2^- f_5^- f_6^- f_{11}^- f_{12}^- + f_2^- f_3^- f_6^- f_{11}^- f_{12}^+}{(-E_2+E_4)(-E_5-E_{12}+E_2+E_3)(-E_2-E_6+E_8+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{12}^+ - f_3^- f_4^- f_6^- f_{11}^- f_{12}^+ + f_4^- f_5^- f_6^- f_{11}^- f_{12}^- - f_4^- f_5^- f_6^- f_9^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_4-E_6+E_8+E_{12})(-E_4-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_3^+ f_{11}^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_6+E_3+E_{10})(-E_5-E_6-E_9+E_2+E_3+E_{11})(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{12}^- f_3^+ - f_5^- f_6^- f_{11}^- f_{12}^- f_3^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_6+E_3+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_6^- f_8^- f_9^- f_{11}^+ - f_5^- f_6^- f_8^- f_9^- f_{11}^+}{(-E_3-E_8+E_5+E_6)(-E_8+E_{10})(-E_8-E_9+E_2+E_{11})(-E_8-E_9+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_8^- f_9^- f_5^+ f_{11}^+}{(-E_3-E_8+E_5+E_6)(-E_8+E_{10})(-E_8-E_9+E_2+E_{11})(-E_8-E_9+E_4+E_{11})(-E_3-E_8-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_8^- f_9^- f_{12}^- - f_5^- f_8^- f_{11}^- f_{12}^- f_3^+}{(-E_3-E_8+E_5+E_6)(-E_8+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_3-E_8-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_8^- f_9^- f_{12}^- f_6^+ - f_3^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_5^- f_6^- f_8^- f_9^- f_{12}^- + f_5^- f_8^- f_{11}^- f_{12}^- f_6^+}{(-E_3-E_8+E_5+E_6)(-E_8+E_{10})(-E_8-E_{12}+E_2+E_6)(-E_8-E_{12}+E_4+E_6)(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_{11}^+ - f_3^- f_6^- f_9^- f_{10}^- f_{11}^+}{(-E_5-E_6+E_3+E_{10})(-E_{10}+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_9^- f_{10}^- f_5^+ f_{11}^+}{(-E_3-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})} \\
\frac{+f_5^- f_{10}^- f_{11}^- f_{12}^- f_3^+ - f_3^- f_5^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_5-E_{11}-E_{12}+E_3+E_9+E_{10})} \\
\frac{+f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_3^- f_{10}^- f_{11}^- f_{12}^- f_6^+ + f_5^- f_{10}^- f_{11}^- f_{12}^- f_6^+}{(-E_3-E_{10}+E_5+E_6)(-E_{10}+E_8)(-E_{10}-E_{12}+E_2+E_6)(-E_{10}-E_{12}+E_4+E_6)(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_8^- f_9^- f_{12}^- f_{11}^+ - f_5^- f_8^- f_9^- f_{11}^- f_{12}^-}{(-E_8+E_{10})(-E_8-E_9+E_2+E_{11})(-E_8-E_9+E_4+E_{11})(-E_{11}-E_{12}+E_6+E_9)(-E_3-E_8-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_5^- f_9^- f_{10}^- f_{11}^- f_{12}^-}{(-E_{10}+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_{11}-E_{12}+E_6+E_9)(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})} \\
\frac{+f_5^- f_{11}^- f_{12}^- f_3^+ f_9^+}{(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_6+E_9)(-E_5-E_{11}-E_{12}+E_3+E_8+E_9)(-E_5-E_{11}-E_{12}+E_3+E_9+E_{10})}
\end{array}\right)$$

$$
+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|3,6\}\{9,10|V|11,8\}\{11,12|V|9,2\}f_1^- \left(\begin{array}{c}
\frac{+f_2^- f_3^- f_5^- f_6^- f_{11}^- f_7^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_7^+}{(-E_2+E_4)(-E_3-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_{11}+E_5+E_9)(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_7^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_7^+}{(-E_4+E_2)(-E_3-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_{11}+E_5+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_8^- f_9^- - f_2^- f_5^- f_7^- f_8^- f_{11}^- f_6^+}{(-E_2+E_4)(-E_7-E_8+E_3+E_6)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_2-E_7-E_8+E_5+E_6+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{11}^- f_6^+ - f_4^- f_5^- f_6^- f_7^- f_8^- f_9^-}{(-E_4+E_2)(-E_7-E_8+E_3+E_6)(-E_5-E_6+E_7+E_{10})(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_4-E_7-E_8+E_5+E_6+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+ - f_2^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_3-E_6+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_7-E_9-E_{10}+E_3+E_6+E_{11})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_3-E_6+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_3-E_6-E_{11}+E_7+E_9+E_{10})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ - f_2^- f_7^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_7-E_8+E_3+E_6)(-E_7-E_{10}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ - f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_6)(-E_7-E_{10}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_4-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_9^- f_3^+ - f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- + f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- - f_2^- f_3^- f_5^- f_6^- f_8^- f_9^-}{(-E_2+E_4)(-E_7-E_8+E_3+E_6)(-E_5-E_8+E_3+E_{10})(-E_5-E_9+E_3+E_{11})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_9^- f_3^+ + f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- - f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- - f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_7-E_8+E_3+E_6)(-E_5-E_8+E_3+E_{10})(-E_5-E_9+E_3+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- - f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_8^+ - f_2^- f_3^- f_7^- f_9^- f_{10}^- f_8^+ + f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_2+E_4)(-E_7-E_8+E_3+E_6)(-E_3-E_{10}+E_5+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_8^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- - f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_3-E_6+E_7+E_8)(-E_3-E_{10}+E_5+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_4-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_{11}^- f_7^+ f_9^+}{(-E_2+E_4)(-E_3-E_6+E_7+E_8)(-E_3-E_{11}+E_5+E_9)(-E_3-E_6-E_{11}+E_7+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_7^+ f_9^+}{(-E_4+E_2)(-E_3-E_6+E_7+E_8)(-E_3-E_{11}+E_5+E_9)(-E_3-E_6-E_{11}+E_7+E_9+E_{10})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+ - f_2^- f_3^- f_6^- f_8^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_7-E_8+E_3+E_6)(-E_3-E_{11}+E_5+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_9^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_3-E_6+E_7+E_8)(-E_3-E_{11}+E_5+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_2+E_4)(-E_7-E_8+E_3+E_6)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_6)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_{11}^- f_7^+ f_{12}^+ - f_2^- f_3^- f_6^- f_9^- f_7^+ f_{12}^+}{(-E_2+E_4)(-E_3-E_6+E_7+E_8)(-E_2-E_3+E_5+E_{12})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_9^- f_{12}^+ - f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^+ - f_2^- f_3^- f_6^- f_8^- f_9^- f_{12}^+ + f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{12}^+}{(-E_2+E_4)(-E_7-E_8+E_3+E_6)(-E_2-E_3+E_5+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_7^+ f_{12}^+ - f_3^- f_4^- f_6^- f_9^- f_7^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_6+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_{11}-E_{12}+E_4+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_6^- f_8^- f_9^- f_{12}^+ + f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{12}^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_6)(-E_3-E_4+E_5+E_{12})(-E_4-E_8+E_{10}+E_{12})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_6^+ f_{12}^+ - f_2^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+}{(-E_2+E_4)(-E_7-E_8+E_3+E_6)(-E_2-E_7-E_8+E_5+E_6+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_4^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+ - f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_{12}^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_6)(-E_4-E_7-E_8+E_5+E_6+E_{12})(-E_4-E_8+E_{10}+E_{12})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- + f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- - f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_5^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_3-E_{10}+E_5+E_8)(-E_5-E_9+E_3+E_{11})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_5^+ - f_3^- f_4^- f_5^- f_6^- f_{10}^- f_{11}^- - f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- + f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_3-E_{10}+E_5+E_8)(-E_3-E_{11}+E_5+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{10}^+ - f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+ - f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^- + f_2^- f_5^- f_6^- f_8^- f_9^- f_{10}^+}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_5-E_8+E_3+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+ - f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{10}^+ - f_4^- f_5^- f_6^- f_8^- f_9^- f_{10}^+ + f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_3+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_4-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_7^+ f_{11}^+}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_9+E_3+E_{11})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_7^+ f_{11}^+}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_5-E_9+E_3+E_{11})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_5-E_9+E_3+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_5-E_9+E_3+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_7-E_9-E_{10}+E_3+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_7-E_9-E_{10}+E_3+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_7^+ - f_2^- f_5^- f_6^- f_9^- f_{12}^- f_7^+}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_5-E_6-E_{12}+E_2+E_7+E_8)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- + f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_5-E_{12}+E_2+E_3)(-E_{10}-E_{12}+E_2+E_8)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_7^+ - f_4^- f_5^- f_6^- f_9^- f_{12}^- f_7^+}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_5-E_6-E_{12}+E_4+E_7+E_8)(-E_{11}-E_{12}+E_4+E_9)} \\
\frac{+f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- - f_4^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- + f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_5-E_{12}+E_3+E_4)(-E_{10}-E_{12}+E_4+E_8)(-E_{11}-E_{12}+E_4+E_9)} \\
\frac{+f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)(-E_{10}-E_{12}+E_2+E_8)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_{10}-E_{12}+E_4+E_8)(-E_{11}-E_{12}+E_4+E_9)} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_9^- f_{11}^- - f_2^- f_5^- f_6^- f_8^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_5-E_9+E_3+E_{11})(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_9^- f_{11}^- - f_4^- f_5^- f_6^- f_8^- f_9^- f_{11}^+}{(-E_4+E_2)(-E_5-E_9+E_3+E_{11})(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^- - f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_3-E_{11}+E_5+E_9)(-E_7-E_9-E_{10}+E_3+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_9^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_3-E_{11}+E_5+E_9)(-E_3-E_6-E_{11}+E_7+E_9+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- - f_2^- f_5^- f_6^- f_8^- f_9^- f_{12}^- - f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- + f_2^- f_5^- f_7^- f_8^- f_9^- f_{12}^+}{(-E_2+E_4)(-E_5-E_{12}+E_2+E_3)(-E_5-E_6-E_{12}+E_2+E_7+E_8)(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_{12}^+ + f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{12})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})(-E_{10}-E_{12}+E_2+E_8)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_9^- f_{12}^- - f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- + f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_4^- f_5^- f_7^- f_8^- f_9^- f_{12}^+}{(-E_4+E_2)(-E_5-E_{12}+E_3+E_4)(-E_5-E_6-E_{12}+E_4+E_7+E_8)(-E_4-E_8+E_{10}+E_{12})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_{10}-E_{12}+E_4+E_8)(-E_{11}-E_{12}+E_4+E_9)}
\end{array} \right.
$$

$$+\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|3,8\}\{7,8|V|9,2\}\{9,10|V|11,6\}\{11,12|V|7,12\}f_1^- f_{12}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_5-E_6-E_7+E_2+E_3+E_9)(-E_2-E_3+E_5+E_{10})(-E_7+E_{11})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_3-E_9+E_5+E_6+E_7)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_6+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_6+E_{11})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_5^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_2-E_3+E_5+E_{10})(-E_7+E_{11})} \\
\frac{+f_2^- f_3^- f_8^- f_9^- f_5^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_2-E_9+E_8+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_8^+ - f_2^- f_3^- f_6^- f_7^- f_8^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_7-E_8+E_2+E_9)(-E_2-E_6+E_8+E_{10})(-E_7+E_{11})} \\
\frac{+f_2^- f_3^- f_6^- f_8^- f_9^- - f_2^- f_5^- f_6^- f_9^- f_8^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_2-E_6+E_8+E_{10})(-E_2-E_9+E_8+E_{11})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_5^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_5^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_4-E_9+E_8+E_{11})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- - f_4^- f_5^- f_6^- f_7^- f_8^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_4-E_6+E_8+E_{10})(-E_7+E_{11})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_8^+ - f_3^- f_4^- f_6^- f_8^- f_9^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_4-E_9+E_7+E_8)(-E_4-E_6+E_8+E_{10})(-E_4-E_9+E_8+E_{11})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_3+E_5+E_{10})(-E_{11}+E_7)(-E_5-E_6-E_{11}+E_2+E_3+E_9)} \\
\frac{+f_2^- f_3^- f_8^- f_{11}^- f_5^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_3+E_5+E_{10})(-E_{11}+E_7)(-E_8-E_{11}+E_2+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_7)(-E_5-E_6-E_{11}+E_3+E_4+E_9)} \\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_5^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_7)(-E_8-E_{11}+E_4+E_9)} \\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_8^+ - f_2^- f_3^- f_6^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_6+E_8+E_{10})(-E_{11}+E_7)(-E_8-E_{11}+E_2+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- - f_4^- f_5^- f_6^- f_{11}^- f_8^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_4-E_6+E_8+E_{10})(-E_{11}+E_7)(-E_8-E_{11}+E_4+E_9)} \\
\frac{+f_2^- f_3^- f_9^- f_5^+ f_7^+}{(-E_2+E_4)(-E_2-E_3-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_7+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_9^+ - f_2^- f_3^- f_6^- f_9^- f_7^+}{(-E_2+E_4)(-E_5-E_6-E_7+E_2+E_3+E_9)(-E_2-E_9+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_5^+ f_7^+}{(-E_4+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_7+E_{11})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_9^+ - f_3^- f_4^- f_6^- f_9^- f_7^+}{(-E_4+E_2)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_4-E_9+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_5^- f_7^- f_8^- f_{10}^- f_2^+ - f_2^- f_3^- f_7^- f_8^- f_{10}^-}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_5-E_{10}+E_2+E_3)(-E_8-E_{10}+E_2+E_6)(-E_7+E_{11})} \\
\frac{+f_2^- f_3^- f_8^- f_9^- f_{10}^- - f_2^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_2-E_9+E_8+E_{11})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_7^+ - f_2^- f_3^- f_9^- f_{10}^- f_7^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{10}+E_6+E_7)(-E_7+E_{11})} \\
\frac{+f_5^- f_7^- f_8^- f_{10}^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^-}{(-E_4+E_2)(-E_7-E_8+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_8-E_{10}+E_4+E_6)(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^- - f_4^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_4+E_6)(-E_4-E_9+E_8+E_{11})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_7^+ - f_4^- f_5^- f_9^- f_{10}^- f_7^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_7+E_{11})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{10}^+ - f_2^- f_5^- f_6^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_6-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{10}^- - f_2^- f_3^- f_6^- f_9^- f_{10}^+}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_2-E_6+E_8+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_6+E_{11})} \\
\frac{+f_5^- f_8^- f_{10}^- f_{11}^- f_2^+ - f_2^- f_3^- f_8^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_8-E_{10}+E_2+E_6)(-E_{11}+E_7)(-E_8-E_{11}+E_2+E_9)} \\
\frac{+f_2^- f_5^- f_6^- f_{10}^- f_{11}^- - f_2^- f_3^- f_6^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_2-E_6+E_8+E_{10})(-E_{11}+E_7)(-E_6-E_{11}+E_9+E_{10})} \\
\frac{+f_2^- f_3^- f_9^- f_5^+ f_{11}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_{11}+E_7)(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_2-E_9+E_8+E_{11})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{11}^+ - f_2^- f_3^- f_9^- f_{10}^- f_{11}^+}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_{11}+E_7)(-E_2-E_9+E_8+E_{11})(-E_9-E_{10}+E_6+E_{11})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^+ - f_4^- f_5^- f_6^- f_7^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_4-E_6+E_8+E_{10})(-E_6-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^+ - f_4^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_4-E_6+E_8+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_6+E_{11})} \\
\frac{+f_3^- f_4^- f_8^- f_{10}^- f_{11}^- - f_5^- f_8^- f_{10}^- f_{11}^- f_4^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_4+E_6)(-E_{11}+E_7)(-E_8-E_{11}+E_4+E_9)} \\
\frac{+f_4^- f_5^- f_6^- f_{10}^- f_{11}^- - f_3^- f_4^- f_6^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_4-E_6+E_8+E_{10})(-E_{11}+E_7)(-E_6-E_{11}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_9^- f_5^+ f_{11}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_{11}+E_7)(-E_3-E_4-E_9+E_5+E_6+E_{11})(-E_4-E_9+E_8+E_{11})} \\
\frac{+f_4^- f_5^- f_9^- f_{10}^- f_{11}^+ - f_3^- f_4^- f_9^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{11}+E_7)(-E_4-E_9+E_8+E_{11})(-E_9-E_{10}+E_6+E_{11})} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{11}^+ - f_2^- f_5^- f_6^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_{11}+E_7)(-E_2-E_3-E_9+E_5+E_6+E_{11})(-E_2-E_9+E_8+E_{11})(-E_6-E_{11}+E_9+E_{10})} \\
\frac{+f_4^- f_5^- f_6^- f_{11}^- f_9^+ - f_3^- f_4^- f_6^- f_9^- f_{11}^+}{(-E_4+E_2)(-E_{11}+E_7)(-E_5-E_6-E_{11}+E_3+E_4+E_9)(-E_4-E_9+E_8+E_{11})(-E_6-E_{11}+E_9+E_{10})} \\
\frac{+f_5^- f_6^- f_7^- f_3^+ f_9^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_6-E_7+E_2+E_3+E_9)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_6-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_5^- f_6^- f_7^- f_8^- f_9^+ - f_3^- f_6^- f_7^- f_8^- f_9^+}{(-E_5-E_6+E_3+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_6-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_3^- f_7^- f_8^- f_5^+ f_9^+}{(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_5+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_5^- f_6^- f_7^- f_{10}^- f_3^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_6-E_7+E_9+E_{10})(-E_7+E_{11})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_3^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_6+E_{11})} \\
\frac{+f_3^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_3-E_8+E_5+E_6)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_3-E_7-E_8+E_5+E_9+E_{10})(-E_7+E_{11})}
\end{array}\right.$$

$$
+\{1,2|V|1,4\}\{3,4|V|5,2\}\{5,6|V|7,12\}\{7,8|V|9,8\}\{9,10|V|11,6\}\{11,12|V|3,10\}f_1^-f_8^-
\left(\begin{array}{r}
\frac{+f_2^-f_3^-f_6^-f_7^-f_{11}^- - f_3^-f_4^-f_6^-f_7^-f_{11}^- - f_2^-f_3^-f_6^-f_7^-f_{10}^- + f_3^-f_4^-f_6^-f_7^-f_{10}^-}{(-E_2+E_4)(-E_3+E_5)(-E_7+E_9)(-E_6-E_{11}+E_7+E_{10})(-E_3-E_6+E_7+E_{12})}\\
\frac{+f_4^-f_5^-f_6^-f_7^-f_{11}^- - f_2^-f_5^-f_6^-f_7^-f_{11}^- + f_2^-f_5^-f_6^-f_7^-f_{10}^- - f_4^-f_5^-f_6^-f_7^-f_{10}^-}{(-E_4+E_2)(-E_5+E_3)(-E_7+E_9)(-E_6-E_{11}+E_7+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_7^-f_{10}^-f_{11}^+ - f_3^-f_4^-f_7^-f_{10}^-f_{11}^+}{(-E_2+E_4)(-E_3+E_5)(-E_7+E_9)(-E_7-E_{10}+E_6+E_{11})(-E_3-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_7^-f_{10}^-f_{11}^+ - f_4^-f_5^-f_7^-f_{10}^-f_{11}^+}{(-E_2+E_4)(-E_5+E_3)(-E_7+E_9)(-E_7-E_{10}+E_6+E_{11})(-E_5-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_9^-f_{11}^- - f_2^-f_3^-f_6^-f_9^-f_{11}^- + f_2^-f_3^-f_6^-f_9^-f_{10}^- - f_3^-f_4^-f_6^-f_9^-f_{10}^-}{(-E_4+E_2)(-E_3+E_5)(-E_9+E_7)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_6+E_9+E_{12})}\\
\frac{+f_2^-f_5^-f_6^-f_9^-f_{11}^- - f_4^-f_5^-f_6^-f_9^-f_{11}^- + f_4^-f_5^-f_6^-f_9^-f_{10}^- - f_2^-f_5^-f_6^-f_9^-f_{10}^-}{(-E_2+E_4)(-E_5+E_3)(-E_9+E_7)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6+E_9+E_{12})}\\
\frac{+f_2^-f_3^-f_9^-f_{10}^-f_{11}^+ - f_3^-f_4^-f_9^-f_{10}^-f_{11}^+}{(-E_2+E_4)(-E_3+E_5)(-E_9+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_9^-f_{10}^-f_{11}^+ - f_4^-f_5^-f_9^-f_{10}^-f_{11}^+}{(-E_2+E_4)(-E_5+E_3)(-E_9+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_5-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{10}^-f_{12}^- - f_3^-f_4^-f_7^-f_{11}^-f_{12}^- + f_2^-f_3^-f_7^-f_{11}^-f_{12}^- - f_2^-f_3^-f_7^-f_{10}^-f_{12}^-}{(-E_4+E_2)(-E_3+E_5)(-E_7+E_9)(-E_7-E_{12}+E_3+E_6)(-E_3-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_7^-f_{10}^-f_{12}^- - f_2^-f_5^-f_7^-f_{11}^-f_{12}^- - f_4^-f_5^-f_7^-f_{10}^-f_{12}^- + f_4^-f_5^-f_7^-f_{11}^-f_{12}^-}{(-E_2+E_4)(-E_5+E_3)(-E_7+E_9)(-E_7-E_{12}+E_5+E_6)(-E_5-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_9^-f_{11}^-f_{12}^- + f_2^-f_3^-f_9^-f_{10}^-f_{12}^- - f_3^-f_4^-f_9^-f_{10}^-f_{12}^- - f_2^-f_3^-f_9^-f_{11}^-f_{12}^-}{(-E_4+E_2)(-E_3+E_5)(-E_9+E_7)(-E_9-E_{12}+E_3+E_6)(-E_{11}-E_{12}+E_3+E_{10})}\\
\frac{+f_4^-f_5^-f_9^-f_{11}^-f_{12}^- - f_4^-f_5^-f_9^-f_{10}^-f_{12}^- + f_2^-f_5^-f_9^-f_{10}^-f_{12}^- - f_2^-f_5^-f_9^-f_{11}^-f_{12}^-}{(-E_4+E_2)(-E_5+E_3)(-E_9+E_7)(-E_9-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_5+E_{10})}\\
\frac{+f_2^-f_3^-f_6^-f_{11}^-f_{10}^+ - f_3^-f_4^-f_6^-f_{11}^-f_{10}^+}{(-E_2+E_4)(-E_3+E_5)(-E_6-E_{11}+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_6^-f_{11}^-f_{10}^+ - f_4^-f_5^-f_6^-f_{11}^-f_{10}^+}{(-E_2+E_4)(-E_5+E_3)(-E_6-E_{11}+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_5-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_{11}^-f_{12}^+ - f_2^-f_3^-f_6^-f_{11}^-f_{12}^+ + f_2^-f_3^-f_6^-f_{10}^-f_{12}^+ - f_3^-f_4^-f_6^-f_{10}^-f_{12}^+}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_6+E_7+E_{12})(-E_3-E_6+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_{10})}\\
\frac{+f_2^-f_5^-f_6^-f_{11}^-f_{12}^+ - f_4^-f_5^-f_6^-f_{11}^-f_{12}^+ - f_2^-f_5^-f_6^-f_{10}^-f_{12}^+ + f_4^-f_5^-f_6^-f_{10}^-f_{12}^+}{(-E_2+E_4)(-E_5+E_3)(-E_5-E_6+E_7+E_{12})(-E_5-E_6+E_9+E_{12})(-E_{11}-E_{12}+E_5+E_{10})}\\
\frac{+f_2^-f_7^-f_{11}^-f_{12}^-f_6^+ - f_4^-f_7^-f_{11}^-f_{12}^-f_6^+ + f_4^-f_7^-f_{10}^-f_{12}^-f_6^+ - f_2^-f_7^-f_{10}^-f_{12}^-f_6^+}{(-E_2+E_4)(-E_7+E_9)(-E_6-E_{11}+E_7+E_{10})(-E_7-E_{12}+E_3+E_6)(-E_7-E_{12}+E_5+E_6)}\\
\frac{+f_4^-f_7^-f_{11}^-f_{12}^-f_{10}^+ - f_2^-f_7^-f_{11}^-f_{12}^-f_{10}^+}{(-E_4+E_2)(-E_7+E_9)(-E_7-E_{10}+E_6+E_{11})(-E_{11}-E_{12}+E_3+E_{10})(-E_{11}-E_{12}+E_5+E_{10})}\\
\frac{+f_2^-f_9^-f_{10}^-f_{12}^-f_6^+ - f_4^-f_9^-f_{10}^-f_{12}^-f_6^+ - f_2^-f_9^-f_{11}^-f_{12}^-f_6^+ + f_4^-f_9^-f_{11}^-f_{12}^-f_6^+}{(-E_2+E_4)(-E_9+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{12}+E_3+E_6)(-E_9-E_{12}+E_5+E_6)}\\
\frac{+f_4^-f_9^-f_{11}^-f_{12}^-f_{10}^+ - f_2^-f_9^-f_{11}^-f_{12}^-f_{10}^+}{(-E_4+E_2)(-E_9+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_{11}-E_{12}+E_3+E_{10})(-E_{11}-E_{12}+E_5+E_{10})}\\
\frac{+f_4^-f_6^-f_{11}^-f_{12}^-f_{10}^+ - f_2^-f_6^-f_{11}^-f_{12}^-f_{10}^+}{(-E_4+E_2)(-E_6-E_{11}+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_{10})(-E_{11}-E_{12}+E_5+E_{10})}
\end{array}\right)
$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_8^- f_9^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_8+E_{11})(-E_5-E_6-E_8+E_2+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_7^- f_8^- f_9^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^+ - f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_8+E_{11})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_7^- f_9^- f_{11}^+ - f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_8+E_{11})(-E_2-E_3-E_7+E_5+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_6-E_8+E_2+E_9+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^- - f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_{10}+E_2+E_3)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_6-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- - f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_{10}+E_2+E_3)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_8^- f_{12}^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_3+E_5+E_{10})(-E_5-E_6-E_8+E_2+E_9+E_{12})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^+ - f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_{10}+E_2+E_3)(-E_5-E_6-E_8+E_2+E_9+E_{12})(-E_5-E_6-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_7^- f_9^- f_{12}^- - f_2^- f_3^- f_5^- f_7^- f_8^- f_{12}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_3+E_5+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_2-E_3-E_7+E_5+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- - f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_{10}+E_2+E_3)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_8^- f_9^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_{10})(-E_3-E_6-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ - f_2^- f_3^- f_7^- f_9^- f_6^+ f_{11}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_{10})(-E_7-E_8-E_{11}+E_3+E_6+E_9)(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_7^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_{10}+E_3+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+ - f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_{10}+E_3+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_8^- f_6^+ f_{12}^+ - f_2^- f_3^- f_7^- f_9^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_2^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_{10}+E_3+E_6)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_8-E_{11}+E_2+E_3+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_6-E_8+E_2+E_9+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_8-E_{11}+E_2+E_3+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8-E_{11}+E_3+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- - f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6-E_8+E_2+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_6)(-E_2-E_{11}-E_{12}+E_5+E_6+E_{10})}$$

$$\frac{+f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_6)(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_7^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_5-E_{11}-E_{12}+E_2+E_3+E_7)(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_9^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_5-E_6-E_8+E_4+E_9+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_9^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^+ - f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_8+E_{11})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- - f_3^- f_4^- f_5^- f_7^- f_9^- f_{11}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_5-E_8-E_{11}+E_3+E_4+E_9)(-E_3-E_4-E_7+E_5+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_5^- f_6^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_6-E_8+E_4+E_9+E_{12})}$$

$$\frac{+f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+ - f_4^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_6-E_{10}+E_4+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^- - f_3^- f_4^- f_5^- f_6^- f_8^- f_{12}^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_{10})(-E_4-E_9-E_{12}+E_5+E_6+E_8)(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^+ - f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_{10}+E_3+E_4)(-E_5-E_6-E_8+E_4+E_9+E_{12})(-E_5-E_6-E_{10}+E_4+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_9^- f_{12}^- - f_3^- f_4^- f_5^- f_7^- f_8^- f_{12}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_3-E_4-E_7+E_5+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- - f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_{10})(-E_3-E_6-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_9^- f_6^+ f_{11}^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_{10})(-E_3-E_6-E_9+E_7+E_8+E_{11})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_{10}+E_3+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ - f_4^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_{10}+E_3+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_9^- f_{12}^- f_6^+ - f_3^- f_4^- f_7^- f_8^- f_6^+ f_{12}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_4^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_{10}+E_3+E_6)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_5^- f_6^- f_8^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_8-E_{11}+E_3+E_4+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_6-E_8+E_4+E_9+E_{12})}$$

$$\frac{+f_4^- f_5^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_8-E_{11}+E_3+E_4+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8-E_{11}+E_3+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_4-E_9-E_{12}+E_5+E_6+E_8)(-E_{11}-E_{12}+E_3+E_6)(-E_4-E_{11}-E_{12}+E_5+E_6+E_{10})}$$

$$\frac{+f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_3+E_6)(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_7^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_5-E_{11}-E_{12}+E_3+E_4+E_7)(-E_{11}-E_{12}+E_7+E_{10})}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,2\}\{7,8|V|9,6\}\{9,10|V|3,10\}\{11,12|V|11,8\}f_1^- f_{10}^- f_{11}^- \begin{pmatrix}
\frac{+f_2^- f_3^- f_5^- f_6^- - f_2^- f_3^- f_5^- f_7^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_3+E_5+E_8)(-E_3+E_9)(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_2^+ - f_2^- f_5^- f_7^- f_8^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_2+E_9)(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_3-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_6+E_9)(-E_8+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- - f_2^- f_5^- f_7^- f_9^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_9+E_3)(-E_2-E_9+E_5+E_8)(-E_2-E_9+E_5+E_{12})} \\
\frac{+f_2^- f_7^- f_9^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_9+E_3)(-E_6-E_9+E_7+E_8)(-E_6-E_9+E_7+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_{12}^- - f_5^- f_6^- f_{12}^- f_2^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_{12}+E_2+E_3)(-E_{12}+E_8)(-E_5-E_{12}+E_2+E_9)} \\
\frac{+f_2^- f_7^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_5^- f_6^- - f_3^- f_4^- f_5^- f_7^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_3+E_9)(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- - f_5^- f_6^- f_8^- f_4^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_8+E_3+E_4)(-E_5-E_8+E_4+E_9)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_3-E_6+E_7+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_6+E_9)(-E_8+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_9^- - f_4^- f_5^- f_7^- f_9^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_9+E_3)(-E_4-E_9+E_5+E_8)(-E_4-E_9+E_5+E_{12})} \\
\frac{+f_4^- f_7^- f_9^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_9+E_3)(-E_6-E_9+E_7+E_8)(-E_6-E_9+E_7+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_{12}^- - f_5^- f_6^- f_{12}^- f_4^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_5-E_{12}+E_4+E_9)} \\
\frac{+f_4^- f_7^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_6+E_9)} \\
\frac{+f_2^- f_3^- f_7^- f_8^+ - f_2^- f_3^- f_6^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_3+E_6)(-E_3+E_9)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^+ - f_3^- f_4^- f_7^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_8+E_{12})} \\
\frac{+f_2^- f_6^- f_9^- f_8^+ - f_2^- f_7^- f_9^- f_8^+}{(-E_2+E_4)(-E_9+E_3)(-E_2-E_9+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_4^- f_6^- f_9^- f_8^+ - f_4^- f_7^- f_9^- f_8^+}{(-E_4+E_2)(-E_9+E_3)(-E_4-E_9+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_{12}^+ - f_2^- f_3^- f_7^- f_{12}^+}{(-E_2+E_4)(-E_3+E_9)(-E_2-E_3+E_5+E_{12})(-E_3-E_6+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_3^- f_4^- f_6^- f_{12}^+ - f_3^- f_4^- f_7^- f_{12}^+}{(-E_4+E_2)(-E_3+E_9)(-E_3-E_4+E_5+E_{12})(-E_3-E_6+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_2^- f_7^- f_9^- f_{12}^+ - f_2^- f_6^- f_9^- f_{12}^+}{(-E_2+E_4)(-E_9+E_3)(-E_{12}+E_8)(-E_2-E_9+E_5+E_{12})(-E_7-E_{12}+E_6+E_9)} \\
\frac{+f_4^- f_7^- f_9^- f_{12}^+ - f_4^- f_6^- f_9^- f_{12}^+}{(-E_4+E_2)(-E_9+E_3)(-E_{12}+E_8)(-E_4-E_9+E_5+E_{12})(-E_7-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_5^- f_6^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_3-E_6+E_7+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_8^-}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_6+E_9)(-E_8+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_9+E_3)(-E_6-E_9+E_7+E_8)(-E_6-E_9+E_7+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_{12}^-}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_5^- f_6^- f_8^- - f_5^- f_7^- f_8^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_3-E_6+E_7+E_8)(-E_3+E_9)(-E_8+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_9^- - f_5^- f_7^- f_8^- f_9^+}{(-E_9+E_3)(-E_5-E_8+E_2+E_9)(-E_5-E_8+E_4+E_9)(-E_6-E_9+E_7+E_8)(-E_8+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_{12}^- - f_5^- f_7^- f_{12}^- f_3^+}{(-E_3+E_9)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_3-E_6+E_7+E_{12})(-E_{12}+E_8)} \\
\frac{+f_5^- f_7^- f_{12}^- f_9^+ - f_5^- f_6^- f_9^- f_{12}^-}{(-E_9+E_3)(-E_{12}+E_8)(-E_5-E_{12}+E_2+E_9)(-E_5-E_{12}+E_4+E_9)(-E_7-E_{12}+E_6+E_9)}
\end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,6\}\{7,8|V|3,10\}\{9,10|V|11,2\}\{11,12|V|9,8\}f_1^- f_6^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_8^- f_9^- - f_2^- f_3^- f_5^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_5-E_8-E_9+E_2+E_3+E_{11})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- - f_3^- f_4^- f_5^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_5-E_8-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_9^- f_{10}^- - f_2^- f_3^- f_5^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_5+E_7)(-E_3-E_{10}+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_9^- f_{10}^+ - f_2^- f_5^- f_8^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- - f_3^- f_4^- f_5^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_5+E_7)(-E_3-E_{10}+E_5+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_8^- f_9^- f_{10}^+ - f_4^- f_5^- f_8^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_4-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- - f_2^- f_3^- f_7^- f_8^- f_9^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_3+E_{10})(-E_2-E_3-E_{11}+E_7+E_8+E_9)(-E_2-E_3+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- - f_3^- f_4^- f_7^- f_8^- f_9^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8+E_3+E_{10})(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_{11}^- - f_2^- f_3^- f_7^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_7+E_5)(-E_3-E_{10}+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_7+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_{10}^+ - f_2^- f_7^- f_8^- f_9^- f_{10}^+}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8+E_3+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- - f_3^- f_4^- f_7^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_7+E_5)(-E_3-E_{10}+E_7+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_9^- f_{10}^+ - f_4^- f_7^- f_8^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8+E_3+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_4-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_5+E_7)(-E_2-E_3-E_{11}+E_5+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_8-E_9+E_2+E_3+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_5+E_7)(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_8^- f_9^- f_{11}^+}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_8-E_9+E_3+E_4+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_7+E_5)(-E_2-E_3-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_7+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_8-E_9+E_2+E_3+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_7+E_5)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_7+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_9^- f_{10}^- f_{12}^- f_2^+ - f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_{12}+E_2+E_3)(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_2^- f_5^- f_{11}^- f_{12}^- f_9^+}{(-E_2+E_4)(-E_5+E_7)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ - f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_7+E_5)(-E_9-E_{10}+E_2+E_{11})(-E_7-E_{12}+E_2+E_3)(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_2^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_2+E_4)(-E_7+E_5)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_2+E_3)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_5+E_7)(-E_9-E_{10}+E_4+E_{11})(-E_5-E_{12}+E_3+E_4)(-E_{10}-E_{12}+E_4+E_8)} \\
\frac{+f_4^- f_5^- f_{11}^- f_{12}^- f_9^+}{(-E_4+E_2)(-E_5+E_7)(-E_4-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_7^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_4+E_2)(-E_7+E_5)(-E_4-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_3+E_4)(-E_{10}-E_{12}+E_4+E_8)} \\
\frac{+f_4^- f_7^- f_{11}^- f_{12}^- f_9^+}{(-E_4+E_2)(-E_7+E_5)(-E_4-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_5^- f_8^- f_9^- f_{12}^- - f_2^- f_5^- f_8^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5+E_7)(-E_5-E_{12}+E_2+E_3)(-E_2-E_8+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_8^- f_9^- f_{12}^- - f_4^- f_5^- f_8^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_5+E_7)(-E_5-E_{12}+E_3+E_4)(-E_4-E_8+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_7^- f_8^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_7+E_5)(-E_7-E_{12}+E_2+E_3)(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_4^- f_7^- f_8^- f_{11}^- f_{12}^- - f_4^- f_7^- f_8^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_7+E_5)(-E_7-E_{12}+E_3+E_4)(-E_4-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_3^- f_{10}^- f_{11}^- f_8^+ - f_2^- f_3^- f_9^- f_{10}^- f_8^+}{(-E_2+E_4)(-E_3-E_{10}+E_5+E_8)(-E_3-E_{10}+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_8^+ - f_3^- f_4^- f_9^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_3-E_{10}+E_5+E_8)(-E_3-E_{10}+E_7+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_8+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_{11}^- f_8^+ f_9^+}{(-E_2+E_4)(-E_2-E_3-E_{11}+E_5+E_8+E_9)(-E_2-E_3-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_{11}^- f_8^+ f_9^+}{(-E_4+E_2)(-E_3-E_4-E_{11}+E_5+E_8+E_9)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^+}{(-E_2+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_3+E_5+E_{12})(-E_2-E_3+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_2^- f_3^- f_{11}^- f_9^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})(-E_2-E_3+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^+}{(-E_4+E_2)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{10}-E_{12}+E_4+E_8)} \\
\frac{+f_3^- f_4^- f_{11}^- f_9^+ f_{12}^+}{(-E_4+E_2)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_{11}-E_{12}+E_8+E_9)} \\
\frac{+f_2^- f_3^- f_8^- f_9^- f_{12}^+ - f_2^- f_3^- f_8^- f_{11}^- f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{12})(-E_2-E_3+E_7+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{12}^+ - f_3^- f_4^- f_8^- f_{11}^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4+E_7+E_{12})(-E_4-E_8+E_{10}+E_{12})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_8^- f_9^- f_3^+ f_{11}^+}{(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_5-E_8-E_9+E_2+E_3+E_{11})(-E_5-E_8-E_9+E_3+E_4+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_{11}^+}{(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_5+E_7)(-E_3-E_{10}+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})} \\
\frac{+f_5^- f_8^- f_9^- f_{12}^- f_3^+ - f_5^- f_8^- f_{11}^- f_{12}^- f_3^+}{(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_8-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_9^- f_{10}^- f_{12}^- - f_5^- f_{10}^- f_{11}^- f_{12}^- f_3^+}{(-E_5+E_7)(-E_3-E_{10}+E_5+E_8)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_{12}^- - f_5^- f_{10}^- f_{11}^- f_{12}^- f_8^+}{(-E_5+E_7)(-E_5-E_8+E_3+E_{10})(-E_{10}-E_{12}+E_2+E_8)(-E_{10}-E_{12}+E_4+E_8)(-E_8-E_9+E_{11}+E_{12})}
\end{array}\right.$$

$$+\{1,2|V|1,4\}\{3,4|V|5,2\}\{5,6|V|7,12\}\{7,8|V|9,6\}\{9,10|V|11,10\}\{11,12|V|3,8\}f_1^- f_{10}^- \begin{pmatrix} \frac{+f_2^- f_3^- f_6^- f_7^- f_8^- - f_3^- f_4^- f_6^- f_7^- f_8^-}{(-E_2+E_4)(-E_3+E_5)(-E_7-E_8+E_6+E_9)(-E_7-E_8+E_6+E_{11})(-E_3-E_6+E_7+E_{12})} \\ \frac{+f_4^- f_5^- f_6^- f_7^- f_8^- - f_2^- f_5^- f_6^- f_7^- f_8^-}{(-E_4+E_2)(-E_5+E_3)(-E_7-E_8+E_6+E_9)(-E_7-E_8+E_6+E_{11})(-E_5-E_6+E_7+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_9^- f_7^+ - f_2^- f_3^- f_6^- f_9^- f_7^+}{(-E_4+E_2)(-E_3+E_5)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_3-E_6+E_7+E_{12})} \\ \frac{+f_4^- f_5^- f_6^- f_9^- f_7^+ - f_2^- f_5^- f_6^- f_9^- f_7^+}{(-E_4+E_2)(-E_5+E_3)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_5-E_6+E_7+E_{12})} \\ \frac{+f_3^- f_4^- f_7^- f_8^- f_9^+ - f_3^- f_4^- f_6^- f_8^- f_9^- - f_2^- f_3^- f_7^- f_8^- f_9^+ + f_2^- f_3^- f_6^- f_8^- f_9^-}{(-E_4+E_2)(-E_3+E_5)(-E_7-E_8+E_6+E_9)(-E_9+E_{11})(-E_3-E_8+E_9+E_{12})} \\ \frac{+f_2^- f_5^- f_6^- f_8^- f_9^- + f_4^- f_5^- f_7^- f_8^- f_9^+ - f_4^- f_5^- f_6^- f_8^- f_9^- - f_2^- f_5^- f_7^- f_8^- f_9^+}{(-E_2+E_4)(-E_5+E_3)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_5-E_8+E_9+E_{12})} \\ \frac{+f_2^- f_3^- f_6^- f_{11}^- f_7^+ - f_3^- f_4^- f_6^- f_{11}^- f_7^+}{(-E_2+E_4)(-E_3+E_5)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_6+E_7+E_{12})} \\ \frac{+f_4^- f_5^- f_6^- f_{11}^- f_7^+ - f_2^- f_5^- f_6^- f_{11}^- f_7^+}{(-E_4+E_2)(-E_5+E_3)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_5-E_6+E_7+E_{12})} \\ \frac{+f_2^- f_3^- f_6^- f_8^- f_{11}^- - f_2^- f_3^- f_7^- f_8^- f_{11}^+ - f_3^- f_4^- f_6^- f_8^- f_{11}^- + f_3^- f_4^- f_7^- f_8^- f_{11}^+}{(-E_2+E_4)(-E_3+E_5)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_3-E_8+E_{11}+E_{12})} \\ \frac{+f_4^- f_5^- f_7^- f_8^- f_{11}^+ - f_2^- f_5^- f_7^- f_8^- f_{11}^+ - f_4^- f_5^- f_6^- f_8^- f_{11}^- + f_2^- f_5^- f_6^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_5+E_3)(-E_7-E_8+E_6+E_{11})(-E_{11}+E_9)(-E_5-E_8+E_{11}+E_{12})} \\ \frac{+f_2^- f_3^- f_6^- f_9^- f_{12}^- - f_3^- f_4^- f_6^- f_9^- f_{12}^- - f_2^- f_3^- f_7^- f_9^- f_{12}^- + f_3^- f_4^- f_7^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_3+E_5)(-E_9+E_{11})(-E_3-E_6+E_7+E_{12})(-E_9-E_{12}+E_3+E_8)} \\ \frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- - f_2^- f_3^- f_7^- f_{11}^- f_{12}^- - f_3^- f_4^- f_6^- f_{11}^- f_{12}^- + f_2^- f_3^- f_6^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_3+E_5)(-E_{11}+E_9)(-E_7-E_{12}+E_3+E_6)(-E_{11}-E_{12}+E_3+E_8)} \\ \frac{+f_4^- f_5^- f_6^- f_9^- f_{12}^- - f_2^- f_5^- f_6^- f_9^- f_{12}^- + f_2^- f_5^- f_7^- f_9^- f_{12}^- - f_4^- f_5^- f_7^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_5+E_3)(-E_9+E_{11})(-E_5-E_6+E_7+E_{12})(-E_9-E_{12}+E_5+E_8)} \\ \frac{+f_2^- f_5^- f_6^- f_{11}^- f_{12}^- - f_2^- f_5^- f_7^- f_{11}^- f_{12}^- + f_4^- f_5^- f_7^- f_{11}^- f_{12}^- - f_4^- f_5^- f_6^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5+E_3)(-E_{11}+E_9)(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_5+E_8)} \\ \frac{+f_2^- f_3^- f_6^- f_8^- f_{12}^+ - f_3^- f_4^- f_6^- f_8^- f_{12}^+ - f_2^- f_3^- f_7^- f_8^- f_{12}^- + f_3^- f_4^- f_7^- f_8^- f_{12}^-}{(-E_2+E_4)(-E_3+E_5)(-E_3-E_6+E_7+E_{12})(-E_3-E_8+E_9+E_{12})(-E_3-E_8+E_{11}+E_{12})} \\ \frac{+f_4^- f_5^- f_7^- f_8^- f_{12}^- - f_2^- f_5^- f_7^- f_8^- f_{12}^- - f_4^- f_5^- f_6^- f_8^- f_{12}^+ + f_2^- f_5^- f_6^- f_8^- f_{12}^+}{(-E_4+E_2)(-E_5+E_3)(-E_7-E_{12}+E_5+E_6)(-E_5-E_8+E_9+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\ \frac{+f_4^- f_7^- f_8^- f_{12}^- f_6^+ - f_2^- f_7^- f_8^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_7-E_8+E_6+E_{11})(-E_7-E_{12}+E_3+E_6)(-E_7-E_{12}+E_5+E_6)} \\ \frac{+f_2^- f_7^- f_9^- f_{12}^- f_6^+ - f_4^- f_7^- f_9^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_9+E_{11})(-E_7-E_{12}+E_3+E_6)(-E_7-E_{12}+E_5+E_6)} \\ \frac{+f_2^- f_7^- f_9^- f_{12}^- f_8^+ - f_2^- f_6^- f_9^- f_{12}^- f_8^+ - f_4^- f_7^- f_9^- f_{12}^- f_8^+ + f_4^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_9+E_{11})(-E_9-E_{12}+E_3+E_8)(-E_9-E_{12}+E_5+E_8)} \\ \frac{+f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_7^- f_{11}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_6-E_{11}+E_7+E_8)(-E_{11}+E_9)(-E_7-E_{12}+E_3+E_6)(-E_7-E_{12}+E_5+E_6)} \\ \frac{+f_2^- f_7^- f_{11}^- f_{12}^- f_8^+ - f_4^- f_7^- f_{11}^- f_{12}^- f_8^+ - f_2^- f_6^- f_{11}^- f_{12}^- f_8^+ + f_4^- f_6^- f_{11}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_{11})(-E_{11}+E_9)(-E_{11}-E_{12}+E_3+E_8)(-E_{11}-E_{12}+E_5+E_8)} \end{pmatrix}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|3,8\}\{7,8|V|9,12\}\{9,10|V|11,2\}\{11,12|V|7,6\}f_1^-\left(\begin{array}{c}
\frac{+f_2^-f_3^-f_6^-f_9^-f_{12}^-f_5^+-f_2^-f_3^-f_5^-f_6^-f_7^-f_9^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_3+E_5+E_{10})(-E_3-E_9+E_5+E_{11})(-E_3-E_9-E_{12}+E_5+E_6+E_7)}\\
\frac{+f_2^-f_3^-f_8^-f_9^-f_{12}^-f_5^+-f_2^-f_3^-f_7^-f_8^-f_9^-f_5^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_3+E_5+E_{10})(-E_3-E_9+E_5+E_{11})(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_2^-f_3^-f_5^-f_6^-f_{11}^-f_{12}^--f_2^-f_3^-f_5^-f_6^-f_7^-f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_3+E_5+E_{10})(-E_5-E_{11}+E_3+E_9)(-E_{11}-E_{12}+E_6+E_7)}\\
\frac{+f_2^-f_3^-f_7^-f_8^-f_{11}^-f_5^+-f_2^-f_3^-f_5^-f_8^-f_{11}^-f_{12}^-}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_3+E_5+E_{10})(-E_5-E_{11}+E_3+E_9)(-E_3-E_7-E_8+E_5+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_6^-f_7^-f_{12}^+}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_3+E_5+E_{10})(-E_5-E_6-E_7+E_3+E_9+E_{12})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_7^-f_8^-f_5^+f_{12}^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_3+E_5+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_7-E_8+E_5+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_7^-f_9^--f_3^-f_4^-f_6^-f_9^-f_{12}^-f_5^+}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_9+E_5+E_{11})(-E_5-E_6-E_7+E_3+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_9^-f_5^+-f_3^-f_4^-f_8^-f_9^-f_{12}^-f_5^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_3-E_9+E_5+E_{11})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_7^-f_{11}^--f_3^-f_4^-f_5^-f_6^-f_{11}^-f_{12}^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_3-E_4+E_5+E_{10})(-E_5-E_{11}+E_3+E_9)(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{11}^-f_5^+-f_3^-f_4^-f_5^-f_8^-f_{11}^-f_{12}^-}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_5-E_{11}+E_3+E_9)(-E_3-E_7-E_8+E_5+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_6^-f_7^-f_{12}^+}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_3-E_4+E_5+E_{10})(-E_5-E_6-E_7+E_3+E_9+E_{12})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_5^+f_{12}^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_3-E_4+E_5+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_7-E_8+E_5+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_6^-f_7^-f_8^-f_9^--f_2^-f_5^-f_6^-f_7^-f_9^-f_8^+-f_2^-f_3^-f_6^-f_9^-f_{12}^-f_8^++f_2^-f_5^-f_6^-f_9^-f_{12}^-f_8^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_6-E_9+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_2^-f_5^-f_6^-f_{11}^-f_{12}^-f_8^++f_2^-f_3^-f_6^-f_7^-f_8^-f_{11}^--f_2^-f_5^-f_6^-f_7^-f_{11}^-f_8^+-f_2^-f_3^-f_8^-f_{11}^-f_{12}^-f_6^+}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_6+E_8+E_{10})(-E_8-E_{11}+E_6+E_9)(-E_{11}-E_{12}+E_6+E_7)}\\
\frac{+f_2^-f_3^-f_6^-f_7^-f_8^-f_{12}^+-f_2^-f_5^-f_6^-f_7^-f_8^+f_{12}^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_6+E_8+E_{10})(-E_7-E_8+E_9+E_{12})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_8^-f_9^--f_4^-f_5^-f_6^-f_7^-f_9^-f_8^+-f_3^-f_4^-f_6^-f_9^-f_{12}^-f_8^++f_4^-f_5^-f_6^-f_9^-f_{12}^-f_8^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_4-E_6+E_8+E_{10})(-E_6-E_9+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_3^-f_4^-f_8^-f_{11}^-f_{12}^-f_6^+-f_3^-f_4^-f_6^-f_7^-f_8^-f_{11}^--f_4^-f_5^-f_6^-f_{11}^-f_{12}^-f_8^++f_4^-f_5^-f_6^-f_7^-f_{11}^-f_8^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_4-E_6+E_8+E_{10})(-E_8-E_{11}+E_6+E_9)(-E_{11}-E_{12}+E_6+E_7)}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_8^-f_{12}^+-f_4^-f_5^-f_6^-f_7^-f_8^+f_{12}^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_4-E_6+E_8+E_{10})(-E_7-E_8+E_9+E_{12})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_8^-f_9^-f_{10}^-f_{12}^-+f_2^-f_3^-f_7^-f_8^-f_9^-f_{10}^--f_2^-f_5^-f_7^-f_8^-f_9^-f_{10}^--f_2^-f_3^-f_8^-f_9^-f_{10}^-f_{12}^-}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_8-E_{10}+E_2+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_2^-f_3^-f_6^-f_9^-f_{10}^-f_{12}^--f_2^-f_3^-f_6^-f_7^-f_9^-f_{10}^++f_2^-f_5^-f_6^-f_7^-f_9^-f_{10}^--f_2^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}-E_{12}+E_2+E_6+E_7)}\\
\frac{+f_2^-f_5^-f_6^-f_7^-f_{10}^-f_{11}^--f_2^-f_3^-f_6^-f_7^-f_{11}^-f_{10}^+-f_2^-f_5^-f_6^-f_{10}^-f_{11}^-f_{12}^-+f_2^-f_3^-f_6^-f_{11}^-f_{12}^-f_{10}^+}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_2-E_6+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_2^-f_5^-f_7^-f_8^-f_{10}^-f_{11}^--f_2^-f_3^-f_7^-f_8^-f_{10}^-f_{11}^-+f_2^-f_3^-f_8^-f_{11}^-f_{12}^-f_{10}^+-f_2^-f_5^-f_8^-f_{10}^-f_{11}^-f_{12}^-}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_8-E_{10}+E_2+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_7^-f_8^-f_{10}^-f_{12}^+-f_2^-f_5^-f_7^-f_8^-f_{10}^-f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_8-E_{10}+E_2+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_6^-f_7^-f_{10}^+f_{12}^+-f_2^-f_5^-f_6^-f_7^-f_{10}^-f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_2-E_6+E_8+E_{10})(-E_2-E_6-E_7+E_9+E_{10}+E_{12})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_9^-f_{12}^-f_5^+f_7^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_3-E_9+E_5+E_{11})(-E_3-E_9-E_{12}+E_5+E_6+E_7)(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_2^-f_3^-f_5^-f_{11}^-f_{12}^-f_7^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_5-E_{11}+E_3+E_9)(-E_{11}-E_{12}+E_6+E_7)(-E_5-E_{11}-E_{12}+E_3+E_7+E_8)}\\
\frac{+f_2^-f_3^-f_9^-f_{10}^-f_{12}^-f_7^+-f_2^-f_5^-f_9^-f_{10}^-f_{12}^-f_7^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_2+E_6+E_7)}\\
\frac{+f_2^-f_5^-f_{10}^-f_{11}^-f_{12}^-f_7^+-f_2^-f_3^-f_{11}^-f_{12}^-f_7^+f_{10}^+}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_6+E_7)(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})}\\
\frac{+f_3^-f_4^-f_8^-f_9^-f_{10}^-f_{12}^--f_4^-f_5^-f_8^-f_9^-f_{10}^-f_{12}^-+f_4^-f_5^-f_7^-f_8^-f_9^-f_{10}^--f_3^-f_4^-f_7^-f_8^-f_9^-f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_4+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_9^-f_{10}^+-f_4^-f_5^-f_6^-f_7^-f_9^-f_{10}^--f_3^-f_4^-f_6^-f_9^-f_{10}^-f_{12}^-+f_4^-f_5^-f_6^-f_9^-f_{10}^-f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_4-E_6+E_8+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_4-E_6-E_7+E_9+E_{10}+E_{12})}\\
\frac{+f_4^-f_5^-f_6^-f_7^-f_{10}^-f_{11}^--f_3^-f_4^-f_6^-f_7^-f_{11}^-f_{10}^++f_3^-f_4^-f_6^-f_{11}^-f_{12}^-f_{10}^+-f_4^-f_5^-f_6^-f_{10}^-f_{11}^-f_{12}^-}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_4-E_6+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{11}^--f_4^-f_5^-f_7^-f_8^-f_{10}^-f_{11}^-+f_4^-f_5^-f_8^-f_{10}^-f_{11}^-f_{12}^--f_3^-f_4^-f_8^-f_{11}^-f_{12}^-f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_4+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_7-E_8-E_{10}+E_4+E_{11}+E_{12})}\\
\frac{+f_4^-f_5^-f_7^-f_8^-f_{10}^-f_{12}^+-f_3^-f_4^-f_7^-f_8^-f_{10}^-f_{12}^+}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_8-E_{10}+E_4+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_4+E_{11}+E_{12})}\\
\frac{+f_4^-f_5^-f_6^-f_7^-f_{10}^-f_{12}^+-f_3^-f_4^-f_6^-f_7^-f_{10}^+f_{12}^+}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_4-E_6+E_8+E_{10})(-E_4-E_6-E_7+E_9+E_{10}+E_{12})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_9^-f_{12}^-f_5^+f_7^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_3-E_9+E_5+E_{11})(-E_3-E_9-E_{12}+E_5+E_6+E_7)(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_3^-f_4^-f_5^-f_{11}^-f_{12}^-f_7^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_5-E_{11}+E_3+E_9)(-E_{11}-E_{12}+E_6+E_7)(-E_5-E_{11}-E_{12}+E_3+E_7+E_8)}\\
\frac{+f_3^-f_4^-f_9^-f_{10}^-f_{12}^-f_7^+-f_4^-f_5^-f_9^-f_{10}^-f_{12}^-f_7^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_4+E_6+E_7)}\\
\frac{+f_3^-f_4^-f_{11}^-f_{12}^-f_7^+f_{10}^+-f_4^-f_5^-f_{10}^-f_{11}^-f_{12}^-f_7^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_6+E_7)(-E_4-E_{11}-E_{12}+E_7+E_8+E_{10})}\\
\frac{+f_2^-f_3^-f_8^-f_9^-f_{11}^-f_{12}^--f_2^-f_5^-f_8^-f_{11}^-f_{12}^-f_9^++f_2^-f_5^-f_7^-f_8^-f_{11}^-f_9^+-f_2^-f_3^-f_7^-f_8^-f_{11}^-f_9^+}{(-E_2+E_4)(-E_3-E_9+E_5+E_{11})(-E_8-E_{11}+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)}\\
\frac{+f_2^-f_5^-f_6^-f_{11}^-f_{12}^-f_9^+-f_2^-f_3^-f_6^-f_9^-f_{11}^-f_{12}^--f_2^-f_5^-f_6^-f_7^-f_{11}^-f_9^++f_2^-f_3^-f_6^-f_7^-f_9^-f_{11}^+}{(-E_2+E_4)(-E_5-E_{11}+E_3+E_9)(-E_6-E_9+E_8+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_6+E_7)}\\
\frac{+f_3^-f_4^-f_7^-f_8^-f_{11}^-f_9^+-f_3^-f_4^-f_8^-f_9^-f_{11}^-f_{12}^-+f_4^-f_5^-f_8^-f_{11}^-f_{12}^-f_9^+-f_4^-f_5^-f_7^-f_8^-f_{11}^-f_9^+}{(-E_4+E_2)(-E_3-E_9+E_5+E_{11})(-E_8-E_{11}+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}\\
\frac{+f_4^-f_5^-f_6^-f_{11}^-f_{12}^-f_9^+-f_4^-f_5^-f_6^-f_7^-f_{11}^-f_9^+-f_3^-f_4^-f_6^-f_9^-f_{11}^-f_{12}^-+f_3^-f_4^-f_6^-f_7^-f_9^-f_{11}^+}{(-E_4+E_2)(-E_5-E_{11}+E_3+E_9)(-E_6-E_9+E_8+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_6+E_7)}\\
\frac{+f_2^-f_3^-f_9^-f_{11}^-f_{12}^-f_7^+-f_2^-f_5^-f_{11}^-f_{12}^-f_7^+f_9^+}{(-E_2+E_4)(-E_3-E_9+E_5+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_6+E_7)}\\
\frac{+f_4^-f_5^-f_{11}^-f_{12}^-f_7^+f_9^+-f_3^-f_4^-f_9^-f_{11}^-f_{12}^-f_7^+}{(-E_4+E_2)(-E_5-E_{11}+E_3+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_6+E_7)}\\
\frac{+f_2^-f_5^-f_6^-f_7^-f_9^+f_{12}^+-f_2^-f_3^-f_6^-f_7^-f_9^-f_{12}^-}{(-E_2+E_4)(-E_5-E_6-E_7+E_3+E_9+E_{12})(-E_9-E_{12}+E_7+E_8)(-E_2-E_6-E_7+E_9+E_{10}+E_{12})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-f_9^-f_{12}^--f_4^-f_5^-f_6^-f_7^-f_9^+f_{12}^+}{(-E_4+E_2)(-E_3-E_9-E_{12}+E_5+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_4-E_6-E_7+E_9+E_{10}+E_{12})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_2^-f_3^-f_7^-f_8^-f_{11}^-f_{12}^--f_2^-f_5^-f_{11}^-f_{12}^-f_7^+f_8^+}{(-E_2+E_4)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_6+E_7)(-E_3-E_7-E_8+E_5+E_{11}+E_{12})(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})}\\
\frac{+f_4^-f_5^-f_{11}^-f_{12}^-f_7^+f_8^+-f_3^-f_4^-f_7^-f_8^-f_{11}^-f_{12}^-}{(-E_4+E_2)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_6+E_7)(-E_5-E_{11}-E_{12}+E_3+E_7+E_8)(-E_4-E_{11}-E_{12}+E_7+E_8+E_{10})}
\end{array}\right.$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_{11}^- f_9^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_3+E_5+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_6+E_9+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_{11}^- f_9^+ - f_2^- f_5^- f_6^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_2+E_3)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6-E_8+E_2+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_3+E_5+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_2+E_3)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_7^- f_{11}^- f_9^+ - f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_2-E_7-E_{11}+E_5+E_9+E_{10})(-E_2-E_3-E_7+E_5+E_9+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^- - f_2^- f_5^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_2+E_3)(-E_5-E_9-E_{10}+E_2+E_7+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_2-E_7-E_{11}+E_5+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_2+E_3)(-E_2-E_7-E_{11}+E_5+E_9+E_{10})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_3+E_5+E_8)(-E_3-E_6+E_9+E_{12})(-E_3-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_7+E_5+E_9+E_{12})(-E_3-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^+ - f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_2+E_3)(-E_5-E_6-E_8+E_2+E_9+E_{12})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_9+E_{12})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_{11}^- f_6^+ f_9^+ - f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_6+E_9+E_{12})}$$

$$\frac{+f_2^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ - f_2^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_8-E_{10}+E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_{10}^- f_6^+ f_{12}^+ - f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_3-E_6+E_9+E_{12})(-E_3-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+ - f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{12}+E_3+E_6)(-E_2-E_9-E_{12}+E_5+E_6+E_8)}$$

$$\frac{+f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_3+E_6)(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_{10})(-E_2-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$\frac{+f_2^- f_7^- f_{11}^- f_{12}^- f_6^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_{10})(-E_6-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_2^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_9-E_{10}+E_2+E_7+E_{11})(-E_5-E_9-E_{12}+E_2+E_3+E_7)(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_7-E_{11}+E_5+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_{10})(-E_2-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_6+E_9+E_{12})}$$

$$\frac{+f_4^- f_5^- f_6^- f_8^- f_{11}^- f_9^+ - f_4^- f_5^- f_6^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_8+E_3+E_4)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_6-E_8+E_4+E_9+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_8+E_3+E_4)(-E_6-E_{11}+E_9+E_{10})(-E_5-E_8-E_{10}+E_4+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_{11}^- f_9^+ - f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_4-E_7-E_{11}+E_5+E_9+E_{10})(-E_3-E_4-E_7+E_5+E_9+E_{12})}$$

$$\frac{+f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^- - f_4^- f_5^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_8+E_3+E_4)(-E_5-E_9-E_{10}+E_4+E_7+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_4-E_7-E_{11}+E_5+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_8+E_3+E_4)(-E_4-E_7-E_{11}+E_5+E_9+E_{10})(-E_5-E_8-E_{10}+E_4+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_3-E_6+E_9+E_{12})(-E_3-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_5^- f_7^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_9+E_{12})(-E_3-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^+ - f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_8+E_3+E_4)(-E_5-E_6-E_8+E_4+E_9+E_{12})(-E_5-E_8-E_{10}+E_4+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_9+E_{12})(-E_5-E_8-E_{10}+E_4+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ - f_3^- f_4^- f_7^- f_{11}^- f_6^+ f_9^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_3-E_6+E_9+E_{12})}$$

$$\frac{+f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ - f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_8-E_{10}+E_6+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_{10}^- f_6^+ f_{12}^+ - f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_3-E_6+E_9+E_{12})(-E_3-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_4^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_9+E_{12})(-E_6-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_4^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{12}+E_3+E_6)(-E_4-E_9-E_{12}+E_5+E_6+E_8)}$$

$$\frac{+f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{12}+E_3+E_6)(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_{10})(-E_4-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$\frac{+f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ f_{10}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_{10})(-E_6-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_4^- f_5^- f_7^- f_9^- f_{11}^- f_{12}^- - f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_7^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_4-E_7-E_{11}+E_5+E_9+E_{10})(-E_5-E_9-E_{12}+E_3+E_4+E_7)(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_4-E_7-E_{11}+E_5+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_{10})(-E_4-E_{11}-E_{12}+E_5+E_8+E_{10})}$$

$$
+\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,10\}\{5,6|V|3,8\}\{7,8|V|9,2\}\{9,10|V|7,12\}\{11,12|V|11,6\}f_1^- f_{11}^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- -f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_5-E_6-E_7+E_2+E_3+E_9)(-E_2-E_3+E_5+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- -f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_6+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_8^- -f_2^- f_3^- f_5^- f_8^- f_9^-}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_2-E_3+E_5+E_{10})(-E_3-E_8+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_8^- f_9^- f_6^+ -f_2^- f_5^- f_6^- f_9^- f_8^+ +f_2^- f_5^- f_6^- f_7^- f_8^+ -f_2^- f_3^- f_7^- f_8^- f_6^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_2-E_6+E_8+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- -f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_8+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_6^+ -f_4^- f_5^- f_6^- f_9^- f_8^+ -f_3^- f_4^- f_7^- f_8^- f_6^+ +f_4^- f_5^- f_6^- f_7^- f_8^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_4-E_6+E_8+E_{10})(-E_6+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_9^- f_7^+}{(-E_2+E_4)(-E_2-E_3-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_2-E_3-E_9+E_5+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_6^+ f_7^+ -f_2^- f_5^- f_6^- f_7^- f_9^+}{(-E_2+E_4)(-E_2-E_3-E_9+E_5+E_6+E_7)(-E_2-E_9+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_7^+}{(-E_4+E_2)(-E_3-E_4-E_9+E_5+E_6+E_7)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_5+E_7+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_9^+ -f_3^- f_4^- f_9^- f_6^+ f_7^+}{(-E_4+E_2)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_4-E_9+E_7+E_8)(-E_6-E_7+E_9+E_{10})(-E_6+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_9^- f_{10}^- -f_2^- f_3^- f_8^- f_9^- f_{10}^+ +f_2^- f_3^- f_7^- f_8^- f_{10}^+ -f_2^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_5-E_{10}+E_2+E_3)(-E_8-E_{10}+E_2+E_6)(-E_8-E_{10}+E_2+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_7^+ f_{10}^+ -f_2^- f_5^- f_9^- f_{10}^- f_7^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_8^- f_9^- f_{12}^+ -f_2^- f_5^- f_9^- f_{12}^- f_8^+ +f_2^- f_5^- f_7^- f_{12}^- f_8^+ -f_2^- f_3^- f_7^- f_8^- f_{12}^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_{12}+E_6)(-E_3-E_8+E_5+E_{12})(-E_2-E_{12}+E_8+E_{10})} \\
\frac{+f_2^- f_3^- f_9^- f_7^+ f_{12}^+ -f_2^- f_5^- f_7^- f_{12}^- f_9^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_{12}+E_6)(-E_2-E_3-E_9+E_5+E_7+E_{12})(-E_7-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^+ -f_4^- f_5^- f_8^- f_9^- f_{10}^- +f_4^- f_5^- f_7^- f_8^- f_{10}^- -f_3^- f_4^- f_7^- f_8^- f_{10}^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_8-E_{10}+E_4+E_6)(-E_8-E_{10}+E_4+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_7^+ f_{10}^+ -f_4^- f_5^- f_9^- f_{10}^- f_7^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_9-E_{10}+E_6+E_7)(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_{12}^- f_8^+ +f_3^- f_4^- f_8^- f_9^- f_{12}^+ -f_3^- f_4^- f_7^- f_8^- f_{12}^+ -f_4^- f_5^- f_9^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_7-E_8+E_4+E_9)(-E_{12}+E_6)(-E_5-E_{12}+E_3+E_8)(-E_4-E_{12}+E_8+E_{10})} \\
\frac{+f_4^- f_5^- f_7^- f_{12}^- f_9^+ -f_3^- f_4^- f_9^- f_7^+ f_{12}^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_{12}+E_6)(-E_5-E_7-E_{12}+E_3+E_4+E_9)(-E_7-E_{12}+E_9+E_{10})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_{10}^- -f_2^- f_3^- f_6^- f_7^- f_{10}^+ -f_2^- f_5^- f_6^- f_9^- f_{10}^- +f_2^- f_3^- f_6^- f_9^- f_{10}^+}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_2-E_6+E_8+E_{10})(-E_6-E_7+E_9+E_{10})(-E_6+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_{12}^- -f_2^- f_3^- f_5^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_{10})(-E_{12}+E_6)(-E_5-E_{12}+E_3+E_8)(-E_5-E_7-E_{12}+E_2+E_3+E_9)} \\
\frac{+f_2^- f_5^- f_7^- f_{10}^- f_{12}^- -f_2^- f_3^- f_7^- f_{12}^- f_{10}^+ +f_2^- f_3^- f_9^- f_{12}^- f_{10}^+ -f_2^- f_5^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_5-E_{10}+E_2+E_3)(-E_{12}+E_6)(-E_2-E_{12}+E_8+E_{10})(-E_7-E_{12}+E_9+E_{10})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_{10}^- -f_3^- f_4^- f_6^- f_7^- f_{10}^+ -f_4^- f_5^- f_6^- f_9^- f_{10}^- +f_3^- f_4^- f_6^- f_9^- f_{10}^+}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_4-E_6+E_8+E_{10})(-E_6-E_7+E_9+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{12}^- -f_3^- f_4^- f_5^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{10})(-E_{12}+E_6)(-E_5-E_{12}+E_3+E_8)(-E_5-E_7-E_{12}+E_3+E_4+E_9)} \\
\frac{+f_4^- f_5^- f_9^- f_{10}^- f_{12}^- +f_3^- f_4^- f_7^- f_{12}^- f_{10}^+ -f_3^- f_4^- f_9^- f_{12}^- f_{10}^+ -f_4^- f_5^- f_7^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_6)(-E_4-E_{12}+E_8+E_{10})(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_3^+ f_9^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_6-E_7+E_2+E_3+E_9)(-E_5-E_6-E_7+E_3+E_4+E_9)(-E_6-E_7+E_9+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_6^+ f_9^+ -f_5^- f_6^- f_7^- f_8^- f_9^+}{(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_6-E_7+E_9+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_8^- f_9^+}{(-E_3-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_3-E_7-E_8+E_5+E_9+E_{10})(-E_3-E_8+E_5+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_3^+ -f_5^- f_6^- f_7^- f_{10}^- f_3^+}{(-E_5-E_6+E_3+E_8)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_6+E_7)(-E_6+E_{12})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_3^+ -f_5^- f_7^- f_8^- f_{10}^- f_3^+}{(-E_3-E_8+E_5+E_6)(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_5-E_9-E_{10}+E_3+E_7+E_8)(-E_3-E_8+E_5+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_{10}^- f_6^+ -f_3^- f_8^- f_9^- f_{10}^- f_6^+ +f_5^- f_8^- f_9^- f_{10}^- f_6^+ -f_5^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_3-E_8+E_5+E_6)(-E_8-E_{10}+E_2+E_6)(-E_8-E_{10}+E_4+E_6)(-E_6-E_7+E_9+E_{10})(-E_6+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_9^+ f_{10}^+ -f_5^- f_7^- f_8^- f_{10}^- f_9^+}{(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_9-E_{10}+E_6+E_7)(-E_3-E_7-E_8+E_5+E_9+E_{10})(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_{12}^- f_9^+ -f_3^- f_7^- f_8^- f_9^+ f_{12}^+}{(-E_7-E_8+E_2+E_9)(-E_7-E_8+E_4+E_9)(-E_{12}+E_6)(-E_5-E_{12}+E_3+E_8)(-E_7-E_{12}+E_9+E_{10})} \\
\frac{+f_5^- f_9^- f_{10}^- f_3^+ f_7^+}{(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_6+E_7)(-E_5-E_9-E_{10}+E_3+E_7+E_8)(-E_9-E_{10}+E_7+E_{12})} \\
\frac{+f_5^- f_7^- f_{10}^- f_{12}^- f_3^+ -f_5^- f_9^- f_{10}^- f_{12}^- f_3^+}{(-E_5-E_{10}+E_2+E_3)(-E_5-E_{10}+E_3+E_4)(-E_{12}+E_6)(-E_5-E_{12}+E_3+E_8)(-E_7-E_{12}+E_9+E_{10})} \\
\frac{+f_5^- f_7^- f_{12}^- f_3^+ f_9^+}{(-E_{12}+E_6)(-E_5-E_{12}+E_3+E_8)(-E_5-E_7-E_{12}+E_2+E_3+E_9)(-E_5-E_7-E_{12}+E_3+E_4+E_9)(-E_7-E_{12}+E_9+E_{10})} \\
\frac{+f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ -f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ -f_3^- f_8^- f_9^- f_{10}^- f_{12}^+ +f_5^- f_8^- f_9^- f_{10}^- f_{12}^+}{(-E_{12}+E_6)(-E_3-E_8+E_5+E_{12})(-E_8-E_{10}+E_2+E_{12})(-E_8-E_{10}+E_4+E_{12})(-E_7-E_{12}+E_9+E_{10})}
\end{array}\right)
$$

$$+\{1,2|V|1,4\}\{3,4|V|5,2\}\{5,6|V|7,12\}\{7,8|V|9,6\}\{9,10|V|3,8\}\{11,12|V|11,10\}f_1^-f_{11}^-\left(\begin{array}{r}
\frac{+f_2^-f_3^-f_6^-f_7^-f_9^- -f_3^-f_4^-f_6^-f_7^-f_9^- -f_2^-f_3^-f_6^-f_7^-f_8^- +f_3^-f_4^-f_6^-f_7^-f_8^-}{(-E_2+E_4)(-E_3+E_5)(-E_6-E_9+E_7+E_8)(-E_3-E_6+E_7+E_{10})(-E_3-E_6+E_7+E_{12})}\\
\frac{+f_2^-f_5^-f_6^-f_7^-f_8^- -f_2^-f_5^-f_6^-f_7^-f_9^- +f_4^-f_5^-f_6^-f_7^-f_9^- -f_4^-f_5^-f_6^-f_7^-f_8^-}{(-E_2+E_4)(-E_5+E_3)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_6^-f_9^-f_8^+ -f_2^-f_3^-f_7^-f_8^-f_9^+ -f_3^-f_4^-f_6^-f_9^-f_8^+ +f_3^-f_4^-f_7^-f_8^-f_9^+}{(-E_2+E_4)(-E_3+E_5)(-E_6-E_9+E_7+E_8)(-E_3-E_8+E_9+E_{10})(-E_3-E_8+E_9+E_{12})}\\
\frac{+f_4^-f_5^-f_7^-f_8^-f_9^+ +f_2^-f_5^-f_6^-f_9^-f_8^+ -f_4^-f_5^-f_6^-f_9^-f_8^+ -f_2^-f_5^-f_7^-f_8^-f_9^+}{(-E_4+E_2)(-E_5+E_3)(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_9+E_{12})}\\
\frac{+f_2^-f_3^-f_6^-f_9^-f_{10}^+ -f_3^-f_4^-f_6^-f_9^-f_{10}^+ +f_3^-f_4^-f_7^-f_9^-f_{10}^- -f_3^-f_4^-f_7^-f_8^-f_{10}^- -f_2^-f_3^-f_7^-f_9^-f_{10}^- -f_2^-f_3^-f_6^-f_8^-f_{10}^+ +f_3^-f_4^-f_6^-f_8^-f_{10}^+ +f_2^-f_3^-f_7^-f_8^-f_{10}^-}{(-E_2+E_4)(-E_3+E_5)(-E_3-E_6+E_7+E_{10})(-E_9-E_{10}+E_3+E_8)(-E_{10}+E_{12})}\\
\frac{+f_4^-f_5^-f_7^-f_9^-f_{10}^- -f_2^-f_5^-f_7^-f_9^-f_{10}^- +f_4^-f_5^-f_6^-f_8^-f_{10}^+ -f_4^-f_5^-f_7^-f_8^-f_{10}^- +f_2^-f_5^-f_6^-f_9^-f_{10}^+ -f_4^-f_5^-f_6^-f_9^-f_{10}^+ -f_2^-f_5^-f_6^-f_8^-f_{10}^+ +f_2^-f_5^-f_7^-f_8^-f_{10}^-}{(-E_4+E_2)(-E_5+E_3)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})}\\
\frac{+f_2^-f_3^-f_6^-f_9^-f_{12}^+ -f_3^-f_4^-f_7^-f_8^-f_{12}^- +f_3^-f_4^-f_6^-f_8^-f_{12}^+ -f_3^-f_4^-f_6^-f_9^-f_{12}^+ +f_3^-f_4^-f_7^-f_9^-f_{12}^- -f_2^-f_3^-f_7^-f_9^-f_{12}^- +f_2^-f_3^-f_7^-f_8^-f_{12}^- -f_2^-f_3^-f_6^-f_8^-f_{12}^+}{(-E_2+E_4)(-E_3+E_5)(-E_3-E_6+E_7+E_{12})(-E_9-E_{12}+E_3+E_8)(-E_{12}+E_{10})}\\
\frac{+f_4^-f_5^-f_7^-f_8^-f_{12}^- -f_4^-f_5^-f_7^-f_9^-f_{12}^- +f_2^-f_5^-f_7^-f_9^-f_{12}^- -f_2^-f_5^-f_6^-f_9^-f_{12}^+ -f_2^-f_5^-f_7^-f_8^-f_{12}^- -f_4^-f_5^-f_6^-f_8^-f_{12}^+ +f_4^-f_5^-f_6^-f_9^-f_{12}^+ +f_2^-f_5^-f_6^-f_8^-f_{12}^+}{(-E_4+E_2)(-E_5+E_3)(-E_7-E_{12}+E_5+E_6)(-E_5-E_8+E_9+E_{12})(-E_{12}+E_{10})}\\
\frac{+f_4^-f_7^-f_8^-f_{10}^-f_6^+ +f_2^-f_7^-f_9^-f_{10}^-f_6^+ -f_4^-f_7^-f_9^-f_{10}^-f_6^+ -f_2^-f_7^-f_8^-f_{10}^-f_6^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_5+E_6)(-E_{10}+E_{12})}\\
\frac{+f_4^-f_7^-f_9^-f_{10}^-f_8^+ +f_2^-f_6^-f_9^-f_{10}^-f_8^+ -f_2^-f_7^-f_9^-f_{10}^-f_8^+ -f_4^-f_6^-f_9^-f_{10}^-f_8^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_3+E_8)(-E_9-E_{10}+E_5+E_8)(-E_{10}+E_{12})}\\
\frac{+f_4^-f_7^-f_9^-f_{12}^-f_6^+ +f_2^-f_7^-f_8^-f_{12}^-f_6^+ -f_2^-f_7^-f_9^-f_{12}^-f_6^+ -f_4^-f_7^-f_8^-f_{12}^-f_6^+}{(-E_4+E_2)(-E_6-E_9+E_7+E_8)(-E_7-E_{12}+E_3+E_6)(-E_7-E_{12}+E_5+E_6)(-E_{12}+E_{10})}\\
\frac{+f_4^-f_6^-f_9^-f_{12}^-f_8^+ -f_2^-f_6^-f_9^-f_{12}^-f_8^+ -f_4^-f_7^-f_9^-f_{12}^-f_8^+ +f_2^-f_7^-f_9^-f_{12}^-f_8^+}{(-E_4+E_2)(-E_6-E_9+E_7+E_8)(-E_9-E_{12}+E_3+E_8)(-E_9-E_{12}+E_5+E_8)(-E_{12}+E_{10})}
\end{array}\right)$$

$$+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|3,8\}\{7,8|V|9,6\}\{9,10|V|11,2\}\{11,12|V|7,10\}f_1^- \left(\begin{array}{c}
\frac{+f_2^- f_5^- f_6^- f_7^- f_{10}^- f_3^+ + f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- - f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- - f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_5-E_7+E_3+E_9)(-E_5-E_7-E_{10}+E_2+E_3+E_{11})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_{10}^- f_3^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- - f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- - f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_5-E_7+E_3+E_9)(-E_5-E_7-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_8^- f_9^- f_{11}^- - f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- - f_2^- f_3^- f_5^- f_8^- f_9^- f_{10}^- + f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_3-E_9+E_5+E_7)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^- - f_3^- f_4^- f_5^- f_8^- f_9^- f_{11}^- + f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- - f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_3-E_9+E_5+E_7)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_8^- f_{10}^- - f_2^- f_5^- f_6^- f_7^- f_{11}^- f_8^+ + f_2^- f_3^- f_7^- f_8^- f_{11}^- f_6^+ - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_7-E_8+E_6+E_9)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_{11}^- f_8^+ + f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+ - f_4^- f_5^- f_6^- f_7^- f_8^- f_{10}^- - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_7-E_8+E_6+E_9)(-E_4-E_6-E_{11}+E_7+E_8+E_{10})(-E_4-E_6+E_8+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{11}^- f_8^+ - f_2^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ - f_2^- f_3^- f_8^- f_9^- f_{11}^- f_6^+ + f_2^- f_3^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_6-E_9+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{11}^- f_6^+ - f_3^- f_4^- f_8^- f_9^- f_{10}^- f_6^+ + f_4^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ - f_4^- f_5^- f_6^- f_9^- f_{11}^- f_8^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_6+E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{10}^+ - f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_5-E_6+E_3+E_8)(-E_2-E_3-E_{11}+E_5+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_3-E_8+E_5+E_6)(-E_3-E_4-E_{11}+E_5+E_7+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_8^- f_{11}^- f_6^+ f_{10}^+ - f_2^- f_5^- f_6^- f_{11}^- f_8^+ f_{10}^+}{(-E_2+E_4)(-E_3-E_8+E_5+E_6)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_6+E_8+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_{11}^- f_8^+ f_{10}^+ - f_3^- f_4^- f_8^- f_{11}^- f_6^+ f_{10}^+}{(-E_4+E_2)(-E_5-E_6+E_3+E_8)(-E_4-E_6-E_{11}+E_7+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_4-E_6+E_8+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ - f_2^- f_3^- f_8^- f_9^- f_{11}^- f_7^+ - f_2^- f_5^- f_7^- f_8^- f_{10}^- f_9^+ - f_2^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ - f_2^- f_3^- f_6^- f_9^- f_{10}^- f_7^+ + f_2^- f_3^- f_8^- f_9^- f_{10}^- f_7^+ + f_2^- f_5^- f_6^- f_7^- f_9^- f_{10}^- + f_2^- f_3^- f_6^- f_9^- f_{11}^- f_7^+}{(-E_2+E_4)(-E_5-E_7+E_3+E_9)(-E_7-E_8+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_7+E_9+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ - f_3^- f_4^- f_8^- f_9^- f_{11}^- f_7^+ - f_4^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ + f_3^- f_4^- f_6^- f_9^- f_{11}^- f_7^+ - f_4^- f_5^- f_7^- f_8^- f_{10}^- f_9^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^- f_7^+ + f_4^- f_5^- f_6^- f_7^- f_9^- f_{10}^- + f_3^- f_4^- f_8^- f_9^- f_{10}^- f_7^+}{(-E_4+E_2)(-E_5-E_7+E_3+E_9)(-E_7-E_8+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_4-E_7+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_{11}^- f_7^+ f_{10}^+ + f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^+ - f_2^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- - f_2^- f_3^- f_8^- f_{11}^- f_7^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_3-E_{11}+E_5+E_7+E_{10})(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^+ + f_3^- f_4^- f_6^- f_{11}^- f_7^+ f_{10}^+ - f_4^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- - f_3^- f_4^- f_8^- f_{11}^- f_7^+ f_{10}^+}{(-E_4+E_2)(-E_5-E_7-E_{10}+E_3+E_4+E_{11})(-E_7-E_8-E_{10}+E_4+E_6+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- - f_2^- f_3^- f_8^- f_9^- f_{11}^- f_{12}^+ + f_2^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^+ - f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- + f_2^- f_3^- f_8^- f_9^- f_{10}^- f_{12}^+ + f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^+ - f_2^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_8-E_{12}+E_2+E_6)(-E_9-E_{12}+E_2+E_7)} \\
\frac{+f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_3^- f_6^- f_{11}^- f_{10}^+ f_{12}^+ - f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_8^- f_{11}^- f_{10}^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_8-E_{12}+E_2+E_6)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{11}^- f_{12}^+ - f_4^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- + f_4^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- - f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^+ - f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- + f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^+ + f_4^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- - f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_8-E_{12}+E_4+E_6)(-E_9-E_{12}+E_4+E_7)} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_{10}^+ f_{12}^+ + f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_8^- f_{11}^- f_{10}^+ f_{12}^+ - f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_4-E_6+E_8+E_{12})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{10}^- f_{12}^+ - f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- + f_2^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- - f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^+ + f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^+ + f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_2^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{12})(-E_2-E_6+E_8+E_{12})(-E_2-E_7+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{12}^+ - f_4^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+ + f_4^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- + f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^+ - f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^+ + f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_4-E_6+E_8+E_{12})(-E_4-E_7+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_{10}^- f_3^+ f_{11}^+ - f_5^- f_6^- f_7^- f_{10}^- f_3^+ f_{11}^+}{(-E_3-E_8+E_5+E_6)(-E_5-E_7+E_3+E_9)(-E_5-E_7-E_{10}+E_2+E_3+E_{11})(-E_5-E_7-E_{10}+E_3+E_4+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+ - f_3^- f_5^- f_8^- f_9^- f_{10}^- f_{11}^+}{(-E_5-E_6+E_3+E_8)(-E_3-E_9+E_5+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_3^+ - f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_3^+ + f_5^- f_6^- f_7^- f_{10}^- f_{12}^- f_3^+ - f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_3^+}{(-E_3-E_8+E_5+E_6)(-E_5-E_7+E_3+E_9)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_3^+ + f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_3^+ - f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_3^+ - f_5^- f_8^- f_9^- f_{11}^- f_{12}^- f_3^+}{(-E_3-E_8+E_5+E_6)(-E_3-E_9+E_5+E_7)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_{10}^- f_6^+ f_{11}^+ - f_3^- f_7^- f_8^- f_{10}^- f_6^+ f_{11}^+}{(-E_5-E_6+E_3+E_8)(-E_7-E_8+E_6+E_9)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_7-E_8-E_{10}+E_4+E_6+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_8^+ f_{11}^+ - f_3^- f_8^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_5-E_6+E_3+E_8)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_6-E_9-E_{10}+E_8+E_{11}+E_{12})} \\
\frac{+f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+ - f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ + f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_3^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+}{(-E_5-E_6+E_3+E_8)(-E_7-E_8+E_6+E_9)(-E_8-E_{12}+E_2+E_6)(-E_8-E_{12}+E_4+E_6)(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_8^- f_9^- f_{11}^- f_{12}^- f_6^+ - f_3^- f_8^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_5^- f_8^- f_9^- f_{11}^- f_{12}^- f_6^+}{(-E_3-E_8+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_8-E_{12}+E_2+E_6)(-E_8-E_{12}+E_4+E_6)(-E_8-E_{11}-E_{12}+E_6+E_9+E_{10})} \\
\frac{+f_5^- f_8^- f_{11}^- f_{12}^- f_3^+ f_{10}^+ - f_5^- f_6^- f_{11}^- f_{12}^- f_3^+ f_{10}^+}{(-E_3-E_8+E_5+E_6)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_7+E_{10})(-E_5-E_{11}-E_{12}+E_3+E_9+E_{10})} \\
\frac{+f_5^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ - f_3^- f_8^- f_{11}^- f_{12}^- f_6^+ f_{10}^+}{(-E_5-E_6+E_3+E_8)(-E_8-E_{12}+E_2+E_6)(-E_8-E_{12}+E_4+E_6)(-E_{11}-E_{12}+E_7+E_{10})(-E_8-E_{11}-E_{12}+E_6+E_9+E_{10})} \\
\frac{+f_5^- f_7^- f_8^- f_9^- f_{10}^- f_{11}^+ - f_3^- f_8^- f_9^- f_{10}^- f_7^+ f_{11}^+ + f_3^- f_6^- f_9^- f_{10}^- f_7^+ f_{11}^+ - f_5^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_5-E_7+E_3+E_9)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_5^- f_8^- f_9^- f_{11}^- f_{12}^- f_7^+ - f_3^- f_6^- f_9^- f_{10}^- f_{12}^- f_7^+ + f_3^- f_8^- f_9^- f_{10}^- f_{12}^- f_7^+ + f_3^- f_6^- f_9^- f_{11}^- f_{12}^- f_7^+ - f_3^- f_8^- f_9^- f_{11}^- f_{12}^- f_7^+ - f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_7^+ + f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_7^+}{(-E_5-E_7+E_3+E_9)(-E_7-E_8+E_6+E_9)(-E_9-E_{12}+E_2+E_7)(-E_9-E_{12}+E_4+E_7)(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_6^- f_9^- f_{10}^- f_{11}^+ f_{12}^+ - f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_3^- f_8^- f_9^- f_{10}^- f_{11}^+ f_{12}^+ + f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_{11}^+}{(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_{11}-E_{12}+E_7+E_{10})(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})(-E_6-E_9-E_{10}+E_8+E_{11}+E_{12})}
\end{array} \right)$$

$$+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,2\}\{7,8|V|9,6\}\{9,10|V|11,8\}\{11,12|V|3,10\}f_1^- \left(\begin{array}{r}
\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- +f_2^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ -f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- -f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- -f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- +f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- -f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- +f_2^- f_3^- f_6^- f_9^- f_{11}^- f_5^+ +f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+ -f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- +f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- -f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- -f_2^- f_3^- f_7^- f_9^- f_{11}^- f_5^+ +f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_5^+ -f_2^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^- +f_2^- f_3^- f_5^- f_6^- f_8^- f_{10}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_2+E_9)(-E_5-E_{10}+E_2+E_{11})(-E_5-E_{12}+E_2+E_3)} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{11}^- f_7^+ -f_2^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- -f_2^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+ +f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ -f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^- +f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ +f_2^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ -f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_6-E_{11}+E_7+E_{10})(-E_3-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_5^+ +f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- +f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- -f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- -f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- -f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- -f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^- -f_4^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^- -f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+ -f_4^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- +f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_5^+ +f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- -f_3^- f_4^- f_7^- f_9^- f_{11}^- f_5^+ +f_3^- f_4^- f_6^- f_9^- f_{11}^- f_5^+ +f_3^- f_4^- f_5^- f_6^- f_8^- f_{10}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_4-E_9+E_5+E_8)(-E_5-E_{10}+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{11}^- f_7^+ +f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ -f_4^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- +f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+ +f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ -f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- -f_4^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+ -f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_6-E_9+E_7+E_8)(-E_6-E_{11}+E_7+E_{10})(-E_3-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{11}^- f_{12}^- -f_2^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ -f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+ +f_2^- f_3^- f_6^- f_8^- f_9^- f_{11}^- -f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ +f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- -f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_8^+ +f_2^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_2-E_9+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_3+E_8)} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_8^+ +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+ -f_4^- f_7^- f_8^- f_9^- f_{11}^- f_{12}^- -f_3^- f_4^- f_6^- f_8^- f_9^- f_{11}^- +f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ +f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+ -f_4^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_4-E_9+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_3+E_8)} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_{11}^- f_{12}^- +f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- +f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{11}^- -f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+ -f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+ +f_2^- f_6^- f_8^- f_{11}^- f_{12}^- f_{10}^+ -f_2^- f_6^- f_9^- f_{11}^- f_{12}^- f_{10}^+ -f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_2-E_{11}+E_5+E_{10})(-E_7-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_3+E_{10})} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_{11}^- f_{12}^- -f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_{10}^+ +f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- -f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{10}^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+ +f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{11}^- +f_4^- f_6^- f_8^- f_{11}^- f_{12}^- f_{10}^+ -f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_4-E_{11}+E_5+E_{10})(-E_7-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_3+E_{10})} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- -f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^+ -f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ +f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- -f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_3^+ +f_2^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- -f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{12}^+ +f_2^- f_3^- f_6^- f_8^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{12})(-E_7-E_{12}+E_3+E_6)(-E_9-E_{12}+E_3+E_8)(-E_3-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- +f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- -f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- +f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_3^+ +f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{12}^+ -f_3^- f_4^- f_6^- f_8^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_6+E_7+E_{12})(-E_9-E_{12}+E_3+E_8)(-E_3-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- f_7^+ -f_3^- f_5^- f_6^- f_8^- f_{10}^- f_7^+ -f_3^- f_5^- f_6^- f_9^- f_{11}^- f_7^+ +f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_7^+ +f_3^- f_5^- f_6^- f_8^- f_{11}^- f_7^+ -f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_7^+ +f_5^- f_6^- f_8^- f_{10}^- f_{12}^- f_7^+ -f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_6+E_{11})(-E_3-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_{10}^- f_9^+ +f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_9^+ -f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_9^+ +f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_9^+ -f_3^- f_5^- f_7^- f_8^- f_{10}^- f_9^+ +f_3^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ -f_5^- f_6^- f_8^- f_{10}^- f_{12}^- f_9^+ -f_3^- f_5^- f_6^- f_8^- f_{11}^- f_9^+}{(-E_5-E_8+E_2+E_9)(-E_5-E_8+E_4+E_9)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ +f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_{11}^+ +f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_{11}^+ +f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^+ -f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ -f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^+ -f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+ -f_5^- f_6^- f_8^- f_{10}^- f_{12}^- f_{11}^+}{(-E_5-E_{10}+E_2+E_{11})(-E_5-E_{10}+E_4+E_{11})(-E_7-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_3-E_{10}+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_3^+ -f_5^- f_7^- f_9^- f_{11}^- f_{12}^- f_3^+ +f_5^- f_7^- f_9^- f_{10}^- f_{12}^- f_3^+ -f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_3^+ +f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_3^+ -f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_3^+ +f_5^- f_6^- f_8^- f_{10}^- f_{12}^- f_3^+ -f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_3^+}{(-E_5-E_{12}+E_2+E_3)(-E_5-E_{12}+E_3+E_4)(-E_3-E_6+E_7+E_{12})(-E_9-E_{12}+E_3+E_8)(-E_{11}-E_{12}+E_3+E_{10})}
\end{array}\right)$$

$$+\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|7,12\}\{7,8|V|3,10\}\{9,10|V|11,2\}\{11,12|V|9,6\}f_1^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_6^- f_7^- f_9^- f_5^+ - f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- - f_2^- f_3^- f_7^- f_9^- f_{12}^- f_5^+ + f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_5^+ + f_2^- f_5^- f_6^- f_7^- f_8^- f_{11}^- + f_2^- f_7^- f_8^- f_9^- f_{12}^- f_5^+ - f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_5^- f_6^- f_7^- f_8^- f_9^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_7+E_5+E_{10})(-E_7-E_9+E_5+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_9^- f_{10}^- - f_2^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- + f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- + f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- - f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- - f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- + f_2^- f_5^- f_8^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_{10}+E_2+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_9^- - f_2^- f_7^- f_8^- f_9^- f_{12}^- f_3^+ + f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_3^- f_6^- f_7^- f_{11}^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_3+E_{10})(-E_7-E_8-E_9+E_2+E_3+E_{11})(-E_2-E_3-E_6+E_7+E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ - f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_8^+ + f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_3-E_{10}+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_6+E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_9^+ + f_2^- f_3^- f_5^- f_6^- f_{11}^- f_9^+ - f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_9^+ - f_2^- f_5^- f_6^- f_8^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_{11}+E_7+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_9^+ - f_2^- f_3^- f_{11}^- f_{12}^- f_8^+ f_9^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+ - f_2^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ - f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^+ + f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_6+E_7+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_8^+ f_{12}^+ - f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_6+E_7+E_8+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_5^+ - f_3^- f_4^- f_7^- f_9^- f_{12}^- f_5^+ - f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^- + f_4^- f_7^- f_8^- f_9^- f_{12}^- f_5^+ + f_4^- f_5^- f_6^- f_7^- f_8^- f_{11}^- - f_4^- f_5^- f_6^- f_7^- f_8^- f_9^- - f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- + f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_4-E_7+E_5+E_{10})(-E_7-E_9+E_5+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- - f_4^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- + f_4^- f_5^- f_6^- f_8^- f_9^- f_{10}^- - f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- + f_3^- f_4^- f_5^- f_6^- f_{10}^- f_{11}^- - f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- + f_4^- f_5^- f_8^- f_{10}^- f_{11}^- f_{12}^- - f_4^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_{10}+E_4+E_7)(-E_9-E_{10}+E_4+E_{11})(-E_{10}-E_{12}+E_4+E_6)} \\
\frac{+f_4^- f_7^- f_8^- f_9^- f_{12}^- f_3^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- + f_3^- f_4^- f_6^- f_7^- f_{11}^- f_8^+ - f_3^- f_4^- f_6^- f_7^- f_8^- f_9^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_3+E_{10})(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_7-E_8-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+ + f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_8^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_{10}+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_{10}-E_{12}+E_4+E_6)} \\
\frac{+f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_9^+ - f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_9^+ + f_4^- f_5^- f_6^- f_8^- f_{11}^- f_9^+ - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_{11}+E_7+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_9^+ - f_3^- f_4^- f_{11}^- f_{12}^- f_8^+ f_9^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^+ - f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+ + f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{12}^+}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_4-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_8^+ f_{12}^+ - f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_4-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^- + f_2^- f_6^- f_7^- f_8^- f_9^- f_{10}^+ - f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- + f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{10}^+ - f_2^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+ - f_2^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_{10})(-E_3-E_{10}+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_{10}-E_{12}+E_2+E_6)} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- - f_4^- f_6^- f_7^- f_8^- f_9^- f_{10}^+ - f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{10}^+ + f_4^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+ + f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- + f_4^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_{10})(-E_3-E_{10}+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_4-E_6+E_{10}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{11}^- f_{12}^- + f_2^- f_3^- f_6^- f_7^- f_9^- f_{11}^- - f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_2^- f_6^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_7-E_9+E_5+E_{11})(-E_7-E_8-E_9+E_2+E_3+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_4^- f_7^- f_8^- f_9^- f_{11}^- f_{12}^- + f_4^- f_6^- f_7^- f_8^- f_9^- f_{11}^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_{11}^-}{(-E_4+E_2)(-E_7-E_9+E_5+E_{11})(-E_3-E_4-E_{11}+E_7+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- - f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ + f_2^- f_6^- f_7^- f_8^- f_9^- f_{12}^- - f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^+}{(-E_2+E_4)(-E_7-E_{12}+E_5+E_6)(-E_2-E_3-E_6+E_7+E_8+E_{12})(-E_2-E_6+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_4^- f_6^- f_7^- f_8^- f_9^- f_{12}^- + f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^- - f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^+}{(-E_4+E_2)(-E_7-E_{12}+E_5+E_6)(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_4-E_6+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_8^- f_{11}^- f_3^+ - f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_3^+ - f_5^- f_6^- f_7^- f_8^- f_9^- f_3^+ + f_5^- f_7^- f_8^- f_9^- f_{12}^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_3+E_{10})(-E_5-E_{11}+E_7+E_9)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_9^- f_{10}^- f_3^+ - f_5^- f_6^- f_8^- f_{10}^- f_{11}^- f_3^+ - f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_3^+ + f_5^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_3-E_{10}+E_7+E_8)(-E_3-E_9-E_{10}+E_5+E_8+E_{11})(-E_5-E_6-E_8+E_3+E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_{11}^- f_3^+ f_9^+ - f_5^- f_8^- f_{11}^- f_{12}^- f_3^+ f_9^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_5-E_{11}+E_7+E_9)(-E_5-E_8-E_{11}+E_3+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_8^- f_9^- f_3^+ f_{12}^+ - f_5^- f_6^- f_8^- f_{11}^- f_3^+ f_{12}^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_6-E_8+E_3+E_{10}+E_{12})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_5^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_7^+ - f_5^- f_6^- f_8^- f_9^- f_{10}^- f_7^+ + f_5^- f_6^- f_8^- f_{10}^- f_{11}^- f_7^+ + f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_7^+ + f_3^- f_5^- f_6^- f_9^- f_{10}^- f_7^+ - f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_7^+ - f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_7^+}{(-E_5-E_{10}+E_2+E_7)(-E_5-E_{10}+E_4+E_7)(-E_7-E_8+E_3+E_{10})(-E_7-E_9+E_5+E_{11})(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_7^- f_8^- f_9^- f_{12}^- f_3^+ f_{11}^+ - f_6^- f_7^- f_8^- f_9^- f_3^+ f_{11}^+}{(-E_7-E_8+E_3+E_{10})(-E_7-E_9+E_5+E_{11})(-E_7-E_8-E_9+E_2+E_3+E_{11})(-E_7-E_8-E_9+E_3+E_4+E_{11})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ + f_7^- f_8^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_6^- f_7^- f_8^- f_9^- f_{10}^- f_{11}^+}{(-E_3-E_{10}+E_7+E_8)(-E_7-E_9+E_5+E_{11})(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_9^- f_{10}^- f_{12}^- f_8^+ f_{11}^+ - f_3^- f_6^- f_9^- f_{10}^- f_8^+ f_{11}^+}{(-E_3-E_{10}+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_5+E_8+E_{11})(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_7^- f_8^- f_9^- f_{12}^- f_3^+ f_6^+ - f_7^- f_8^- f_{11}^- f_{12}^- f_3^+ f_6^+}{(-E_7-E_8+E_3+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_7-E_8-E_{12}+E_2+E_3+E_6)(-E_7-E_8-E_{12}+E_3+E_4+E_6)(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_7^- f_8^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_7-E_8+E_3+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_{10}-E_{12}+E_2+E_6)(-E_{10}-E_{12}+E_4+E_6)(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_{10}^- f_{11}^- f_{12}^- f_6^+ f_8^+ - f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+}{(-E_3-E_{10}+E_7+E_8)(-E_{10}-E_{12}+E_2+E_6)(-E_{10}-E_{12}+E_4+E_6)(-E_3-E_{10}-E_{12}+E_5+E_6+E_8)(-E_{11}-E_{12}+E_6+E_9)} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+ + f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_5^- f_6^- f_8^- f_9^- f_{10}^- f_{11}^+}{(-E_5-E_{11}+E_7+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_5+E_8+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_5^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_6^+ + f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_5-E_6+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_6)(-E_{10}-E_{12}+E_4+E_6)(-E_3-E_{10}-E_{12}+E_5+E_6+E_8)(-E_{11}-E_{12}+E_6+E_9)}
\end{array} \right)$$

$$+\{1,2|V|1,4\}\{3,4|V|5,2\}\{5,6|V|7,10\}\{7,8|V|9,12\}\{9,10|V|11,6\}\{11,12|V|3,8\}f_1^- \begin{pmatrix} \frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^- + f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^- - f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- + f_2^- f_3^- f_6^- f_7^- f_8^- f_9^- - f_3^- f_4^- f_6^- f_7^- f_8^- f_9^- + f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_3+E_5)(-E_7-E_{10}+E_3+E_6)(-E_3-E_9+E_7+E_{11})(-E_9-E_{12}+E_7+E_8)} \\ \frac{+f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_3^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- - f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_3^+ + f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- + f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- - f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^- + f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- - f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_3+E_5)(-E_7-E_{10}+E_3+E_6)(-E_7-E_{11}+E_3+E_9)(-E_{11}-E_{12}+E_3+E_8)} \\ \frac{+f_2^- f_3^- f_6^- f_9^- f_{12}^- f_{10}^+ + f_3^- f_4^- f_6^- f_8^- f_9^- f_{10}^+ - f_2^- f_3^- f_6^- f_8^- f_9^- f_{10}^+ - f_3^- f_4^- f_6^- f_9^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_3+E_5)(-E_3-E_6+E_7+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{10}-E_{12}+E_3+E_6+E_8)} \\ \frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_6^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_3^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_6+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_3-E_8+E_{11}+E_{12})} \\ \frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{12}^+ - f_2^- f_3^- f_6^- f_7^- f_8^- f_{12}^+ + f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_6+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_8+E_{11}+E_{12})} \\ \frac{+f_2^- f_3^- f_6^- f_8^- f_{10}^+ f_{12}^+ - f_3^- f_4^- f_6^- f_8^- f_{10}^+ f_{12}^+}{(-E_2+E_4)(-E_3+E_5)(-E_3-E_6+E_7+E_{10})(-E_3-E_6-E_8+E_9+E_{10}+E_{12})(-E_3-E_8+E_{11}+E_{12})} \\ \frac{+f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- - f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- - f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^- + f_2^- f_5^- f_6^- f_7^- f_9^- f_{12}^- - f_4^- f_5^- f_6^- f_7^- f_9^- f_{12}^- - f_2^- f_5^- f_6^- f_7^- f_8^- f_9^- + f_4^- f_5^- f_6^- f_7^- f_8^- f_9^- + f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5+E_3)(-E_7-E_{10}+E_5+E_6)(-E_5-E_9+E_7+E_{11})(-E_9-E_{12}+E_7+E_8)} \\ \frac{+f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_5^+ - f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_5^+ - f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- + f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- + f_2^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- - f_4^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- + f_4^- f_5^- f_6^- f_7^- f_8^- f_{11}^- - f_2^- f_5^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_5+E_3)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{11}+E_5+E_9)(-E_{11}-E_{12}+E_5+E_8)} \\ \frac{+f_4^- f_5^- f_6^- f_9^- f_{12}^- f_{10}^+ - f_2^- f_5^- f_6^- f_9^- f_{12}^- f_{10}^+ - f_4^- f_5^- f_6^- f_8^- f_9^- f_{10}^+ + f_2^- f_5^- f_6^- f_8^- f_9^- f_{10}^+}{(-E_4+E_2)(-E_5+E_3)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)} \\ \frac{+f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ + f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+ - f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_5+E_3)(-E_5-E_6+E_7+E_{10})(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_5+E_8)} \\ \frac{+f_2^- f_5^- f_6^- f_7^- f_8^- f_{12}^+ - f_4^- f_5^- f_6^- f_7^- f_8^- f_{12}^+ - f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ + f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_5+E_3)(-E_5-E_6+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\ \frac{+f_2^- f_5^- f_6^- f_8^- f_{10}^+ f_{12}^+ - f_4^- f_5^- f_6^- f_8^- f_{10}^+ f_{12}^+}{(-E_2+E_4)(-E_5+E_3)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})(-E_5-E_8+E_{11}+E_{12})} \\ \frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_{11}^+ + f_2^- f_3^- f_6^- f_9^- f_{12}^- f_{11}^+ - f_3^- f_4^- f_6^- f_9^- f_{12}^- f_{11}^+ - f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_{11}^+ + f_2^- f_3^- f_8^- f_9^- f_{10}^- f_{11}^+ - f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{11}^+ + f_3^- f_4^- f_6^- f_8^- f_9^- f_{11}^+ - f_2^- f_3^- f_6^- f_8^- f_9^- f_{11}^+}{(-E_4+E_2)(-E_3+E_5)(-E_3-E_9+E_7+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_{11}-E_{12}+E_3+E_8)} \\ \frac{+f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+ + f_2^- f_5^- f_8^- f_9^- f_{10}^- f_{11}^+ + f_4^- f_5^- f_6^- f_8^- f_9^- f_{11}^+ - f_4^- f_5^- f_8^- f_9^- f_{10}^- f_{11}^+ + f_2^- f_5^- f_6^- f_9^- f_{12}^- f_{11}^+ - f_2^- f_5^- f_6^- f_8^- f_9^- f_{11}^+ - f_4^- f_5^- f_6^- f_9^- f_{12}^- f_{11}^+}{(-E_4+E_2)(-E_5+E_3)(-E_5-E_9+E_7+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_{11}-E_{12}+E_5+E_8)} \\ \frac{+f_2^- f_3^- f_6^- f_9^- f_{12}^- f_8^+ + f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_3^- f_4^- f_6^- f_9^- f_{12}^- f_8^+ - f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_3+E_5)(-E_9-E_{12}+E_7+E_8)(-E_3-E_6-E_8+E_9+E_{10}+E_{12})(-E_3-E_8+E_{11}+E_{12})} \\ \frac{+f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_4^- f_5^- f_6^- f_9^- f_{12}^- f_8^+ - f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ + f_2^- f_5^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_5+E_3)(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)(-E_5-E_8+E_{11}+E_{12})} \\ \frac{+f_2^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ - f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ + f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_6+E_{11})(-E_7-E_8+E_9+E_{12})} \\ \frac{+f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ + f_4^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ - f_2^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_5+E_6)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_8-E_{10}+E_6+E_{11}+E_{12})} \\ \frac{+f_4^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+ - f_2^- f_7^- f_8^- f_{10}^- f_6^+ f_{12}^+}{(-E_4+E_2)(-E_7-E_{10}+E_3+E_6)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_6+E_{11}+E_{12})} \\ \frac{+f_4^- f_6^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_9^+ - f_2^- f_6^- f_7^- f_{11}^- f_{12}^- f_9^+ + f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_9^+ + f_2^- f_7^- f_9^- f_{10}^- f_{11}^- f_{12}^- - f_4^- f_7^- f_9^- f_{10}^- f_{11}^- f_{12}^- + f_2^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ - f_4^- f_6^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_7-E_{11}+E_3+E_9)(-E_7-E_{11}+E_5+E_9)(-E_6-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)} \\ \frac{+f_4^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+ - f_2^- f_9^- f_{10}^- f_{12}^- f_6^+ f_8^+}{(-E_4+E_2)(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_3+E_6+E_8)(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)} \\ \frac{+f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ - f_4^- f_9^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_2^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ + f_2^- f_9^- f_{10}^- f_{11}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_6-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_3+E_8)(-E_{11}-E_{12}+E_5+E_8)} \\ \frac{+f_2^- f_6^- f_{11}^- f_{12}^- f_8^+ f_{10}^+ - f_4^- f_6^- f_{11}^- f_{12}^- f_8^+ f_{10}^+}{(-E_2+E_4)(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_8)(-E_{11}-E_{12}+E_5+E_8)(-E_6-E_{11}-E_{12}+E_7+E_8+E_{10})} \\ \frac{+f_2^- f_6^- f_7^- f_{11}^- f_{12}^- f_8^+ - f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^- - f_4^- f_6^- f_7^- f_{11}^- f_{12}^- f_8^+ + f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_8)(-E_{11}-E_{12}+E_5+E_8)(-E_6-E_{11}-E_{12}+E_7+E_8+E_{10})} \end{pmatrix}$$

$$+\frac{1}{3}\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,2\}\{7,8|V|3,10\}\{9,10|V|9,6\}\{11,12|V|11,8\}f_1^-f_9^-f_{11}^-\left(\begin{array}{r}
\frac{+f_2^-f_3^-f_5^-f_6^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_3+E_5+E_8)(-E_6+E_{10})(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^-f_5^-f_6^-f_8^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_8+E_2+E_3)(-E_6+E_{10})(-E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_7^-f_5^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_3+E_5+E_8)(-E_2-E_7+E_5+E_{10})(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^-f_5^-f_7^-f_8^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_8+E_2+E_3)(-E_2-E_7+E_5+E_{10})(-E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_6^-f_7^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_6+E_{10})(-E_3-E_6+E_7+E_{12})}\\
\frac{+f_2^-f_7^-f_8^-f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_6+E_{10})(-E_8+E_{12})}\\
\frac{+f_2^-f_5^-f_6^-f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_6+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_{12}+E_8)}\\
\frac{+f_2^-f_7^-f_{12}^-f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_6+E_{10})(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)}\\
\frac{+f_2^-f_5^-f_7^-f_{12}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_7+E_5+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_{12}+E_8)}\\
\frac{+f_3^-f_4^-f_5^-f_6^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_3-E_4+E_5+E_8)(-E_6+E_{10})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_4^-f_5^-f_6^-f_8^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_8+E_3+E_4)(-E_6+E_{10})(-E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_5^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_4+E_5+E_8)(-E_4-E_7+E_5+E_{10})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_4^-f_5^-f_7^-f_8^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_8+E_3+E_4)(-E_4-E_7+E_5+E_{10})(-E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_7^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_6+E_7+E_8)(-E_6+E_{10})(-E_3-E_6+E_7+E_{12})}\\
\frac{+f_4^-f_7^-f_8^-f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_3+E_6)(-E_6+E_{10})(-E_8+E_{12})}\\
\frac{+f_4^-f_5^-f_6^-f_{12}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_6+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)}\\
\frac{+f_4^-f_7^-f_{12}^-f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_6+E_{10})(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)}\\
\frac{+f_4^-f_5^-f_7^-f_{12}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_4-E_7+E_5+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)}\\
\frac{+f_2^-f_3^-f_6^-f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_3-E_6+E_7+E_8)(-E_6+E_{10})(-E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_7^-f_8^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_3+E_{10})(-E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_5^-f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_{10}+E_6)(-E_5-E_{10}+E_2+E_7)(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^-f_5^-f_8^-f_{10}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_{10}+E_6)(-E_5-E_{10}+E_2+E_7)(-E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_{10}^-f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_{10}+E_6)(-E_3-E_{10}+E_7+E_8)(-E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_6+E_7+E_8)(-E_6+E_{10})(-E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_8^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_3+E_{10})(-E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_5^-f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_{10}+E_6)(-E_5-E_{10}+E_4+E_7)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_4^-f_5^-f_8^-f_{10}^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_{10}+E_6)(-E_5-E_{10}+E_4+E_7)(-E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_{10}^-f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_{10}+E_6)(-E_3-E_{10}+E_7+E_8)(-E_8+E_{12})}\\
\frac{+f_2^-f_7^-f_8^-f_{10}^+}{(-E_2+E_4)(-E_{10}+E_6)(-E_2-E_7+E_5+E_{10})(-E_7-E_8+E_3+E_{10})(-E_8+E_{12})}\\
\frac{+f_2^-f_3^-f_7^-f_{10}^-}{(-E_2+E_4)(-E_{10}+E_6)(-E_2-E_7+E_5+E_{10})(-E_3-E_{10}+E_7+E_8)(-E_3-E_{10}+E_7+E_{12})}\\
\frac{+f_2^-f_5^-f_{10}^-f_{12}^-}{(-E_2+E_4)(-E_{10}+E_6)(-E_5-E_{10}+E_2+E_7)(-E_5-E_{12}+E_2+E_3)(-E_{12}+E_8)}\\
\frac{+f_2^-f_7^-f_{12}^-f_{10}^+}{(-E_2+E_4)(-E_{10}+E_6)(-E_2-E_7+E_5+E_{10})(-E_{12}+E_8)(-E_7-E_{12}+E_3+E_{10})}\\
\frac{+f_4^-f_7^-f_8^-f_{10}^+}{(-E_4+E_2)(-E_{10}+E_6)(-E_4-E_7+E_5+E_{10})(-E_7-E_8+E_3+E_{10})(-E_8+E_{12})}\\
\frac{+f_3^-f_4^-f_7^-f_{10}^-}{(-E_4+E_2)(-E_{10}+E_6)(-E_4-E_7+E_5+E_{10})(-E_3-E_{10}+E_7+E_8)(-E_3-E_{10}+E_7+E_{12})}\\
\frac{+f_4^-f_5^-f_{10}^-f_{12}^-}{(-E_4+E_2)(-E_{10}+E_6)(-E_5-E_{10}+E_4+E_7)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)}\\
\frac{+f_4^-f_7^-f_{12}^-f_{10}^+}{(-E_4+E_2)(-E_{10}+E_6)(-E_4-E_7+E_5+E_{10})(-E_{12}+E_8)(-E_7-E_{12}+E_3+E_{10})}\\
\frac{+f_2^-f_3^-f_6^-f_{12}^+}{(-E_2+E_4)(-E_6+E_{10})(-E_2-E_3+E_5+E_{12})(-E_3-E_6+E_7+E_{12})(-E_{12}+E_8)}\\
\frac{+f_2^-f_3^-f_{10}^-f_{12}^+}{(-E_2+E_4)(-E_{10}+E_6)(-E_2-E_3+E_5+E_{12})(-E_{12}+E_8)(-E_3-E_{10}+E_7+E_{12})}\\
\frac{+f_3^-f_4^-f_6^-f_{12}^+}{(-E_4+E_2)(-E_6+E_{10})(-E_3-E_4+E_5+E_{12})(-E_3-E_6+E_7+E_{12})(-E_{12}+E_8)}\\
\frac{+f_3^-f_4^-f_{10}^-f_{12}^+}{(-E_4+E_2)(-E_{10}+E_6)(-E_3-E_4+E_5+E_{12})(-E_{12}+E_8)(-E_3-E_{10}+E_7+E_{12})}\\
\frac{+f_2^-f_3^-f_7^-f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_{12})(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_3+E_{10})}\\
\frac{+f_3^-f_4^-f_7^-f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_3+E_{10})}\\
\frac{+f_3^-f_5^-f_6^-f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_3-E_6+E_7+E_8)(-E_6+E_{10})(-E_3-E_6+E_7+E_{12})}\\
\frac{+f_5^-f_6^-f_8^-f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_7-E_8+E_3+E_6)(-E_6+E_{10})(-E_8+E_{12})}\\
\frac{+f_5^-f_6^-f_{12}^-f_7^+}{(-E_5-E_6+E_2+E_7)(-E_5-E_6+E_4+E_7)(-E_6+E_{10})(-E_7-E_{12}+E_3+E_6)(-E_{12}+E_8)}\\
\frac{+f_5^-f_6^-f_8^-f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_3-E_6+E_7+E_8)(-E_6+E_{10})(-E_8+E_{12})}\\
\frac{+f_5^-f_7^-f_8^-f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_3+E_6)(-E_7-E_8+E_3+E_{10})(-E_8+E_{12})}\\
\frac{+f_5^-f_8^-f_{10}^-f_3^+}{(-E_5-E_8+E_2+E_3)(-E_5-E_8+E_3+E_4)(-E_{10}+E_6)(-E_3-E_{10}+E_7+E_8)(-E_8+E_{12})}
\end{array}\right.$$

$$+\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,2\}\{5,6|V|3,8\}\{7,8|V|9,6\}\{9,10|V|7,12\}\{11,12|V|11,10\}f_1^- f_{11}^- \Bigg(\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- -f_2^- f_3^- f_6^- f_9^- f_{10}^- +f_3^- f_4^- f_7^- f_8^- f_{10}^- -f_3^- f_4^- f_6^- f_7^- f_{10}^- -f_2^- f_5^- f_6^- f_7^- f_{10}^- +f_2^- f_5^- f_6^- f_9^- f_{10}^- +f_4^- f_5^- f_6^- f_7^- f_{10}^- +f_2^- f_3^- f_6^- f_7^- f_{10}^- -f_2^- f_3^- f_7^- f_8^- f_{10}^- -f_2^- f_3^- f_6^- f_7^- f_{12}^- +f_2^- f_3^- f_7^- f_8^- f_{12}^- -f_2^- f_5^- f_6^- f_9^- f_{12}^- +f_2^- f_5^- f_8^- f_9^- f_{12}^- -f_2^- f_5^- f_7^- f_8^- f_{12}^- +f_3^- f_4^- f_6^- f_7^- f_{12}^- -f_4^- f_5^- f_8^- f_9^- f_{12}^- -f_3^- f_4^- f_6^- f_9^- f_{12}^- +f_2^- f_5^- f_6^- f_7^- f_{12}^- -f_4^- f_5^- f_6^- f_7^- f_{12}^- -f_2^- f_3^- f_8^- f_9^- f_{12}^- +f_4^- f_5^- f_7^- f_8^-}{(-E_2+E_4)(-E_5+E_3)(-E_8+E_6)(-E_7+E_9)(-E_{10}+E_{12})}$$

$$+\{1,2|V|1,4\}\{3,4|V|5,2\}\{5,6|V|3,8\}\{7,8|V|9,12\}\{9,10|V|11,6\}\{11,12|V|7,10\}f_1^- \left(\begin{array}{r}
\frac{+f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- +f_2^- f_5^- f_6^- f_7^- f_9^- f_{10}^- -f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^- -f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^- +f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^- +f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- -f_4^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- -f_2^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^- +f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- -f_4^- f_5^- f_6^- f_7^- f_9^- f_{10}^- +f_4^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ -f_2^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ +f_2^- f_3^- f_6^- f_7^- f_{11}^- f_9^+ -f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- -f_3^- f_4^- f_6^- f_7^- f_{11}^- f_9^+ +f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_5+E_3)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_6+E_7)} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_{12}^- f_{10}^+ +f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ -f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ -f_2^- f_3^- f_6^- f_{11}^- f_{12}^- f_{10}^+ +f_2^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- -f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- -f_2^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- +f_4^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_3+E_5)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- -f_4^- f_5^- f_7^- f_8^- f_9^- f_{10}^- -f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- -f_4^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- +f_2^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- +f_3^- f_4^- f_8^- f_9^- f_{11}^- f_{12}^- -f_2^- f_3^- f_8^- f_9^- f_{11}^- f_{12}^- +f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^- -f_2^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- -f_2^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ +f_4^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ +f_4^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+ +f_2^- f_3^- f_8^- f_9^- f_{10}^- f_{12}^- +f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+ -f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_3+E_5)(-E_8+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ +f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_{10}^+ -f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_{10}^+ +f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- -f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- +f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- -f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ -f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_4+E_2)(-E_5+E_3)(-E_8+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+ +f_2^- f_3^- f_6^- f_7^- f_{10}^- f_{12}^+ -f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{12}^+ -f_2^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+ -f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^- +f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^- -f_4^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- +f_2^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_5+E_3)(-E_6+E_8)(-E_6-E_7+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+ -f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ +f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+ -f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+ +f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- -f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- +f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_3+E_5)(-E_8+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+ +f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_{11}^+ +f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+ -f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ +f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ -f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_{11}^+ -f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+}{(-E_2+E_4)(-E_3+E_5)(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_4^- f_5^- f_9^- f_{11}^- f_{12}^- f_7^+ -f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_7^+ +f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_7^+ -f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_7^+ +f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_7^+ -f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_7^+ +f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_7^+ -f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_7^+}{(-E_4+E_2)(-E_5+E_3)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_7+E_{10})}
\end{array} \right)$$

$$+\{1,2|V|1,4\}\{3,4|V|5,8\}\{5,6|V|7,12\}\{7,8|V|9,6\}\{9,10|V|11,2\}\{11,12|V|3,10\}f_1^-\left(\begin{array}{r}
\frac{+f_2^- f_3^- f_6^- f_7^- f_{10}^- f_5^+ - f_2^- f_3^- f_6^- f_7^- f_{11}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_7+E_5+E_6+E_9)(-E_3-E_7-E_{10}+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^- f_3^- f_7^- f_{11}^- f_5^+ f_9^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- + f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- - f_2^- f_3^- f_7^- f_{10}^- f_5^+ f_9^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_7+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_9+E_{12})}\\
\frac{+f_2^- f_5^- f_6^- f_7^- f_8^- f_{10}^- - f_2^- f_5^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_6+E_9)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_{10}^- - f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_2-E_3-E_6+E_7+E_8+E_{12})}\\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+ - f_2^- f_3^- f_6^- f_9^- f_{11}^- f_8^+ + f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_9^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_9+E_{12})}\\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ - f_2^- f_5^- f_6^- f_8^- f_9^- f_{11}^- + f_2^- f_5^- f_6^- f_8^- f_9^- f_{10}^- - f_2^- f_5^- f_7^- f_8^- f_{10}^- f_9^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_8+E_9+E_{12})}\\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{10}^+ - f_2^- f_3^- f_7^- f_{10}^- f_5^+ f_{11}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6-E_{11}+E_3+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_{10}^+ - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+ - f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}\\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_7^- f_{10}^- f_{12}^- f_5^+ - f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^+ + f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6+E_7+E_{12})(-E_2-E_3+E_9+E_{12})(-E_3-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- - f_2^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^+ + f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+ - f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_5^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_{12}+E_5+E_6)(-E_5-E_8+E_9+E_{12})(-E_5-E_8-E_{10}+E_2+E_{11}+E_{12})}\\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_3^+ + f_2^- f_3^- f_6^- f_{10}^- f_8^+ f_{12}^+ - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^- - f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8-E_{12}+E_2+E_3+E_6)(-E_2-E_3+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_{10})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^- f_5^+ - f_3^- f_4^- f_6^- f_7^- f_{11}^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_3-E_7-E_{10}+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_5^+ f_9^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^- + f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- - f_3^- f_4^- f_7^- f_{10}^- f_5^+ f_9^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_4^- f_5^- f_6^- f_7^- f_8^- f_{10}^- - f_4^- f_5^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_6+E_9)(-E_7-E_8-E_{10}+E_4+E_6+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- - f_3^- f_4^- f_6^- f_7^- f_8^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_6+E_9)(-E_4-E_6-E_{11}+E_7+E_8+E_{10})(-E_3-E_4-E_6+E_7+E_8+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_9^- f_{11}^- f_8^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+ + f_3^- f_4^- f_7^- f_8^- f_{10}^- f_9^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_6-E_9+E_7+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_4^- f_5^- f_6^- f_8^- f_9^- f_{11}^- + f_4^- f_5^- f_7^- f_8^- f_{10}^- f_9^+ - f_4^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ - f_4^- f_5^- f_6^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_6-E_9+E_7+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_5-E_8+E_9+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{10}^+ - f_3^- f_4^- f_7^- f_{10}^- f_5^+ f_{11}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_6-E_{11}+E_3+E_7+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_{10}^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_4-E_6-E_{11}+E_7+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})}\\
\frac{+f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+ - f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^+}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_4-E_6-E_{11}+E_7+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_5-E_8-E_{10}+E_4+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_5^- f_6^- f_{10}^- f_{12}^+ + f_3^- f_4^- f_7^- f_{10}^- f_{12}^- f_5^+ - f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_6+E_7+E_{12})(-E_3-E_4+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_{10})}\\
\frac{+f_4^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^+ - f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- - f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+ + f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_5^+}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_5-E_8+E_9+E_{12})(-E_5-E_8-E_{10}+E_4+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_{10}^- f_8^+ f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^- - f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_{12}^+ + f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_3^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_3-E_4+E_9+E_{12})(-E_3-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{10}^- f_7^+ - f_2^- f_5^- f_6^- f_9^- f_{11}^- f_7^+}{(-E_2+E_4)(-E_5-E_6-E_9+E_2+E_3+E_7)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^- - f_2^- f_3^- f_6^- f_7^- f_9^- f_{11}^-}{(-E_2+E_4)(-E_2-E_3-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_3+E_9+E_{12})}\\
\frac{+f_4^- f_5^- f_6^- f_9^- f_{10}^- f_7^+ - f_4^- f_5^- f_6^- f_9^- f_{11}^- f_7^+}{(-E_4+E_2)(-E_5-E_6-E_9+E_3+E_4+E_7)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- - f_3^- f_4^- f_6^- f_7^- f_9^- f_{11}^-}{(-E_4+E_2)(-E_3-E_4-E_7+E_5+E_6+E_9)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_4+E_9+E_{12})}\\
\frac{+f_2^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_7-E_8-E_{12}+E_2+E_3+E_6)}\\
\frac{+f_4^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- - f_4^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_4-E_6-E_{11}+E_7+E_8+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_7-E_8-E_{12}+E_3+E_4+E_6)}\\
\frac{+f_2^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- - f_2^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_7-E_{12}+E_5+E_6)(-E_9-E_{12}+E_2+E_3)}\\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_9^+ - f_2^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ - f_2^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^- + f_2^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_2+E_3)(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f_4^- f_6^- f_7^- f_9^- f_{11}^- f_{12}^- - f_4^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_6-E_9+E_7+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_9-E_{12}+E_3+E_4)}\\
\frac{+f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_9^+ - f_4^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^- + f_4^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_7^+ f_{10}^+}{(-E_2+E_4)(-E_5-E_6-E_{11}+E_3+E_7+E_{10})(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_3-E_7-E_{10}+E_5+E_6+E_{11})(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})}\\
\frac{+f_4^- f_5^- f_6^- f_{11}^- f_7^+ f_{10}^+}{(-E_4+E_2)(-E_5-E_6-E_{11}+E_3+E_7+E_{10})(-E_4-E_6-E_{11}+E_7+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_3-E_7-E_{10}+E_5+E_6+E_{11})(-E_4-E_6-E_{11}+E_7+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_3-E_{10}+E_{11}+E_{12})}\\
\frac{+f_2^- f_6^- f_7^- f_{11}^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_3+E_{10})}\\
\frac{+f_2^- f_6^- f_{11}^- f_{12}^- f_8^+ f_{10}^+ - f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_{10})(-E_2-E_{11}-E_{12}+E_5+E_8+E_{10})}\\
\frac{+f_4^- f_6^- f_7^- f_{11}^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_4-E_6-E_{11}+E_7+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_3+E_{10})}\\
\frac{+f_4^- f_6^- f_{11}^- f_{12}^- f_8^+ f_{10}^+ - f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_4-E_6-E_{11}+E_7+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_{10})(-E_4-E_{11}-E_{12}+E_5+E_8+E_{10})}\\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- + f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_5^+ - f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_2^- f_7^- f_9^- f_{11}^- f_{12}^- f_5^+}{(-E_2+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_9-E_{12}+E_2+E_3)(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_7^- f_{11}^- f_{12}^- f_5^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_6+E_7+E_{12})(-E_{11}-E_{12}+E_3+E_{10})(-E_2-E_{11}-E_{12}+E_5+E_8+E_{10})}\\
\frac{+f_4^- f_7^- f_9^- f_{11}^- f_{12}^- f_5^+ - f_4^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- + f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_5^+}{(-E_4+E_2)(-E_4-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_9-E_{12}+E_3+E_4)(-E_9-E_{12}+E_5+E_8)}\\
\frac{+f_4^- f_7^- f_{11}^- f_{12}^- f_5^+ f_{10}^+ - f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_4-E_{11}+E_9+E_{10})(-E_7-E_{12}+E_5+E_6)(-E_{11}-E_{12}+E_3+E_{10})(-E_4-E_{11}-E_{12}+E_5+E_8+E_{10})}\\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^+ - f_2^- f_3^- f_6^- f_7^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_7-E_{12}+E_5+E_6)(-E_2-E_3-E_6+E_7+E_8+E_{12})(-E_2-E_3+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_{10})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_7-E_{12}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{12})(-E_3-E_4+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_{10})}
\end{array}\right)$$

$$
+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,2\}\{7,8|V|3,10\}\{9,10|V|11,8\}\{11,12|V|9,6\}f_1^- \left(\begin{array}{r}
\frac{+f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- - f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- - f_2^- f_3^- f_5^- f_6^- f_8^- f_9^- + f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6-E_8+E_2+E_3+E_{10})(-E_2-E_3-E_{11}+E_5+E_6+E_9)(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^- f_5^- f_6^- f_8^- f_9^- f_{10}^+ - f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6-E_8+E_2+E_3+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})}\\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ + f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+ - f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_5^+ - f_2^- f_3^- f_7^- f_8^- f_9^- f_5^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_3-E_{10}+E_7+E_8)(-E_7-E_9+E_3+E_{11})(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_9^- - f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^- + f_2^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- - f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_3+E_{10})(-E_7-E_9+E_3+E_{11})(-E_3-E_6+E_7+E_{12})}\\
\frac{+f_2^- f_6^- f_7^- f_8^- f_9^- f_{10}^+ - f_2^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_3+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})}\\
\frac{+f_2^- f_7^- f_8^- f_9^- f_5^+ f_{10}^+ - f_2^- f_7^- f_8^- f_{11}^- f_5^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_8+E_3+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_7-E_8+E_5+E_{10}+E_{12})}\\
\frac{+f_2^- f_5^- f_6^- f_8^- f_9^- f_{11}^+ - f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_6-E_9+E_2+E_3+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_2^- f_6^- f_7^- f_8^- f_9^- f_{11}^+ - f_2^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_9+E_3+E_{11})(-E_8-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_5^+ f_{11}^+ - f_2^- f_7^- f_8^- f_9^- f_5^+ f_{11}^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_9+E_3+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_7-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- + f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_5^- f_6^- f_8^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_2+E_7)(-E_5-E_{12}+E_2+E_3)(-E_6-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)}\\
\frac{+f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- + f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_5^- f_7^- f_8^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_5-E_{12}+E_2+E_3)(-E_5-E_{10}-E_{12}+E_2+E_7+E_8)(-E_2-E_7-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_2^- f_7^- f_8^- f_9^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_2-E_7+E_5+E_6)(-E_7-E_{12}+E_3+E_6)(-E_{10}-E_{12}+E_6+E_8)(-E_{11}-E_{12}+E_6+E_9)}\\
\frac{+f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- - f_3^- f_4^- f_5^- f_6^- f_{10}^- f_{11}^- - f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- + f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_6-E_8+E_3+E_4+E_{10})(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+ - f_4^- f_5^- f_6^- f_8^- f_9^- f_{10}^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_6-E_8+E_3+E_4+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_6-E_8+E_{10}+E_{12})}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_5^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_5^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_5^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_3+E_{10})(-E_3-E_{11}+E_7+E_9)(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- + f_3^- f_4^- f_6^- f_7^- f_8^- f_9^- - f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- - f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_3-E_{10}+E_7+E_8)(-E_3-E_{11}+E_7+E_9)(-E_3-E_6+E_7+E_{12})}\\
\frac{+f_4^- f_6^- f_7^- f_8^- f_9^- f_{10}^+ - f_4^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_3+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})}\\
\frac{+f_4^- f_7^- f_8^- f_{11}^- f_5^+ f_{10}^+ - f_4^- f_7^- f_8^- f_9^- f_5^+ f_{10}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_8+E_3+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_4-E_7-E_8+E_5+E_{10}+E_{12})}\\
\frac{+f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+ - f_4^- f_5^- f_6^- f_8^- f_9^- f_{11}^+}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_6-E_9+E_3+E_4+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_4^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_4^- f_6^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_9+E_3+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_5^+ f_{11}^+ - f_4^- f_7^- f_8^- f_9^- f_5^+ f_{11}^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_9+E_3+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_4-E_7-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- + f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- - f_4^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- - f_4^- f_5^- f_6^- f_8^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_5-E_6+E_4+E_7)(-E_5-E_{12}+E_3+E_4)(-E_{10}-E_{12}+E_6+E_8)(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- + f_4^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_4^- f_5^- f_7^- f_8^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_5-E_{12}+E_3+E_4)(-E_5-E_{10}-E_{12}+E_4+E_7+E_8)(-E_4-E_7-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ + f_4^- f_7^- f_8^- f_9^- f_{12}^- f_6^+ - f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_4-E_7+E_5+E_6)(-E_7-E_{12}+E_3+E_6)(-E_{10}-E_{12}+E_6+E_8)(-E_{11}-E_{12}+E_6+E_9)}\\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_5^+ f_8^+ - f_2^- f_3^- f_{10}^- f_{11}^- f_5^+ f_8^+}{(-E_2+E_4)(-E_2-E_3-E_{10}+E_5+E_6+E_8)(-E_3-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ - f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_8^+}{(-E_2+E_4)(-E_2-E_3-E_{10}+E_5+E_6+E_8)(-E_3-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})}\\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_5^+ f_8^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_5^+ f_8^+}{(-E_4+E_2)(-E_3-E_4-E_{10}+E_5+E_6+E_8)(-E_3-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_8^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_3-E_4-E_{10}+E_5+E_6+E_8)(-E_3-E_{10}+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_6-E_8+E_{10}+E_{12})}\\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- + f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- - f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_3^- f_7^- f_8^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_3-E_{10}+E_7+E_8)(-E_7-E_9+E_3+E_{11})(-E_2-E_3+E_5+E_{12})(-E_7-E_{12}+E_3+E_6)}\\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_7-E_8+E_3+E_{10})(-E_3-E_{11}+E_7+E_9)(-E_3-E_4+E_5+E_{12})(-E_7-E_{12}+E_3+E_6)}\\
\frac{+f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_3-E_{10}+E_7+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})(-E_{10}-E_{12}+E_6+E_8)}\\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_3-E_{10}+E_7+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_5+E_{12})(-E_{10}-E_{12}+E_6+E_8)}\\
\frac{+f_2^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_7^- f_8^- f_9^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_7-E_8+E_3+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_{10}-E_{12}+E_6+E_8)(-E_2-E_7-E_8+E_5+E_{10}+E_{12})}\\
\frac{+f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_4^- f_7^- f_8^- f_9^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_7-E_8+E_3+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_{10}-E_{12}+E_6+E_8)(-E_4-E_7-E_8+E_5+E_{10}+E_{12})}\\
\frac{+f_2^- f_3^- f_{10}^- f_{11}^- f_5^+ f_9^+ - f_2^- f_3^- f_8^- f_{11}^- f_5^+ f_9^+}{(-E_2+E_4)(-E_2-E_3-E_{11}+E_5+E_6+E_9)(-E_3-E_{11}+E_7+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_3+E_5+E_{12})}\\
\frac{+f_2^- f_3^- f_6^- f_8^- f_{11}^- f_9^+ - f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_2-E_3-E_{11}+E_5+E_6+E_9)(-E_3-E_{11}+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_3^- f_4^- f_8^- f_{11}^- f_5^+ f_9^+ - f_3^- f_4^- f_{10}^- f_{11}^- f_5^+ f_9^+}{(-E_4+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_{11}+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_9^+ - f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_9^+}{(-E_4+E_2)(-E_3-E_4-E_{11}+E_5+E_6+E_9)(-E_3-E_{11}+E_7+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_6-E_9+E_{11}+E_{12})}\\
\frac{+f_2^- f_3^- f_{10}^- f_{11}^- f_{12}^- f_9^+ - f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_9^+}{(-E_2+E_4)(-E_3-E_{11}+E_7+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_3+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)}\\
\frac{+f_3^- f_4^- f_{10}^- f_{11}^- f_{12}^- f_9^+ - f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_9^+}{(-E_4+E_2)(-E_3-E_{11}+E_7+E_9)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_6+E_9)}\\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_2^- f_7^- f_8^- f_9^- f_{12}^- f_{11}^+}{(-E_2+E_4)(-E_7-E_9+E_3+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_6+E_9)(-E_2-E_7-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_4^- f_7^- f_8^- f_9^- f_{12}^- f_{11}^+}{(-E_4+E_2)(-E_7-E_9+E_3+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_6+E_9)(-E_4-E_7-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_{10}-E_{12}+E_6+E_8)(-E_5-E_{10}-E_{12}+E_2+E_7+E_8)}\\
\frac{+f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_9^+ - f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_9^+}{(-E_2+E_4)(-E_9-E_{10}+E_8+E_{11})(-E_5-E_{12}+E_2+E_3)(-E_{11}-E_{12}+E_6+E_9)(-E_5-E_{11}-E_{12}+E_2+E_7+E_9)}\\
\frac{+f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{10}-E_{12}+E_6+E_8)(-E_5-E_{10}-E_{12}+E_4+E_7+E_8)}\\
\frac{+f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_9^+ - f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_9^+}{(-E_4+E_2)(-E_8-E_{11}+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_6+E_9)(-E_5-E_{11}-E_{12}+E_4+E_7+E_9)}\\
\frac{+f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{12}^+ - f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_{12}^+ + f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{12})(-E_3-E_6+E_7+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)}\\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_{12}^+ + f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_6+E_7+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_6+E_9)}
\end{array}\right)
$$

$$+\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|9,6\}\{9,10|V|11,2\}\{11,12|V|3,8\}f_1^- \left(\begin{gathered}
\frac{+f_2^- f_5^- f_6^- f_7^- f_8^- f_{12}^- - f_2^- f_3^- f_5^- f_6^- f_7^- f_8^-}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_2+E_{11})(-E_5-E_{12}+E_2+E_3)} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_8^- f_{12}^- - f_3^- f_4^- f_5^- f_6^- f_7^- f_8^-}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_4+E_{11})(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{12}^- f_7^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_7^+}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_5-E_{12}+E_2+E_3)} \\
\frac{+f_4^- f_5^- f_6^- f_9^- f_{12}^- f_7^+ - f_3^- f_4^- f_5^- f_6^- f_9^- f_7^+}{(-E_4+E_2)(-E_6-E_9+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_4+E_7+E_{11})(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ - f_2^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_6+E_{11})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_4+E_6+E_{11})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_2^- f_3^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ - f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_6-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{12}^- f_9^+ + f_2^- f_3^- f_5^- f_6^- f_8^- f_9^- - f_2^- f_5^- f_6^- f_8^- f_9^- f_{12}^- - f_2^- f_3^- f_5^- f_7^- f_8^- f_9^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_2+E_{11})(-E_5-E_{12}+E_2+E_3)} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_9^+ - f_4^- f_5^- f_7^- f_8^- f_{12}^- f_9^+ - f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- + f_4^- f_5^- f_6^- f_8^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_2^- f_3^- f_6^- f_9^- f_{10}^- f_8^+ + f_2^- f_3^- f_7^- f_9^- f_{10}^- f_8^+}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{10}-E_{12}+E_2+E_3+E_8)} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_8^+ + f_3^- f_4^- f_6^- f_9^- f_{10}^- f_8^+ - f_4^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_9-E_{10}-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{11}^- f_8^+ - f_2^- f_6^- f_7^- f_{11}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_2-E_{11}+E_5+E_8)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_3-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{11}^- f_8^+ + f_2^- f_7^- f_{11}^- f_{12}^- f_8^+ f_9^+ - f_2^- f_3^- f_7^- f_{11}^- f_8^+ f_9^+ - f_2^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_2-E_{11}+E_5+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_8+E_{11}+E_{12})} \\
\frac{+f_4^- f_6^- f_7^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_4^- f_6^- f_7^- f_{11}^- f_8^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_4-E_{11}+E_5+E_8)(-E_4-E_6-E_{11}+E_7+E_8+E_{10})(-E_{11}-E_{12}+E_3+E_8)} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_8^+ f_9^+ - f_4^- f_7^- f_{11}^- f_{12}^- f_8^+ f_9^+ + f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_4^- f_6^- f_9^- f_{11}^- f_8^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_4-E_{11}+E_5+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_7^- f_{11}^- f_{12}^- f_6^+ f_9^+ - f_2^- f_3^- f_7^- f_{11}^- f_6^+ f_9^+}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_{11}-E_{12}+E_3+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_6^+ f_9^+ - f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ f_9^+}{(-E_4+E_2)(-E_6-E_9+E_7+E_8)(-E_4-E_7-E_{11}+E_5+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_2-E_3+E_5+E_{12})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})(-E_3-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_7^+ f_{12}^+}{(-E_2+E_4)(-E_6-E_9+E_7+E_8)(-E_2-E_3+E_5+E_{12})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})(-E_3-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_9^+ f_{12}^+ - f_2^- f_3^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_2+E_4)(-E_7-E_8+E_6+E_9)(-E_2-E_3+E_5+E_{12})(-E_2-E_3-E_8+E_9+E_{10}+E_{12})(-E_3-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_9^- f_7^+ f_{12}^+}{(-E_4+E_2)(-E_6-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_9^+ f_{12}^+ - f_3^- f_4^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_4+E_2)(-E_7-E_8+E_6+E_9)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_8+E_9+E_{10}+E_{12})(-E_3-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_8^- f_{10}^+ + f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- - f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- - f_2^- f_5^- f_6^- f_8^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_2+E_{11})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_{12}^- f_{10}^+ - f_4^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- - f_3^- f_4^- f_5^- f_6^- f_8^- f_{10}^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_5-E_8+E_9+E_{10})(-E_5-E_8+E_4+E_{11})(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- + f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- - f_2^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- - f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_{12}+E_2+E_3)} \\
\frac{+f_4^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^- - f_3^- f_4^- f_5^- f_7^- f_9^- f_{10}^- + f_3^- f_4^- f_5^- f_6^- f_9^- f_{10}^- - f_4^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_5+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- - f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^-}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_2-E_{11}+E_5+E_8)(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_5-E_{12}+E_2+E_3)} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- - f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- + f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_2-E_{11}+E_5+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- - f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^-}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_4-E_{11}+E_5+E_8)(-E_4-E_7-E_{11}+E_5+E_6+E_9)(-E_5-E_{12}+E_3+E_4)} \\
\frac{+f_3^- f_4^- f_5^- f_7^- f_{10}^- f_{11}^- - f_4^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- + f_4^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_3^- f_4^- f_5^- f_6^- f_{11}^- f_{10}^+}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_4-E_{11}+E_5+E_8)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)} \\
\frac{+f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_4-E_6-E_{11}+E_7+E_8+E_{10})(-E_4-E_{11}+E_9+E_{10})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- + f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- - f_2^- f_3^- f_5^- f_7^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_2-E_{11}+E_5+E_8)(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_{11}^- f_8^+ f_{10}^+ - f_2^- f_6^- f_{11}^- f_{12}^- f_8^+ f_{10}^+ - f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_8^+ + f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_2-E_{11}+E_5+E_8)(-E_2-E_6-E_{11}+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{11}^- - f_3^- f_4^- f_5^- f_7^- f_{11}^- f_9^+ + f_4^- f_5^- f_7^- f_{11}^- f_{12}^- f_9^+ - f_4^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^-}{(-E_4+E_2)(-E_4-E_{11}+E_5+E_8)(-E_5-E_6-E_9+E_4+E_7+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_8^+ + f_4^- f_6^- f_{11}^- f_{12}^- f_8^+ f_{10}^+ - f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_4^- f_6^- f_{11}^- f_8^+ f_{10}^+}{(-E_4+E_2)(-E_4-E_{11}+E_5+E_8)(-E_7-E_8-E_{10}+E_4+E_6+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_3-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_3+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)(-E_9-E_{10}-E_{12}+E_2+E_3+E_8)} \\
\frac{+f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^+ - f_2^- f_3^- f_6^- f_{11}^- f_{10}^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)(-E_{11}-E_{12}+E_3+E_8)} \\
\frac{+f_2^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^+ - f_2^- f_3^- f_7^- f_{11}^- f_9^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3+E_5+E_{12})(-E_{11}-E_{12}+E_3+E_8)(-E_3-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_9-E_{10}-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_6^- f_{11}^- f_{10}^+ f_{12}^+}{(-E_4+E_2)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_{11}-E_{12}+E_3+E_8)} \\
\frac{+f_3^- f_4^- f_7^- f_{11}^- f_9^+ f_{12}^+ - f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^+}{(-E_4+E_2)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_3+E_8)(-E_7-E_{11}-E_{12}+E_3+E_6+E_9)} \\
\frac{+f_2^- f_3^- f_6^- f_8^- f_{10}^+ f_{12}^+ - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{12})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})(-E_2-E_3-E_8+E_9+E_{10}+E_{12})(-E_3-E_8+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{11}^- f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_{12})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})(-E_{11}-E_{12}+E_3+E_8)(-E_7-E_{11}-E_{12}+E_3+E_6+E_9)} \\
\frac{+f_3^- f_4^- f_6^- f_8^- f_{10}^+ f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_4-E_8+E_9+E_{10}+E_{12})(-E_3-E_8+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_{11}-E_{12}+E_3+E_8)(-E_7-E_{11}-E_{12}+E_3+E_6+E_9)}
\end{gathered} \right.$$

$$
\begin{gathered}
+\frac{1}{2}\{1,2|V|1,4\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|9,2\}\{9,10|V|3,6\}\{11,12|V|11,8\}f_1^- f_{11}^- \Bigg(\\
\frac{+f_2^- f_3^- f_5^- f_6^- f_7^- - f_2^- f_3^- f_7^- f_{10}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_3-E_7+E_5+E_9)(-E_5-E_6+E_7+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_9^- - f_2^- f_3^- f_5^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_9+E_3+E_7)(-E_3-E_6+E_9+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- - f_2^- f_5^- f_6^- f_7^- f_8^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^- - f_2^- f_3^- f_6^- f_7^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_8^+ - f_2^- f_3^- f_6^- f_9^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_6)(-E_8+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_9^- - f_2^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_2-E_9+E_7+E_8)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_6^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_2-E_3+E_5+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_8^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_3-E_6+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- - f_3^- f_4^- f_7^- f_{10}^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_7+E_5+E_9)(-E_5-E_6+E_7+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- - f_3^- f_4^- f_5^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_9+E_3+E_7)(-E_3-E_6+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_8^- - f_4^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_4+E_9)(-E_5-E_6+E_7+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- - f_3^- f_4^- f_6^- f_7^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_4+E_9)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_8^+ - f_3^- f_4^- f_6^- f_9^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_4-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_6)(-E_8+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_9^- - f_4^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_4-E_9+E_7+E_8)(-E_5-E_6-E_8+E_4+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_4^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_4+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_8^+ f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_6+E_9+E_{10})(-E_8+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_7^+ - f_2^- f_5^- f_6^- f_9^- f_7^+}{(-E_2+E_4)(-E_5-E_9+E_3+E_7)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_2-E_9+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- - f_2^- f_3^- f_6^- f_7^- f_9^+}{(-E_2+E_4)(-E_3-E_7+E_5+E_9)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_6)(-E_2-E_9+E_7+E_{12})} \\
\frac{+f_4^- f_5^- f_9^- f_{10}^- f_7^+ - f_4^- f_5^- f_6^- f_9^- f_7^+}{(-E_4+E_2)(-E_5-E_9+E_3+E_7)(-E_4-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_4-E_9+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- - f_3^- f_4^- f_6^- f_7^- f_9^+}{(-E_4+E_2)(-E_3-E_7+E_5+E_9)(-E_4-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_6)(-E_4-E_9+E_7+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_8+E_{12})} \\
\frac{+f_2^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_3+E_6)(-E_2-E_9+E_7+E_{12})} \\
\frac{+f_2^- f_9^- f_{10}^- f_6^+ f_8^+}{(-E_2+E_4)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_6)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_8+E_{12})} \\
\frac{+f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_7-E_8+E_4+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_8+E_{12})} \\
\frac{+f_4^- f_7^- f_9^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_3+E_6)(-E_4-E_9+E_7+E_{12})} \\
\frac{+f_4^- f_9^- f_{10}^- f_6^+ f_8^+}{(-E_4+E_2)(-E_4-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_6)(-E_4-E_9-E_{10}+E_5+E_6+E_8)(-E_8+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{10}^-}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_3-E_6+E_9+E_{10})(-E_2-E_3-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{10}^-}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_6+E_9+E_{10})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_6^+}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_{12})} \\
\frac{+f_4^- f_5^- f_9^- f_{10}^- f_6^+}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_3+E_6)(-E_4-E_9-E_{10}+E_5+E_6+E_8)(-E_4-E_9-E_{10}+E_5+E_6+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_{12}^- - f_2^- f_5^- f_7^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_{12}+E_8)(-E_7-E_{12}+E_2+E_9)} \\
\frac{+f_2^- f_5^- f_6^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_{12}+E_2+E_3)(-E_{12}+E_8)(-E_5-E_6-E_{12}+E_2+E_9+E_{10})} \\
\frac{+f_4^- f_5^- f_6^- f_7^- f_{12}^- - f_4^- f_5^- f_7^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_7-E_{12}+E_4+E_9)} \\
\frac{+f_4^- f_5^- f_6^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_5-E_6+E_7+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_5-E_6-E_{12}+E_4+E_9+E_{10})} \\
\frac{+f_2^- f_7^- f_{10}^- f_{12}^- f_6^+}{(-E_2+E_4)(-E_7-E_{10}+E_5+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_2+E_9)(-E_7-E_{10}-E_{12}+E_2+E_3+E_6)} \\
\frac{+f_4^- f_7^- f_{10}^- f_{12}^- f_6^+}{(-E_4+E_2)(-E_7-E_{10}+E_5+E_6)(-E_{12}+E_8)(-E_7-E_{12}+E_4+E_9)(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_2^- f_3^- f_9^- f_{10}^- f_{12}^+ - f_2^- f_3^- f_6^- f_9^- f_{12}^+}{(-E_2+E_4)(-E_9-E_{10}+E_3+E_6)(-E_2-E_3+E_5+E_{12})(-E_{12}+E_8)(-E_2-E_9+E_7+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_{10}^+ f_{12}^+}{(-E_2+E_4)(-E_3-E_6+E_9+E_{10})(-E_2-E_3+E_5+E_{12})(-E_{12}+E_8)(-E_2-E_3-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_6^- f_9^- f_{12}^+}{(-E_4+E_2)(-E_9-E_{10}+E_3+E_6)(-E_3-E_4+E_5+E_{12})(-E_{12}+E_8)(-E_4-E_9+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{10}^+ f_{12}^+}{(-E_4+E_2)(-E_3-E_6+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{12}+E_8)(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_2^- f_9^- f_{10}^- f_6^+ f_{12}^+}{(-E_2+E_4)(-E_9-E_{10}+E_3+E_6)(-E_{12}+E_8)(-E_2-E_9+E_7+E_{12})(-E_2-E_9-E_{10}+E_5+E_6+E_{12})} \\
\frac{+f_4^- f_9^- f_{10}^- f_6^+ f_{12}^+}{(-E_4+E_2)(-E_9-E_{10}+E_3+E_6)(-E_{12}+E_8)(-E_4-E_9+E_7+E_{12})(-E_4-E_9-E_{10}+E_5+E_6+E_{12})} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_{12}^+ - f_2^- f_3^- f_7^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_{12})(-E_{12}+E_8)(-E_7-E_{12}+E_2+E_9)(-E_2-E_3-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_9^- f_{10}^- f_{12}^- - f_2^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_5-E_{12}+E_2+E_3)(-E_{12}+E_8)(-E_2-E_9+E_7+E_{12})(-E_2-E_9-E_{10}+E_5+E_6+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{12}^+ - f_3^- f_4^- f_7^- f_{10}^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_{12})(-E_{12}+E_8)(-E_7-E_{12}+E_4+E_9)(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_4^- f_5^- f_9^- f_{10}^- f_{12}^- - f_4^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_5-E_{12}+E_3+E_4)(-E_{12}+E_8)(-E_4-E_9+E_7+E_{12})(-E_4-E_9-E_{10}+E_5+E_6+E_{12})}
\end{gathered}
$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_7^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_3-E_7+E_5+E_9)(-E_5-E_6+E_7+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_{10}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_3-E_7+E_5+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_5+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_9^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_9+E_3+E_7)(-E_3-E_6+E_9+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_2^- f_5^- f_9^- f_{10}^- f_3^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_9+E_3+E_7)(-E_9-E_{10}+E_3+E_6)(-E_9-E_{10}+E_3+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_7^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_3-E_7+E_5+E_9)(-E_{12}+E_6)(-E_5-E_{12}+E_7+E_{10})}$$

$$\frac{+f_2^- f_3^- f_5^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_9+E_3+E_7)(-E_{12}+E_6)(-E_3-E_{12}+E_9+E_{10})}$$

$$\frac{+f_2^- f_5^- f_6^- f_7^- f_8^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_2+E_9)(-E_5-E_6+E_7+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_5+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_7^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_2+E_9)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_7-E_8-E_{10}+E_2+E_3+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_9^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_3-E_6+E_9+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_2^- f_3^- f_9^- f_{10}^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_6)(-E_9-E_{10}+E_3+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_9^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_2-E_9+E_7+E_8)(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_2^- f_5^- f_9^- f_{10}^- f_8^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_2-E_9+E_7+E_8)(-E_2-E_9-E_{10}+E_5+E_6+E_8)(-E_2-E_9-E_{10}+E_5+E_8+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{12}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_2+E_9)(-E_{12}+E_6)(-E_5-E_{12}+E_7+E_{10})}$$

$$\frac{+f_2^- f_3^- f_7^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_2+E_9)(-E_{12}+E_6)(-E_2-E_3-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_2^- f_3^- f_9^- f_{12}^- f_8^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_9+E_7+E_8)(-E_{12}+E_6)(-E_3-E_{12}+E_9+E_{10})}$$

$$\frac{+f_2^- f_5^- f_8^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_2-E_9+E_7+E_8)(-E_{12}+E_6)(-E_5-E_8-E_{12}+E_2+E_9+E_{10})}$$

$$\frac{+f_2^- f_3^- f_5^- f_6^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_2+E_9+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_8^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_3-E_6+E_9+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_2^- f_3^- f_5^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_{12}+E_6)(-E_5-E_{12}+E_7+E_{10})(-E_3-E_{12}+E_9+E_{10})}$$

$$\frac{+f_2^- f_5^- f_8^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_{12}+E_6)(-E_5-E_{12}+E_7+E_{10})(-E_5-E_8-E_{12}+E_2+E_9+E_{10})}$$

$$\frac{+f_2^- f_3^- f_{12}^- f_8^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_{12}+E_6)(-E_2-E_3-E_{12}+E_7+E_8+E_{10})(-E_3-E_{12}+E_9+E_{10})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_7+E_5+E_9)(-E_5-E_6+E_7+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_{10}^- f_5^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_7+E_5+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_5+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_9+E_3+E_7)(-E_3-E_6+E_9+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_4^- f_5^- f_9^- f_{10}^- f_3^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_9+E_3+E_7)(-E_9-E_{10}+E_3+E_6)(-E_9-E_{10}+E_3+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_7+E_5+E_9)(-E_{12}+E_6)(-E_5-E_{12}+E_7+E_{10})}$$

$$\frac{+f_3^- f_4^- f_5^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_9+E_3+E_7)(-E_{12}+E_6)(-E_3-E_{12}+E_9+E_{10})}$$

$$\frac{+f_4^- f_5^- f_6^- f_7^- f_8^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_4+E_9)(-E_5-E_6+E_7+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_4^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_4+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}+E_5+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_7^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_4+E_9)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^-}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_4+E_9)(-E_7-E_8-E_{10}+E_3+E_4+E_6)(-E_7-E_8-E_{10}+E_3+E_4+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_9^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_4-E_9+E_7+E_8)(-E_3-E_6+E_9+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_3^- f_4^- f_9^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_4-E_9+E_7+E_8)(-E_9-E_{10}+E_3+E_6)(-E_9-E_{10}+E_3+E_{12})}$$

$$\frac{+f_4^- f_5^- f_6^- f_8^- f_9^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_4-E_9+E_7+E_8)(-E_5-E_6-E_8+E_4+E_9+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_4^- f_5^- f_9^- f_{10}^- f_8^+}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_4-E_9+E_7+E_8)(-E_4-E_9-E_{10}+E_5+E_6+E_8)(-E_4-E_9-E_{10}+E_5+E_8+E_{12})}$$

$$\frac{+f_4^- f_5^- f_7^- f_8^- f_{12}^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_7-E_8+E_4+E_9)(-E_{12}+E_6)(-E_5-E_{12}+E_7+E_{10})}$$

$$\frac{+f_3^- f_4^- f_7^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_7-E_8+E_4+E_9)(-E_{12}+E_6)(-E_3-E_4-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_3^- f_4^- f_9^- f_{12}^- f_8^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_4-E_9+E_7+E_8)(-E_{12}+E_6)(-E_3-E_{12}+E_9+E_{10})}$$

$$\frac{+f_4^- f_5^- f_8^- f_9^- f_{12}^-}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_4-E_9+E_7+E_8)(-E_{12}+E_6)(-E_5-E_8-E_{12}+E_4+E_9+E_{10})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_6+E_9+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_4^- f_5^- f_6^- f_8^- f_{10}^+}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_4+E_9+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_3^- f_4^- f_6^- f_8^+ f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_3-E_4-E_6+E_7+E_8+E_{10})(-E_3-E_6+E_9+E_{10})(-E_6+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_{12}+E_6)(-E_5-E_{12}+E_7+E_{10})(-E_3-E_{12}+E_9+E_{10})}$$

$$\frac{+f_4^- f_5^- f_8^- f_{12}^- f_{10}^+}{(-E_4+E_2)(-E_5-E_8+E_3+E_4)(-E_{12}+E_6)(-E_5-E_{12}+E_7+E_{10})(-E_5-E_8-E_{12}+E_4+E_9+E_{10})}$$

$$\frac{+f_3^- f_4^- f_{12}^- f_8^+ f_{10}^+}{(-E_4+E_2)(-E_3-E_4+E_5+E_8)(-E_{12}+E_6)(-E_3-E_4-E_{12}+E_7+E_8+E_{10})(-E_3-E_{12}+E_9+E_{10})}$$

$$\frac{+f_2^- f_3^- f_6^- f_7^- f_9^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_2-E_3-E_7+E_5+E_9+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_7^- f_8^- f_9^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_7^- f_{11}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_6+E_7+E_{10})(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_5-E_6-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_3-E_7+E_5+E_9+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_9^- f_5^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_2-E_3-E_6+E_9+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_9^- f_{10}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_6+E_7+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_{11}^- f_5^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_6+E_7+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_5-E_6-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_{10}+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_3-E_7-E_{10}+E_5+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_{10}+E_5+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_7^- f_5^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_2-E_3-E_7+E_5+E_9+E_{12})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_{10}^- f_5^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_{10}+E_5+E_6)(-E_2-E_3-E_7+E_5+E_9+E_{12})(-E_3-E_7-E_{10}+E_5+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_6+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_5-E_6-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_5^+ f_{10}^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6+E_7+E_{10})(-E_2-E_3-E_6+E_9+E_{10}+E_{12})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_{10}^+ f_{12}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_9+E_{10}+E_{12})(-E_5-E_6-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_9^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_3-E_6-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_7-E_8-E_{11}+E_3+E_6+E_9)(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_9-E_{10}+E_2+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_8^- f_9^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_9-E_{10}+E_2+E_{11})(-E_2-E_3-E_6+E_9+E_{10}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_7-E_8+E_9+E_{12})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8-E_{10}+E_2+E_3+E_6)(-E_7-E_8+E_9+E_{12})(-E_7-E_8-E_{10}+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_8^- f_{10}^+ f_{12}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_6+E_7+E_8+E_{10})(-E_2-E_3-E_6+E_9+E_{10}+E_{12})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_{11}^- f_5^+ f_9^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_3-E_7+E_5+E_9+E_{12})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_2-E_7-E_{11}+E_5+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_9^- f_5^+ f_{11}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_5-E_6-E_9+E_2+E_7+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_5-E_6-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_9^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8-E_{11}+E_3+E_6+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_6^- f_8^- f_9^- f_{11}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_3-E_6-E_9+E_7+E_8+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_5-E_9-E_{12}+E_2+E_3+E_7)(-E_9-E_{10}-E_{12}+E_2+E_3+E_6)}$$

$$\frac{+f_2^- f_3^- f_9^- f_{11}^- f_{12}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_5-E_9-E_{12}+E_2+E_3+E_7)(-E_{11}-E_{12}+E_3+E_6)}$$

$$\frac{+f_2^- f_3^- f_8^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_2+E_3+E_6)}$$

$$\frac{+f_2^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_9-E_{10}+E_2+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_5+E_6+E_8)}$$

$$\frac{+f_2^- f_3^- f_8^- f_9^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_3+E_6)}$$

$$\frac{+f_2^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_2-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_2-E_{11}-E_{12}+E_5+E_6+E_8)}$$

$$\frac{+f_2^- f_3^- f_{11}^- f_{12}^- f_5^+ f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_6)(-E_5-E_{11}-E_{12}+E_3+E_7+E_{10})}$$

$$\frac{+f_2^- f_3^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_3+E_6)(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_2-E_{11}+E_9+E_{10})(-E_2-E_{11}-E_{12}+E_5+E_6+E_8)(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_2^- f_3^- f_6^- f_9^- f_{12}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_5-E_9-E_{12}+E_2+E_3+E_7)(-E_2-E_3-E_6+E_9+E_{10}+E_{12})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_5^+}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_2-E_3-E_7+E_5+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_6)(-E_5-E_{11}-E_{12}+E_3+E_7+E_{10})}$$

$$\frac{+f_2^- f_3^- f_6^- f_8^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_9-E_{12}+E_7+E_8)(-E_2-E_3-E_6+E_9+E_{10}+E_{12})(-E_3-E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_5^- f_6^- f_8^- f_9^- f_{12}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_9-E_{12}+E_7+E_8)(-E_5-E_6-E_8+E_9+E_{10}+E_{12})(-E_5-E_6-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_2-E_3+E_5+E_8)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_3+E_6)(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^-}{(-E_2+E_4)(-E_5-E_8+E_2+E_3)(-E_7-E_8+E_9+E_{12})(-E_2-E_{11}-E_{12}+E_5+E_6+E_8)(-E_2-E_{11}-E_{12}+E_7+E_8+E_{10})}$$

$$
+\frac{1}{2}\{1,2|V|3,8\}\{3,4|V|5,2\}\{5,6|V|1,4\}\{7,8|V|9,12\}\{9,10|V|11,6\}\{11,12|V|7,10\}
\left\{
\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- f_{12}^- -f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_9^+ +f_1^- f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- +f_1^- f_2^- f_3^- f_4^- f_7^- f_{11}^- f_9^+ -f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- -f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- +f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- -f_1^- f_2^- f_3^- f_4^- f_9^-}{(-E_2-E_5+E_3+E_4)(-E_1-E_2+E_3+E_6)(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_{11}+E_3+E_9+E_{10})(-E_3-E_9-E_{12}+E_1+E_2+E_7)} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- +f_1^- f_2^- f_3^- f_4^- f_{11}^- f_{12}^- f_{10}^+ -f_1^- f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- -f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_{10}^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_2+E_3+E_6)(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_{11}+E_3+E_9+E_{10})(-E_7-E_{10}+E_{11}} \\
\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- -f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- +f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{12}^+ -f_1^- f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_2+E_3+E_6)(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_9+E_{12})(-E_{11}-E_{12}+E_7} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- -f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- +f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_9^+ +f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- -f_2^- f_3^- f_4^- f_6^- f_7^- f_{11}^- f_9^+ +f_2^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- -f_2^- f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^- -f_2^- f_3^- f_5^- f_6^- f_7^-}{(-E_3-E_4+E_2+E_5)(-E_3-E_6+E_1+E_2)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_6+E_7)} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_{11}^- f_{12}^- f_{10}^+ -f_2^- f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- -f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ +f_2^- f_3^- f_5^- f_6^- f_7^- f}{(-E_3-E_4+E_2+E_5)(-E_3-E_6+E_1+E_2)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7} \\
\frac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^- -f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- +f_2^- f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^+ -f_2^- f_3^- f_4^- f_6^- f_7^- f}{(-E_3-E_4+E_2+E_5)(-E_3-E_6+E_1+E_2)(-E_6+E_8)(-E_6-E_7+E_9+E_{12})(-E_{11}-E_{12}+E_7} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ -f_1^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_5^+ +f_1^- f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_1^- f_2^- f_5^- f_7^- f_{11}^- f_4^+ f_9^+ +f_1^- f_3^- f_4^- f_7^- f_{11}^- f_5^+ f_9^+ +f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_5^+ -f_1^- f_3^- f_4^- f_7^- f_9^-}{(-E_2-E_5+E_3+E_4)(-E_1-E_4+E_5+E_6)(-E_1-E_4+E_5+E_8)(-E_5-E_9-E_{10}+E_1+E_4+E_{11})(-E_1-E_4-E_7+E_5+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ -f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ -f_1^- f_3^- f_4^- f_{11}^- f_{12}^- f_5^+ f_{10}^+ +f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_5^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_4+E_5+E_6)(-E_1-E_4+E_5+E_8)(-E_1-E_4-E_{11}+E_5+E_9+E_{10})(-E_{11}-E_{12}+E_7} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_5^+ -f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_3^- f_4^- f_7^- f_{10}^- f_5^+ f_{12}^+ +f_1^- f_2^- f_5^- f_7^- f_{10}^- f_4^+ f_{12}^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_5+E_6)(-E_1-E_4+E_5+E_8)(-E_1-E_4-E_7+E_5+E_9+E_{12})(-E_{11}-E_{12}+E_7} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- f_5^+ +f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_5^+ -f_3^- f_4^- f_6^- f_7^- f_{11}^- f_5^+ f_9^+ +f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ f_9^+ -f_2^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_4^+ +f_2^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^- f_5^+ -f_2^- f_5^- f_6^- f_7^- f_9^-}{(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_1+E_4)(-E_6+E_8)(-E_9-E_{10}+E_6+E_{11})(-E_6-E_7+E_9+E_{12})} \\
\frac{+f_3^- f_4^- f_6^- f_{11}^- f_{12}^- f_5^+ f_{10}^+ -f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ -f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- f_5^+ +f_2^- f_5^- f_6^- f_7^- f_{10}^- f}{(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_1+E_4)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7} \\
\frac{+f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^- f_5^+ -f_2^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ +f_2^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_{12}^+ -f_3^- f_4^- f_6^- f_7^- f_{10}^- f}{(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_1+E_4)(-E_6+E_8)(-E_6-E_7+E_9+E_{12})(-E_{11}-E_{12}+E_7} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+ -f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_9^+ +f_2^- f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{12}^- -f_2^- f_3^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- +f_2^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{10}^- -f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- +f_2^- f_3^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- -f_2^- f_3^- f_4^- f_8^- f_9^-}{(-E_3-E_4+E_2+E_5)(-E_3-E_8+E_1+E_2)(-E_8+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_2^- f_3^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ -f_2^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- -f_2^- f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f_{10}^+ +f_2^- f_3^- f_4^- f_7^- f_8^- f}{(-E_2-E_5+E_3+E_4)(-E_3-E_8+E_1+E_2)(-E_8+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7} \\
\frac{+f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- -f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- +f_2^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+ -f_2^- f_3^- f_5^- f_7^- f_8^- f}{(-E_2-E_5+E_3+E_4)(-E_3-E_8+E_1+E_2)(-E_8+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_7} \\
\frac{+f_3^- f_4^- f_8^- f_9^- f_{11}^- f_{12}^- f_5^+ -f_2^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- f_4^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+ f_9^+ +f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+ -f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{12}^- f_5^+ +f_2^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_4^+ -f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ +f_3^- f_4^- f_7^- f_8^- f_9^-}{(-E_3-E_4+E_2+E_5)(-E_5-E_8+E_1+E_4)(-E_8+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_9-E_{12}+E_7+E_8)} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_5^+ +f_2^- f_5^- f_8^- f_{11}^- f_{12}^- f_4^+ f_{10}^+ -f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+ -f_3^- f_4^- f_8^- f_{11}^- f_{12}^- f}{(-E_3-E_4+E_2+E_5)(-E_5-E_8+E_1+E_4)(-E_8+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ +f_3^- f_4^- f_7^- f_8^- f_{10}^- f_5^+ f_{12}^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_5^+ -f_2^- f_5^- f_7^- f_8^- f_{10}^- f}{(-E_2-E_5+E_3+E_4)(-E_5-E_8+E_1+E_4)(-E_8+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_7} \\
\frac{+f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+ -f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_{11}^+ -f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{11}^+ +f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_2-E_5+E_3+E_4)(-E_3-E_9-E_{10}+E_1+E_2+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_7} \\
\frac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_5^+ f_{11}^+ -f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_5^+ f_{11}^+ -f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+ +f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_5-E_9-E_{10}+E_1+E_4+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_7-E_{10}+E_{11}} \\
\frac{+f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_7^+ +f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_7^+ -f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_7^+ -f_2^- f_3^- f_5^- f_9^- f_{11}^- f_{12}^- f_7^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_9-E_{12}+E_1+E_2+E_7)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_7} \\
\frac{+f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_4^+ f_7^+ -f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ f_7^+ -f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_5^+ f_7^+ +f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_5^+ f_7^+}{(-E_2-E_5+E_3+E_4)(-E_5-E_9-E_{12}+E_1+E_4+E_7)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_7} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{11}^- f_1^+ f_9^+ +f_3^- f_4^- f_6^- f_9^- f_{11}^- f_{12}^- f_1^+ -f_1^- f_2^- f_5^- f_7^- f_{11}^- f_6^+ f_9^+ -f_1^- f_2^- f_4^- f_9^- f_{11}^- f_{12}^- f_6^+ -f_3^- f_4^- f_6^- f_7^- f_{11}^- f_1^+ f_9^+ +f_1^- f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_6^+ -f_3^- f_5^- f_6^- f_9^- f_{11}^- f_{12}^- f_1^+ +f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_1^+ +f_1^- f_2^- f_4^- f_7^- f_{11}^- f_6^+ f_9^+ -f_3^- f_5^- f_6^- f_7^- f_9^- f_{10}^- f_1^+ -f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+ +f_1^- f_2^- f_5^- f_7^- f_9^- f_{10}^- f_6^+ +f_1^- f_2^- f_4^- f_9^- f_{10}^- f_{12}^- f_6^+ -f_3^- f_4^- f_6^- f_9^- f_{10}^- f_{12}^- f_1^+ +f_3^- f_4^- f_6^- f_7^- f_9^- f_{10}^- f_1^+ -f_1^- f_2^- f_4^- f_7^- f_9^-}{(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_1+E_4)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_6-E_7+E_9+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+ -f_3^- f_4^- f_6^- f_7^- f_{10}^- f_{11}^- f_1^+ -f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_1^+ f_{10}^+ +f_3^- f_4^- f_6^- f_{11}^- f_{12}^- f_1^+ f_{10}^+ -f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_6^+ +f_3^- f_5^- f_6^- f_7^- f_{10}^- f_{11}^- f_1^+ -f_1^- f_2^- f_4^- f_{11}^- f_{12}^- f_6^+ f_{10}^+ +f_1^- f_2^- f_5^- f_{11}^- f_{12}^-}{(-E_1-E_2+E_3+E_6)(-E_1-E_4+E_5+E_6)(-E_6+E_8)(-E_6-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- f_1^+ -f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^- f_1^+ -f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_2^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_2^- f_4^- f_7^- f_{10}^- f_6^+ f_{12}^+ -f_3^- f_5^- f_6^- f_7^- f_{10}^- f_1^+ f_{12}^+ +f_3^- f_4^- f_6^- f_7^- f_{10}^- f_1^+ f_{12}^+ +f_1^- f_2^- f_5^- f_7^- f_{10}^-}{(-E_3-E_6+E_1+E_2)(-E_5-E_6+E_1+E_4)(-E_6+E_8)(-E_6-E_7+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_{11}^- f_8^+ f_9^+ -f_3^- f_4^- f_8^- f_9^- f_{11}^- f_{12}^- f_1^+ +f_3^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- f_1^+ +f_1^- f_2^- f_4^- f_9^- f_{11}^- f_{12}^- f_8^+ -f_3^- f_5^- f_7^- f_8^- f_{11}^- f_1^+ f_9^+ -f_1^- f_2^- f_5^- f_9^- f_{11}^- f_{12}^- f_8^+ -f_3^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_1^+ -f_1^- f_2^- f_4^- f_7^- f_{11}^- f_8^+ f_9^+ +f_3^- f_4^- f_8^- f_9^- f_{10}^- f_{12}^- f_1^+ +f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_1^+ f_9^+ -f_1^- f_2^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+ +f_3^- f_5^- f_7^- f_8^- f_9^- f_{10}^- f_1^+ +f_1^- f_2^- f_4^- f_7^- f_9^- f_{10}^- f_8^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_1^+ -f_1^- f_2^- f_5^- f_7^- f_9^-}{(-E_1-E_2+E_3+E_8)(-E_5-E_8+E_1+E_4)(-E_8+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_9+E_{12})} \\
\frac{+f_3^- f_5^- f_8^- f_{11}^- f_{12}^- f_1^+ f_{10}^+ +f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_8^+ -f_1^- f_2^- f_4^- f_7^- f_{10}^- f_{11}^- f_8^+ +f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_1^+ +f_1^- f_2^- f_4^- f_{11}^- f_{12}^- f_8^+ f_{10}^+ -f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_8^+ f_{10}^+ -f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_1^+ -f_3^- f_4^- f_8^- f_{11}^- f_{12}^-}{(-E_3-E_8+E_1+E_2)(-E_5-E_8+E_1+E_4)(-E_8+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_1^+ -f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_8^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_1^+ +f_1^- f_2^- f_5^- f_7^- f_{10}^- f_8^+ f_{12}^+ -f_3^- f_5^- f_7^- f_8^- f_{10}^- f_1^+ f_{12}^+ -f_1^- f_2^- f_4^- f_7^- f_{10}^- f_8^+ f_{12}^+ +f_3^- f_4^- f_7^- f_8^- f_{10}^- f_1^+ f_{12}^+ +f_1^- f_2^- f_4^- f_7^- f_{11}^-}{(-E_3-E_8+E_1+E_2)(-E_5-E_8+E_1+E_4)(-E_8+E_6)(-E_7-E_8+E_9+E_{12})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_1^- f_2^- f_5^- f_{11}^- f_{12}^- f_9^+ f_{10}^+ -f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_1^+ f_{11}^+ +f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_1^+ f_{11}^+ -f_1^- f_2^- f_5^- f_7^- f_{11}^- f_9^+ f_{10}^+ +f_3^- f_5^- f_7^- f_9^- f_{10}^- f_1^+ f_{11}^+ -f_1^- f_2^- f_4^- f_{11}^- f_{12}^- f_9^+ f_{10}^+ -f_3^- f_4^- f_7^- f_9^- f_{10}^- f_1^+ f_{11}^+ +f_1^- f_2^- f_4^- f_7^- f_{11}^-}{(-E_1-E_2-E_{11}+E_3+E_9+E_{10})(-E_5-E_9-E_{10}+E_1+E_4+E_{11})(-E_9-E_{10}+E_6+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_7+E_{10})} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_{10}^- f_9^+ f_{12}^+ +f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_1^+ f_7^+ -f_3^- f_4^- f_9^- f_{11}^- f_{12}^- f_1^+ f_7^+ +f_1^- f_2^- f_4^- f_7^- f_{11}^- f_9^+ f_{12}^+ -f_1^- f_2^- f_4^- f_7^- f_{10}^- f_9^+ f_{12}^+ -f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_1^+ f_7^+ -f_1^- f_2^- f_5^- f_7^- f_{11}^- f_9^+ f_{12}^+ +f_3^- f_5^- f_9^- f_{11}^- f_{12}^-}{(-E_1-E_2-E_7+E_3+E_9+E_{12})(-E_5-E_9-E_{12}+E_1+E_4+E_7)(-E_9-E_{12}+E_6+E_7)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})}
\end{array}
\right.
$$

$$\left(\begin{array}{r}
\dfrac{+f_1^- f_2^- f_3^- f_4^- f_6^- f_7^- f_{11}^- - f_1^- f_2^- f_3^- f_4^- f_6^- f_7^- f_9^-}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_7+E_8)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_1-E_2-E_{11}+E_3+E_6+E_9)(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ - f_2^- f_3^- f_6^- f_7^- f_8^- f_9^- f_4^+}{(-E_3-E_4+E_2+E_5)(-E_7-E_8+E_1+E_4)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_2-E_7-E_8-E_{11}+E_3+E_4+E_6+E_9)(-E_2-E_7-E_8+E_3+E_4+E_{12})} \\
\dfrac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- - f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^-}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_7+E_8)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_1-E_4-E_{11}+E_7+E_9+E_{10})(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ - f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+}{(-E_3-E_4+E_2+E_5)(-E_7-E_8+E_1+E_4)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_2-E_7-E_8+E_3+E_4+E_{12})} \\
\dfrac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ - f_1^- f_3^- f_4^- f_6^- f_7^- f_{11}^- f_5^+ - f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ + f_1^- f_3^- f_4^- f_6^- f_7^- f_9^- f_5^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_4+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_1-E_4-E_{11}+E_5+E_6+E_9)(-E_1-E_4+E_5+E_{12})} \\
\dfrac{+f_3^- f_4^- f_6^- f_7^- f_8^- f_{11}^- f_5^+ - f_3^- f_4^- f_6^- f_7^- f_8^- f_9^- f_5^+ + f_2^- f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+ - f_2^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_4^+}{(-E_3-E_4+E_2+E_5)(-E_7-E_8+E_1+E_4)(-E_5-E_6+E_7+E_{10})(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_7-E_8+E_5+E_{12})} \\
\dfrac{+f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_1^- f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ - f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_5^+ + f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_5^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_4+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_1-E_4-E_{11}+E_7+E_9+E_{10})(-E_1-E_4+E_5+E_{12})} \\
\dfrac{+f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_5^+ - f_2^- f_5^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_5^+ + f_2^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^- f_4^+}{(-E_3-E_4+E_2+E_5)(-E_7-E_8+E_1+E_4)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_5+E_{12})} \\
\dfrac{+f_1^- f_2^- f_3^- f_4^- f_6^- f_9^- f_8^+ - f_1^- f_2^- f_3^- f_4^- f_6^- f_{11}^- f_8^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_7+E_8)(-E_3-E_6-E_8+E_1+E_2+E_{10})(-E_3-E_6-E_9+E_1+E_2+E_{11})(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_1^- f_2^- f_3^- f_4^- f_9^- f_{10}^- f_8^+ - f_1^- f_2^- f_3^- f_4^- f_{10}^- f_{11}^- f_8^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_7+E_8)(-E_1-E_2-E_{10}+E_3+E_6+E_8)(-E_9-E_{10}+E_8+E_{11})(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_5^+ f_8^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_8^+ - f_1^- f_3^- f_4^- f_6^- f_{11}^- f_5^+ f_8^+ + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_8^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_7+E_8)(-E_5-E_6-E_8+E_1+E_4+E_{10})(-E_5-E_6-E_9+E_1+E_4+E_{11})(-E_1-E_4+E_5+E_{12})} \\
\dfrac{+f_1^- f_3^- f_4^- f_{10}^- f_{11}^- f_5^+ f_8^+ - f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_4^+ f_8^+ + f_1^- f_2^- f_5^- f_9^- f_{10}^- f_4^+ f_8^+ - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_5^+ f_8^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_7+E_8)(-E_1-E_4-E_{10}+E_5+E_6+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_4+E_5+E_{12})} \\
\dfrac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_{11}^- f_9^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_7+E_8)(-E_1-E_2-E_{11}+E_3+E_6+E_9)(-E_1-E_4-E_{11}+E_7+E_9+E_{10})(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_1^- f_2^- f_3^- f_4^- f_{11}^- f_8^+ f_9^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_7+E_8)(-E_1-E_2-E_{11}+E_3+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_1^- f_2^- f_5^- f_7^- f_{11}^- f_4^+ f_9^+ - f_1^- f_3^- f_4^- f_7^- f_{11}^- f_5^+ f_9^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_4+E_7+E_8)(-E_1-E_4-E_{11}+E_5+E_6+E_9)(-E_1-E_4-E_{11}+E_7+E_9+E_{10})(-E_1-E_4+E_5+E_{12})} \\
\dfrac{+f_1^- f_3^- f_4^- f_{11}^- f_5^+ f_8^+ f_9^+ - f_1^- f_2^- f_5^- f_{11}^- f_4^+ f_8^+ f_9^+}{(-E_3-E_4+E_2+E_5)(-E_1-E_4+E_7+E_8)(-E_1-E_4-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_4+E_5+E_{12})} \\
\dfrac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+}{(-E_3-E_4+E_2+E_5)(-E_7-E_8+E_1+E_4)(-E_2-E_7-E_8-E_{11}+E_3+E_4+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_7-E_8+E_3+E_4+E_{12})} \\
\dfrac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_5^+ f_9^+ - f_2^- f_5^- f_7^- f_8^- f_{11}^- f_4^+ f_9^+}{(-E_3-E_4+E_2+E_5)(-E_7-E_8+E_1+E_4)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_5+E_{12})} \\
\dfrac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_9^-}{(-E_2-E_5+E_3+E_4)(-E_1-E_2-E_5+E_3+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_1-E_2-E_{11}+E_3+E_6+E_9)(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_5^+ - f_2^- f_3^- f_6^- f_7^- f_8^- f_9^- f_5^+}{(-E_2-E_5+E_3+E_4)(-E_3-E_7-E_8+E_1+E_2+E_5)(-E_5-E_6+E_7+E_{10})(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_7-E_8+E_5+E_{12})} \\
\dfrac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- - f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^-}{(-E_2-E_5+E_3+E_4)(-E_1-E_2-E_5+E_3+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_1-E_2-E_5-E_{11}+E_3+E_7+E_9+E_{10})(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_2^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_5^+ - f_2^- f_3^- f_7^- f_8^- f_9^- f_{10}^- f_5^+}{(-E_2-E_5+E_3+E_4)(-E_3-E_7-E_8+E_1+E_2+E_5)(-E_7-E_{10}+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_5+E_{12})} \\
\dfrac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_8^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_8^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_2-E_5+E_3+E_7+E_8)(-E_3-E_6-E_8+E_1+E_2+E_{10})(-E_1-E_2-E_{11}+E_3+E_6+E_9)(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_8^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_8^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_2-E_5+E_3+E_7+E_8)(-E_1-E_2-E_{10}+E_3+E_6+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_9^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_2-E_5+E_3+E_7+E_8)(-E_1-E_2-E_{11}+E_3+E_6+E_9)(-E_1-E_2-E_5-E_{11}+E_3+E_7+E_9+E_{10})(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_1^- f_2^- f_3^- f_5^- f_{11}^- f_8^+ f_9^+}{(-E_2-E_5+E_3+E_4)(-E_1-E_2-E_5+E_3+E_7+E_8)(-E_1-E_2-E_{11}+E_3+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+ f_9^+}{(-E_2-E_5+E_3+E_4)(-E_3-E_7-E_8+E_1+E_2+E_5)(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_8+E_5+E_{12})} \\
\dfrac{+f_1^- f_2^- f_3^- f_4^- f_6^- f_{11}^- f_{10}^+ - f_1^- f_2^- f_3^- f_4^- f_6^- f_9^- f_{10}^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_1-E_2-E_{10}+E_3+E_6+E_8)(-E_1-E_2-E_{11}+E_3+E_6+E_9)(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_2^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{10}^+ - f_2^- f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_6-E_8+E_1+E_2+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\dfrac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_6-E_9+E_1+E_2+E_{11})(-E_3-E_4-E_6-E_9+E_2+E_7+E_8+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\dfrac{+f_2^- f_3^- f_4^- f_6^- f_9^- f_{10}^+ f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_6-E_9+E_1+E_2+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\dfrac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_7-E_9-E_{10}+E_1+E_4+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_2-E_7-E_9-E_{10}+E_3+E_4+E_{11}+E_{12})} \\
\dfrac{+f_2^- f_3^- f_4^- f_6^- f_7^- f_{11}^- f_{12}^- - f_2^- f_3^- f_4^- f_6^- f_7^- f_9^- f_{12}^-}{(-E_3-E_4+E_2+E_5)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_3-E_4-E_{12}+E_2+E_7+E_8)(-E_{11}-E_{12}+E_6+E_9)} \\
\dfrac{+f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_4+E_2+E_5)(-E_2-E_7-E_{10}+E_3+E_4+E_6)(-E_3-E_{12}+E_1+E_2)(-E_3-E_4-E_{12}+E_2+E_7+E_8)(-E_3-E_4-E_{11}-E_{12}+E_2+E_7+E_9+E_{10})} \\
\dfrac{+f_2^- f_3^- f_4^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_4^- f_6^- f_9^- f_{12}^- f_{10}^+}{(-E_3-E_4+E_2+E_5)(-E_3-E_4-E_6+E_2+E_7+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_{10}-E_{12}+E_6+E_8)(-E_{11}-E_{12}+E_6+E_9)} \\
\dfrac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{10}^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^+}{(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_1-E_2-E_{10}+E_3+E_6+E_8)(-E_1-E_2-E_{11}+E_3+E_6+E_9)(-E_1-E_2+E_3+E_{12})} \\
\dfrac{+f_2^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^+ - f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+}{(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_3-E_6-E_8+E_1+E_2+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\dfrac{+f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_{10}^+ - f_1^- f_3^- f_4^- f_6^- f_{11}^- f_5^+ f_{10}^+ + f_1^- f_3^- f_4^- f_6^- f_9^- f_5^+ f_{10}^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_{10}^+}{(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_1-E_4-E_{10}+E_5+E_6+E_8)(-E_1-E_4-E_{11}+E_5+E_6+E_9)(-E_1-E_4+E_5+E_{12})} \\
\dfrac{+f_3^- f_4^- f_6^- f_8^- f_9^- f_5^+ f_{10}^+ - f_2^- f_5^- f_6^- f_8^- f_9^- f_4^+ f_{10}^+ + f_2^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_{10}^+ - f_3^- f_4^- f_6^- f_8^- f_{11}^- f_5^+ f_{10}^+}{(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_1+E_4+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_8+E_{10}+E_{12})} \\
\dfrac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{11}^+}{(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_3-E_6-E_9+E_1+E_2+E_{11})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\dfrac{+f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^+ f_{11}^+}{(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_3-E_6-E_9+E_1+E_2+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\dfrac{+f_3^- f_4^- f_6^- f_7^- f_9^- f_5^+ f_{11}^+ - f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+ f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_1+E_4+E_{11})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\dfrac{+f_3^- f_4^- f_6^- f_9^- f_5^+ f_{10}^+ f_{11}^+ - f_2^- f_5^- f_6^- f_9^- f_4^+ f_{10}^+ f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_1+E_4+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_6-E_9+E_{11}+E_{12})} \\
\dfrac{+f_3^- f_4^- f_7^- f_9^- f_{10}^- f_5^+ f_{11}^+ - f_2^- f_5^- f_7^- f_9^- f_{10}^- f_4^+ f_{11}^+}{(-E_3-E_4+E_2+E_5)(-E_7-E_{10}+E_5+E_6)(-E_7-E_9-E_{10}+E_1+E_4+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_7-E_9-E_{10}+E_5+E_{11}+E_{12})} \\
\dfrac{+f_2^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ f_{11}^+}{(-E_2-E_5+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_3-E_7-E_9-E_{10}+E_1+E_2+E_5+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_7-E_9-E_{10}+E_5+E_{11}+E_{12})} \\
\dfrac{+f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^- f_{12}^- - f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- f_{12}^-}{(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_5-E_{12}+E_7+E_8)(-E_{11}-E_{12}+E_6+E_9)} \\
\dfrac{+f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_2^- f_3^- f_5^- f_7^- f_9^- f_{10}^- f_{12}^-}{(-E_2-E_5+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_3-E_{12}+E_1+E_2)(-E_5-E_{12}+E_7+E_8)(-E_5-E_{11}-E_{12}+E_7+E_9+E_{10})} \\
\dfrac{+f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^- f_{10}^+}{(-E_2-E_5+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_{10}-E_{12}+E_6+E_8)(-E_{11}-E_{12}+E_6+E_9)}
\end{array}\right)$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_2+E_7)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_8+E_{11})(-E_3-E_4-E_5-E_8+E_1+E_2+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_9^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_2-E_7+E_3+E_4+E_5)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^+ - f_1^- f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_2+E_7)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_8+E_{11})(-E_4-E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{11}^+ - f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_2-E_7+E_3+E_4+E_5)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_8+E_{11})(-E_1-E_2-E_7+E_3+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_8^- f_{12}^+ - f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_{12}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_2+E_7)(-E_1-E_2+E_3+E_{10})(-E_3-E_4-E_5-E_8+E_1+E_2+E_9+E_{12})(-E_4-E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_{12}^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_2-E_7+E_3+E_4+E_5)(-E_1-E_2+E_3+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_1-E_2-E_7+E_3+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_7^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_2+E_7)(-E_4-E_5+E_7+E_{10})(-E_4-E_5-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_7^+ f_{11}^+ - f_1^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_7^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_2+E_7)(-E_4-E_5+E_7+E_{10})(-E_4-E_5-E_9+E_7+E_8+E_{11})(-E_4-E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{12}^- f_7^+ - f_1^- f_3^- f_4^- f_5^- f_8^- f_7^+ f_{12}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_2+E_7)(-E_4-E_5+E_7+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_4-E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_9^-}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_8+E_{11})(-E_5-E_6-E_8+E_2+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_9^-}{(-E_1-E_6+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_3+E_{10})(-E_3-E_8-E_{11}+E_1+E_2+E_9)(-E_1-E_5-E_6+E_3+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{11}^+ - f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_1-E_6+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_8+E_{11})(-E_1-E_2-E_7+E_3+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_2+E_3+E_{10})(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_1-E_5-E_6+E_3+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_1-E_2+E_3+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_1-E_2-E_7+E_3+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_8^- f_9^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_8^- f_9^- f_6^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_4+E_6+E_{10})(-E_2-E_4-E_9+E_6+E_8+E_{11})(-E_5-E_6-E_8+E_2+E_9+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ - f_1^- f_2^- f_6^- f_7^- f_8^- f_9^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_2-E_7+E_5+E_6)(-E_2-E_4+E_6+E_{10})(-E_2-E_4-E_9+E_6+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_{11}^+ - f_1^- f_2^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_6^+ f_{11}^+ + f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_2-E_4+E_6+E_{10})(-E_2-E_4-E_9+E_6+E_8+E_{11})(-E_4-E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_6^- f_7^- f_9^- f_4^+ f_{11}^+ - f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+ f_{11}^+ + f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_4+E_6+E_{10})(-E_2-E_4-E_9+E_6+E_8+E_{11})(-E_2-E_4-E_7+E_6+E_{11}+E_{12})}$$

$$\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_{12}^- f_6^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ + f_1^- f_2^- f_5^- f_6^- f_8^- f_4^+ f_{12}^+ - f_2^- f_3^- f_4^- f_5^- f_8^- f_6^+ f_{12}^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_2+E_7)(-E_2-E_4+E_6+E_{10})(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_4-E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_6^- f_7^- f_8^- f_4^+ f_{12}^+ + f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^- f_6^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_8^- f_6^+ f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_7+E_5+E_6)(-E_2-E_4+E_6+E_{10})(-E_7-E_8+E_9+E_{12})(-E_2-E_4-E_7+E_6+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ f_7^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_6^+ f_7^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_4-E_5+E_7+E_{10})(-E_4-E_5-E_9+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_7^+ - f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+ f_7^+ - f_1^- f_5^- f_6^- f_9^- f_4^+ f_7^+ f_{11}^+ + f_3^- f_4^- f_5^- f_9^- f_6^+ f_7^+ f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_4-E_5+E_7+E_{10})(-E_7-E_8-E_{11}+E_4+E_5+E_9)(-E_4-E_5+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_8^- f_6^+ f_7^+ f_{12}^+ + f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_7^+ - f_1^- f_5^- f_6^- f_8^- f_4^+ f_7^+ f_{12}^+ - f_3^- f_4^- f_5^- f_9^- f_{12}^- f_6^+ f_7^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6+E_2+E_7)(-E_4-E_5+E_7+E_{10})(-E_7-E_8+E_9+E_{12})(-E_4-E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_7^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_7+E_{10})(-E_1-E_5-E_6-E_9+E_3+E_7+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_7^+ f_{11}^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_7^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_7+E_{10})(-E_1-E_5-E_6-E_9+E_3+E_7+E_8+E_{11})(-E_1-E_5-E_6+E_3+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- f_7^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_7^+ f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_2+E_7)(-E_1-E_5-E_6+E_3+E_7+E_{10})(-E_9-E_{12}+E_7+E_8)(-E_1-E_5-E_6+E_3+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_{10}+E_1+E_2)(-E_7-E_{10}+E_4+E_5)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_{10}+E_1+E_2)(-E_4-E_5+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_4-E_5-E_8+E_9+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{11}^- - f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_{10}+E_1+E_2)(-E_4-E_5+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_4-E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- - f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_{10}+E_1+E_2)(-E_7-E_{10}+E_4+E_5)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_{10}+E_1+E_2)(-E_7-E_{10}+E_4+E_5)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{12}^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_{10}+E_1+E_2)(-E_4-E_5+E_7+E_{10})(-E_9-E_{10}-E_{12}+E_4+E_5+E_8)(-E_4-E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{10}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_{10}+E_1+E_2)(-E_3-E_7-E_{10}+E_1+E_5+E_6)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_{10}+E_1+E_2)(-E_1-E_5-E_6+E_3+E_7+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_1-E_5-E_6-E_8+E_3+E_9+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^- - f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_{10}+E_1+E_2)(-E_1-E_5-E_6+E_3+E_7+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_1-E_5-E_6+E_3+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{11}^- - f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_{10}+E_1+E_2)(-E_3-E_7-E_{10}+E_1+E_5+E_6)(-E_8-E_{11}+E_9+E_{10})(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_6^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_{10}+E_1+E_2)(-E_3-E_7-E_{10}+E_1+E_5+E_6)(-E_9-E_{12}+E_7+E_8)(-E_7-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_{10}+E_1+E_2)(-E_1-E_5-E_6+E_3+E_7+E_{10})(-E_3-E_9-E_{10}-E_{12}+E_1+E_5+E_6+E_8)(-E_1-E_5-E_6+E_3+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_9^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_8+E_{11})(-E_1-E_2-E_9-E_{12}+E_3+E_4+E_5+E_8)(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_8+E_{11})(-E_2-E_9-E_{12}+E_5+E_6+E_8)(-E_9-E_{12}+E_7+E_8)}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_4^- f_8^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_8+E_{11})(-E_{11}-E_{12}+E_4+E_5)(-E_3-E_{11}-E_{12}+E_1+E_2+E_7)}$$

$$\frac{+f_1^- f_2^- f_3^- f_6^- f_8^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_6^- f_9^- f_{11}^- f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_1-E_2+E_3+E_{10})(-E_3-E_8-E_{11}+E_1+E_2+E_9)(-E_3-E_{11}-E_{12}+E_1+E_5+E_6)(-E_3-E_{11}-E_{12}+E_1+E_2+E_7)}$$

$$\frac{+f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_{10}+E_1+E_2)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_9-E_{10}-E_{12}+E_4+E_5+E_8)}$$

$$\frac{+f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_{10}+E_1+E_2)(-E_9-E_{10}+E_8+E_{11})(-E_9-E_{12}+E_7+E_8)(-E_3-E_9-E_{10}-E_{12}+E_1+E_5+E_6+E_8)}$$

$$\frac{+f_1^- f_3^- f_4^- f_8^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_3^- f_4^- f_9^- f_{10}^- f_{11}^- f_{12}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_{10}+E_1+E_2)(-E_8-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_4+E_5)(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_3^- f_6^- f_8^- f_{10}^- f_{11}^- f_{12}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_{10}+E_1+E_2)(-E_9-E_{10}+E_8+E_{11})(-E_3-E_{11}-E_{12}+E_1+E_5+E_6)(-E_{11}-E_{12}+E_7+E_{10})}$$

$$\frac{+f_1^- f_6^- f_7^- f_8^- f_9^- f_{10}^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_1-E_6+E_3+E_4)(-E_6-E_{10}+E_2+E_4)(-E_7-E_{10}+E_4+E_5)(-E_9-E_{10}+E_8+E_{11})(-E_7-E_8+E_9+E_{12})}$$

$$\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_5-E_6-E_7+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_5-E_6-E_7+E_3+E_4+E_{11})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_4+E_{11})(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_4^- f_5^- f_6^- f_7^- f_{10}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_5-E_6-E_7-E_{10}+E_1+E_2+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_{10}^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_5-E_6-E_7-E_{10}+E_1+E_2+E_4+E_{11})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_4^- f_5^- f_6^- f_9^- f_{10}^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_1-E_2+E_3+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_1-E_2+E_3+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{12}^-}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^-}{(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_1-E_2+E_3+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_{12}^- f_{10}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_{12}^- f_{10}^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_1-E_2+E_3+E_{10})(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_7+E_3+E_9+E_{10})(-E_5-E_6-E_7+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_9^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_7+E_3+E_9+E_{10})(-E_5-E_6-E_7+E_3+E_4+E_{11})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_4^- f_5^- f_6^- f_7^- f_9^+ f_{10}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_7+E_3+E_9+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_4-E_6-E_7+E_9+E_{10}+E_{12})}\\
\frac{+f_1^- f_5^- f_6^- f_7^- f_9^+ f_{10}^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_7+E_3+E_9+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_{12}^- f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_7+E_3+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_5^- f_6^- f_7^- f_{12}^- f_9^+ f_{10}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_7+E_3+E_9+E_{10})(-E_9-E_{10}-E_{12}+E_4+E_6+E_7)(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_4^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_7+E_3+E_4+E_{11})(-E_1-E_2-E_4-E_{11}+E_5+E_6+E_7+E_{10})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_5^- f_6^- f_7^- f_4^+ f_9^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_6-E_7+E_3+E_4+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_1-E_2-E_9+E_3+E_4+E_{11})(-E_4-E_{11}+E_9+E_{10})(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_{12}^- f_4^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_{12}+E_3+E_4)(-E_1-E_2-E_4+E_5+E_{10}+E_{12})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_{12}^- f_4^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_2-E_9+E_5+E_6+E_7)(-E_5-E_{12}+E_3+E_4)(-E_1-E_2-E_4+E_5+E_{10}+E_{12})(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_5^- f_6^- f_7^- f_{12}^- f_4^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_2+E_9)(-E_5-E_{12}+E_3+E_4)(-E_4-E_6-E_7+E_9+E_{10}+E_{12})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_8^-}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_1-E_7-E_8+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_6^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_1-E_7-E_8+E_3+E_4+E_{11})(-E_3-E_4-E_6+E_1+E_8+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_6^+ f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_1-E_7-E_8+E_3+E_4+E_{11})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_1-E_7-E_8+E_3+E_4+E_{11})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_8^- f_9^-}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_4^- f_8^- f_9^- f_6^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_4+E_{11})(-E_3-E_4-E_6+E_1+E_8+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_4+E_{11})(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_6^+ f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_1-E_2-E_9+E_3+E_4+E_{11})(-E_2-E_6-E_9+E_8+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_4^- f_5^- f_7^- f_8^- f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_4^- f_7^- f_8^- f_6^+ f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_2-E_4-E_6+E_8+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_7^- f_8^- f_6^+ f_{10}^+ f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_{10}^+ f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_4^- f_5^- f_8^- f_9^- f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_4^- f_8^- f_9^- f_6^+ f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_2-E_4-E_6+E_8+E_{10}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_8^- f_9^- f_{10}^+ f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_8^- f_9^- f_6^+ f_{10}^+ f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_9-E_{10}+E_4+E_{11})(-E_2-E_6-E_9+E_8+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_8^- f_{12}^-}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_1-E_7-E_8+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_5^- f_8^- f_9^- f_{12}^-}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_7^- f_8^- f_{12}^- f_6^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_1-E_8-E_{12}+E_3+E_4+E_6)(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_3^- f_8^- f_9^- f_{12}^- f_6^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_1-E_8-E_{12}+E_3+E_4+E_6)(-E_2-E_6-E_9+E_8+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_{12}^- f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_1-E_7-E_8+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_5^- f_8^- f_9^- f_{12}^- f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_1-E_2-E_9+E_5+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_7^- f_8^- f_{12}^- f_6^+ f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_2+E_9)(-E_1-E_2+E_3+E_{10})(-E_8-E_{10}-E_{12}+E_2+E_4+E_6)(-E_6-E_7+E_{11}+E_{12})}\\
\frac{+f_1^- f_2^- f_8^- f_9^- f_{12}^- f_6^+ f_{10}^+}{(-E_1-E_8+E_5+E_6)(-E_2-E_9+E_7+E_8)(-E_1-E_2+E_3+E_{10})(-E_8-E_{10}-E_{12}+E_2+E_4+E_6)(-E_2-E_6-E_9+E_8+E_{11}+E_{12})}
\end{array}\right)$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_3-E_8+E_1+E_2)(-E_1-E_7+E_3+E_9)(-E_5-E_6+E_7+E_{10})(-E_1-E_5-E_6+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^+}{(-E_3-E_8+E_1+E_2)(-E_1-E_7+E_3+E_9)(-E_5-E_6+E_7+E_{10})(-E_1-E_5-E_6+E_3+E_4+E_{11})(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_{10}^- - f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^-}{(-E_1-E_2+E_3+E_8)(-E_1-E_7+E_3+E_9)(-E_7-E_{10}+E_5+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_{10}^- f_6^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_6^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_7+E_3+E_9)(-E_7-E_{10}+E_5+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_7^- f_8^- f_{10}^- f_6^+ f_{11}^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_6^+ f_{11}^+}{(-E_3-E_8+E_1+E_2)(-E_1-E_7+E_3+E_9)(-E_7-E_{10}+E_5+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{11}^+ - f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{11}^+}{(-E_3-E_8+E_1+E_2)(-E_1-E_7+E_3+E_9)(-E_7-E_{10}+E_5+E_6)(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_1-E_7-E_{10}+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{12}^-}{(-E_3-E_8+E_1+E_2)(-E_1-E_7+E_3+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_{10}^- f_{12}^- - f_1^- f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^-}{(-E_1-E_2+E_3+E_8)(-E_1-E_7+E_3+E_9)(-E_7-E_{10}+E_5+E_6)(-E_5-E_{12}+E_3+E_4)(-E_1-E_7-E_{10}+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{12}^- f_6^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_7+E_3+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_6^- f_9^-}{(-E_3-E_8+E_1+E_2)(-E_3-E_9+E_1+E_7)(-E_1-E_5-E_6+E_3+E_9+E_{10})(-E_1-E_5-E_6+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{11}^+}{(-E_1-E_2+E_3+E_8)(-E_3-E_9+E_1+E_7)(-E_1-E_5-E_6+E_3+E_9+E_{10})(-E_1-E_5-E_6+E_3+E_4+E_{11})(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- - f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- f_1^+}{(-E_1-E_2+E_3+E_8)(-E_3-E_9+E_1+E_7)(-E_3-E_9-E_{10}+E_1+E_5+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_3^- f_4^- f_8^- f_9^- f_{10}^- f_1^+ f_6^+ - f_1^- f_2^- f_3^- f_4^- f_9^- f_{10}^- f_6^+}{(-E_3-E_8+E_1+E_2)(-E_3-E_9+E_1+E_7)(-E_3-E_9-E_{10}+E_1+E_5+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_1-E_4-E_6+E_9+E_{10}+E_{12})}$$

$$\frac{+f_3^- f_8^- f_9^- f_{10}^- f_1^+ f_6^+ f_{11}^+ - f_1^- f_2^- f_3^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_3-E_8+E_1+E_2)(-E_3-E_9+E_1+E_7)(-E_3-E_9-E_{10}+E_1+E_5+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_5^- f_8^- f_9^- f_{10}^- f_1^+ f_{11}^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_3-E_8+E_1+E_2)(-E_3-E_9+E_1+E_7)(-E_3-E_9-E_{10}+E_1+E_5+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^- - f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^-}{(-E_1-E_2+E_3+E_8)(-E_3-E_9+E_1+E_7)(-E_1-E_5-E_6+E_3+E_9+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_1^+ - f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_8+E_1+E_2)(-E_3-E_9+E_1+E_7)(-E_3-E_9-E_{10}+E_1+E_5+E_6)(-E_5-E_{12}+E_3+E_4)(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_3^- f_8^- f_9^- f_{10}^- f_{12}^- f_1^+ f_6^+}{(-E_1-E_2+E_3+E_8)(-E_3-E_9+E_1+E_7)(-E_3-E_9-E_{10}+E_1+E_5+E_6)(-E_9-E_{10}-E_{12}+E_1+E_4+E_6)(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_1^+ - f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^-}{(-E_3-E_8+E_1+E_2)(-E_1-E_7+E_3+E_9)(-E_3-E_4-E_{11}+E_1+E_5+E_6)(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_1^+ f_6^+ - f_1^- f_2^- f_3^- f_4^- f_7^- f_{11}^- f_6^+}{(-E_3-E_8+E_1+E_2)(-E_1-E_7+E_3+E_9)(-E_3-E_4-E_{11}+E_1+E_5+E_6)(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_{11}^- - f_3^- f_4^- f_5^- f_8^- f_9^- f_{11}^- f_1^+}{(-E_1-E_2+E_3+E_8)(-E_3-E_9+E_1+E_7)(-E_3-E_4-E_{11}+E_1+E_5+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_3^- f_4^- f_8^- f_9^- f_{11}^- f_1^+ f_6^+ - f_1^- f_2^- f_3^- f_4^- f_9^- f_{11}^- f_6^+}{(-E_3-E_8+E_1+E_2)(-E_3-E_9+E_1+E_7)(-E_3-E_4-E_{11}+E_1+E_5+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{12}^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{12}^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_7+E_3+E_9)(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_1^+ f_{12}^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_7+E_3+E_9)(-E_3-E_4-E_{11}+E_1+E_7+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_1+E_6)}$$

$$\frac{+f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^+ f_{12}^+ - f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^+ f_{12}^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_7+E_3+E_9)(-E_1-E_7-E_{10}+E_3+E_4+E_{11})(-E_{11}-E_{12}+E_1+E_6)(-E_1-E_7-E_{10}+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_8^- f_9^- f_{10}^- f_1^+ f_{12}^+}{(-E_1-E_2+E_3+E_8)(-E_3-E_9+E_1+E_7)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_4+E_5+E_{12})(-E_9-E_{10}-E_{12}+E_1+E_4+E_6)}$$

$$\frac{+f_3^- f_4^- f_8^- f_9^- f_{11}^- f_1^+ f_{12}^+ - f_1^- f_2^- f_3^- f_4^- f_9^- f_{11}^- f_{12}^+}{(-E_3-E_8+E_1+E_2)(-E_3-E_9+E_1+E_7)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4+E_5+E_{12})(-E_{11}-E_{12}+E_1+E_6)}$$

$$\frac{+f_1^- f_2^- f_3^- f_9^- f_{10}^- f_{11}^+ f_{12}^+ - f_3^- f_8^- f_9^- f_{10}^- f_1^+ f_{11}^+ f_{12}^+}{(-E_1-E_2+E_3+E_8)(-E_3-E_9+E_1+E_7)(-E_9-E_{10}+E_4+E_{11})(-E_{11}-E_{12}+E_1+E_6)(-E_3-E_9-E_{10}+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_3^- f_4^- f_6^- f_7^- f_8^- f_{12}^+ - f_1^- f_2^- f_3^- f_4^- f_6^- f_7^- f_{12}^+}{(-E_3-E_8+E_1+E_2)(-E_1-E_7+E_3+E_9)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_4^- f_6^- f_9^- f_{12}^+ - f_1^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_1-E_2+E_3+E_8)(-E_3-E_9+E_1+E_7)(-E_3-E_4+E_5+E_{12})(-E_1-E_4-E_6+E_9+E_{10}+E_{12})(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- - f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_1^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_7+E_3+E_9)(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_1+E_6)(-E_5-E_{11}-E_{12}+E_1+E_7+E_{10})}$$

$$\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{11}^- f_{12}^- - f_3^- f_5^- f_8^- f_9^- f_{11}^- f_{12}^- f_1^+}{(-E_1-E_2+E_3+E_8)(-E_3-E_9+E_1+E_7)(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_1+E_6)(-E_5-E_{11}-E_{12}+E_3+E_9+E_{10})}$$

$$\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_8^- f_2^+}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_2+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_6^- f_7^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_7-E_8+E_2+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_2+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_8+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_8^+ f_{11}^+}{(-E_1-E_2+E_3+E_8)(-E_7-E_8+E_2+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_2+E_4+E_{11})(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_2^+ f_{11}^+}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_8+E_2+E_4+E_{11})(-E_3-E_6-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_4^- f_5^- f_7^- f_8^- f_{10}^- f_2^+}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_3-E_4+E_5+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_5^- f_7^- f_{10}^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_8+E_{12})}$$

$$\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_2^+ f_6^+}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_4^- f_7^- f_{10}^- f_6^+ f_8^+}{(-E_1-E_2+E_3+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_1-E_2-E_4-E_6+E_7+E_8+E_{10}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_7^- f_{10}^- f_6^+ f_8^+ f_{11}^+}{(-E_1-E_2+E_3+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_7^- f_8^- f_{10}^- f_2^+ f_6^+ f_{11}^+}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_3-E_6-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_7^- f_{10}^- f_8^+ f_{11}^+}{(-E_1-E_2+E_3+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_1-E_7-E_{10}+E_5+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_5^- f_7^- f_8^- f_{10}^- f_2^+ f_{11}^+}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_3-E_7-E_8-E_{10}+E_2+E_5+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_5^- f_6^- f_7^- f_8^- f_{12}^- f_2^+}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_3-E_6-E_8+E_2+E_{11}+E_{12})}$$

$$\frac{+f_3^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_2^+}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_5-E_{12}+E_3+E_4)(-E_3-E_7-E_8-E_{10}+E_2+E_5+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_{12}^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_7-E_8+E_2+E_9)(-E_5-E_6+E_7+E_{10})(-E_5-E_8-E_{12}+E_1+E_2+E_4)(-E_1-E_6+E_{11}+E_{12})}$$

$$\frac{+f_1^- f_2^- f_5^- f_7^- f_{10}^- f_{12}^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_7-E_8+E_2+E_9)(-E_7-E_{10}+E_5+E_6)(-E_5-E_8-E_{12}+E_1+E_2+E_4)(-E_1-E_7-E_{10}+E_5+E_{11}+E_{12})}$$

$$+\frac{1}{2}\{1,2|V|3,12\}\{3,4|V|1,6\}\{5,6|V|7,10\}\{7,8|V|5,4\}\{9,10|V|11,8\}\{11,12|V|9,2\}\left(\begin{array}{r}
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{12}^- f_7^+ - f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_7^+ + f_1^- f_2^- f_3^- f_4^- f_5^- f_{11}^- f_7^+ - f_1^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_7^+}{(-E_3-E_4+E_1+E_6)(-E_4-E_5+E_7+E_8)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_3-E_9+E_1+E_{11})(-E_3-E_{12}+} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{12}^- f_6^+ f_7^+ + f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_7^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_6^+ f_7^+ - f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_7^+ + f_2^- f_3^- f_4^- f_5^- f_{11}^- f_6^+ f_7^+ + f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_7^+ - f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_7^+ - f_3^- f_4^- f_5^- f_{11}}{(-E_3-E_4+E_1+E_6)(-E_4-E_5+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_6-E_9+E_4+E_{11})(-E_6-E_{12}+E_2+E_4)} \\
\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^- + f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- - f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- + f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- + f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_8^- f_9^- - f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- - f_1^- f_3^- f_4^- f_5^-}{(-E_3-E_4+E_1+E_6)(-E_4-E_5+E_7+E_8)(-E_3-E_8+E_1+E_{10})(-E_1-E_{11}+E_3+E_9)(-E_1-E_2+E_3+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ - f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ - f_1^- f_6^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- f_6^+ + f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^- f_6^+ + f_1^- f_2^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ + f_1^- f_2^- f_6^- f_7^- f_8^- f_9^- f_4^+ + f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ - f_1^- f_2^- f_5^- f_6^- f_8^- f_9^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_6^+ + f_2^- f_3^- f_4^- f_5^- f_8^- f_9^- f_6^+ + f_1^- f_5^- f_6^- f_8^-}{(-E_1-E_6+E_3+E_4)(-E_7-E_8+E_4+E_5)(-E_6-E_8+E_4+E_{10})(-E_4-E_{11}+E_6+E_9)(-E_6-E_{12}+E_2+E_4)} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- f_7^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_7^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_7^+ - f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_7^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_5-E_6+E_3+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_3-E_9+E_1+E_{11})(-E_3-E_{12}+} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- + f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_9^- - f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_8^- f_9^- + f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^- + f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- - f_1^- f_3^- f_5^- f_6^-}{(-E_1-E_6+E_3+E_4)(-E_1-E_5-E_6+E_3+E_7+E_8)(-E_3-E_8+E_1+E_{10})(-E_1-E_{11}+E_3+E_9)(-E_1-E_2+E_3+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- + f_1^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- + f_1^- f_2^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- + f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- - f_1^- f_3^- f_4^- f_7^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_1-E_{10}+E_3+E_8)(-E_3-E_9+E_1+E_{11})(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_6^- f_7^- f_{10}^- f_{11}^- - f_1^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- + f_1^- f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- + f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^- + f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- - f_1^- f_2^- f_3^- f_5^-}{(-E_1-E_6+E_3+E_4)(-E_7-E_{10}+E_5+E_6)(-E_1-E_{10}+E_3+E_8)(-E_1-E_{11}+E_3+E_9)(-E_3-E_{12}+E_1+E_2)} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_6^+ + f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ + f_1^- f_2^- f_6^- f_7^- f_{10}^- f_{11}^- f_4^+ - f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_6^+ + f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_4^+ + f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ + f_2^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_{10}^- f_4^+ + f_3^- f_4^- f_7^- f_{10}}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{10})(-E_4-E_{10}+E_6+E_8)(-E_6-E_9+E_4+E_{11})(-E_2-E_4+E_6+E_{12})} \\
\frac{+f_3^- f_7^- f_8^- f_9^- f_{12}^- f_5^+ f_6^+ - f_1^- f_2^- f_5^- f_6^- f_{11}^- f_7^+ f_8^+ - f_1^- f_5^- f_6^- f_9^- f_{12}^- f_7^+ f_8^+ - f_2^- f_3^- f_7^- f_8^- f_9^- f_5^+ f_6^+ + f_1^- f_2^- f_5^- f_6^- f_9^- f_7^+ f_8^+ + f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+ f_6^+ - f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_5^+ f_6^+ + f_1^- f_5^- f_6^- f_{11}}{(-E_7-E_8+E_4+E_5)(-E_3-E_7-E_8+E_1+E_5+E_6)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_5-E_6-E_{12}+E_2+E_7+E_8)} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_5^+ - f_1^- f_3^- f_7^- f_8^- f_9^- f_{12}^- f_5^+ - f_1^- f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+ + f_1^- f_2^- f_3^- f_7^- f_8^- f_9^- f_5^+}{(-E_7-E_8+E_4+E_5)(-E_3-E_7-E_8+E_1+E_5+E_6)(-E_3-E_8+E_1+E_{10})(-E_1-E_{11}+E_3+E_9)(-E_3-E_{12}+} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_9^- f_7^+ f_{10}^+ + f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_4^+ f_5^+ - f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_5^+ + f_1^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_5^+ - f_3^- f_4^- f_5^- f_9^- f_{12}^- f_7^+ f_{10}^+ + f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_7^+ f_{10}^+ - f_1^- f_2^- f_7^- f_9^- f_{10}^- f_4^+ f_5^+ - f_2^- f_3^- f_4^- f_5^-}{(-E_4-E_5+E_7+E_8)(-E_3-E_4-E_5+E_1+E_7+E_{10})(-E_7-E_{10}+E_5+E_6)(-E_7-E_9-E_{10}+E_4+E_5+E_{11})(-E_2-E_4-E_5+E_7+E_{10}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_{11}^- f_5^+ f_{10}^+ + f_3^- f_7^- f_8^- f_9^- f_{12}^- f_5^+ f_{10}^+ + f_1^- f_2^- f_7^- f_9^- f_{10}^- f_5^+ f_8^+ + f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_5^+ f_8^+ - f_2^- f_3^- f_7^- f_8^- f_9^- f_5^+ f_{10}^+ - f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_5^+ f_8^+ - f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_5^+ f_{10}^+ - f_1^- f_7^- f_9^- f_{10}}{(-E_7-E_8+E_4+E_5)(-E_7-E_{10}+E_5+E_6)(-E_3-E_8+E_1+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_2-E_8+E_{10}+E_{12})} \\
\frac{+f_1^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_1^- f_2^- f_4^- f_7^- f_9^- f_{10}^- f_8^+ + f_2^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^+ - f_1^- f_2^- f_4^- f_5^- f_9^- f_{10}^- f_8^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- f_{10}^+ - f_1^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_1^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_8^+ + f_2^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_4^- f_5^- f_{10}^- f_{11}^- f_8^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^- f_{10}^+ + f_1^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_1^- f_2^- f_4^- f_7^- f_{10}^- f_{11}^- f_8^+ - f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{10}^+ - f_2^- f_3^- f_4^- f_7^-}{(-E_7-E_8+E_4+E_5)(-E_1-E_{10}+E_3+E_8)(-E_4-E_{10}+E_6+E_8)(-E_8-E_{11}+E_9+E_{10})(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{12}^- f_7^+ f_{11}^+ - f_1^- f_4^- f_5^- f_{11}^- f_{12}^- f_7^+ f_9^+ + f_1^- f_2^- f_4^- f_5^- f_{11}^- f_7^+ f_9^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_7^+ f_{11}^+}{(-E_4-E_5+E_7+E_8)(-E_3-E_9+E_1+E_{11})(-E_4-E_{11}+E_6+E_9)(-E_4-E_5-E_{11}+E_7+E_9+E_{10})(-E_{11}-E_{12}+} \\
\frac{+f_2^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{11}^+ + f_1^- f_2^- f_4^- f_5^- f_8^- f_{11}^- f_9^+ - f_1^- f_2^- f_4^- f_7^- f_8^- f_{11}^- f_9^+ - f_2^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{11}^+ + f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^- f_{11}^+ - f_1^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_9^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- f_{11}^+ + f_1^- f_4^- f_7^- f_8^-}{(-E_7-E_8+E_4+E_5)(-E_3-E_9+E_1+E_{11})(-E_4-E_{11}+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_7^- f_8^- f_9^- f_5^+ f_{11}^+ + f_1^- f_7^- f_8^- f_{11}^- f_{12}^- f_5^+ f_9^+ - f_1^- f_2^- f_7^- f_8^- f_{11}^- f_5^+ f_9^+ - f_3^- f_7^- f_8^- f_9^- f_{12}^- f_5^+ f_{11}^+}{(-E_7-E_8+E_4+E_5)(-E_3-E_9+E_1+E_{11})(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_9+E} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{12}^- f_2^+ f_7^+ + f_1^- f_2^- f_4^- f_5^- f_{11}^- f_7^+ f_{12}^+ - f_1^- f_2^- f_4^- f_5^- f_9^- f_7^+ f_{12}^+ - f_3^- f_4^- f_5^- f_{11}^- f_{12}^- f_2^+ f_7^+}{(-E_4-E_5+E_7+E_8)(-E_3-E_{12}+E_1+E_2)(-E_2-E_4+E_6+E_{12})(-E_2-E_4-E_5+E_7+E_{10}+E_{12})(-E_2-E_9+E} \\
\frac{+f_1^- f_2^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^+ - f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^- f_2^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- f_2^+ + f_1^- f_2^- f_4^- f_7^- f_8^- f_9^- f_{12}^+ - f_1^- f_2^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^+ + f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ - f_1^- f_2^- f_4^- f_5^- f_8^- f_9^- f_{12}^+ + f_3^- f_4^- f_5^- f_8^-}{(-E_4-E_5+E_7+E_8)(-E_1-E_2+E_3+E_{12})(-E_2-E_4+E_6+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ f_5^+ - f_1^- f_2^- f_7^- f_8^- f_{11}^- f_5^+ f_{12}^+ - f_3^- f_7^- f_8^- f_9^- f_{12}^- f_2^+ f_5^+ + f_1^- f_2^- f_7^- f_8^- f_9^- f_5^+ f_{12}^+}{(-E_7-E_8+E_4+E_5)(-E_3-E_{12}+E_1+E_2)(-E_2-E_7-E_8+E_5+E_6+E_{12})(-E_2-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+} \\
\frac{+f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_5^+ - f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_5^+ + f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ - f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_5^+}{(-E_1-E_7-E_{10}+E_3+E_4+E_5)(-E_7-E_{10}+E_5+E_6)(-E_1-E_{10}+E_3+E_8)(-E_1-E_{11}+E_3+E_9)(-E_3-E_{12}+} \\
\frac{+f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_{10}^+ + f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+ - f_2^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^+ + f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_8^+ + f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_8^+ - f_2^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+ + f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^- f_{10}^+ + f_2^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{10}^+ + f_1^- f_2^- f_6^- f_7^- f_{10}^- f_{11}^- f_8^+ - f_3^- f_6^- f_7^- f_8^- f_9^- f_{12}^- f_{10}^+ - f_1^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ + f_2^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{10}^+ - f_1^- f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_{10}^- f_8^+ - f_1^- f_6^- f_7^- f_{10}}{(-E_5-E_6+E_7+E_{10})(-E_1-E_{10}+E_3+E_8)(-E_6-E_8+E_4+E_{10})(-E_8-E_{11}+E_9+E_{10})(-E_{10}-E_{12}+E_2+E_8)} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{12}^- f_7^+ f_{11}^+ - f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_7^+ f_9^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_7^+ f_{11}^+ + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_7^+ f_9^+}{(-E_5-E_6+E_7+E_{10})(-E_3-E_9+E_1+E_{11})(-E_6-E_9+E_4+E_{11})(-E_5-E_6-E_9+E_7+E_8+E_{11})(-E_{11}-E_{12}+} \\
\frac{+f_1^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_9^+ - f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ + f_1^- f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_9^+ - f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+ + f_2^- f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+ + f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_1^- f_2^- f_6^- f_7^- f_{10}^- f_{11}^- f_9^+ - f_1^- f_5^- f_6^- f_{10}}{(-E_7-E_{10}+E_5+E_6)(-E_1-E_{11}+E_3+E_9)(-E_6-E_9+E_4+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_5^+ f_9^+ - f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_5^+ f_9^+ + f_2^- f_3^- f_7^- f_9^- f_{10}^- f_5^+ f_{11}^+ - f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_5^+ f_{11}^+}{(-E_7-E_{10}+E_5+E_6)(-E_1-E_{11}+E_3+E_9)(-E_7-E_9-E_{10}+E_4+E_5+E_{11})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+} \\
\frac{+f_3^- f_5^- f_6^- f_9^- f_{12}^- f_2^+ f_7^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_7^+ f_{12}^+ + f_1^- f_2^- f_5^- f_6^- f_{11}^- f_7^+ f_{12}^+ - f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_2^+ f_7^+}{(-E_5-E_6+E_7+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_6-E_{12}+E_2+E_4)(-E_5-E_6-E_{12}+E_2+E_7+E_8)(-E_2-E_9+E} \\
\frac{+f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_2^+ - f_3^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ + f_1^- f_2^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^+ + f_3^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ - f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_2^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_1^- f_2^- f_5^- f_6^-}{(-E_5-E_6+E_7+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_6-E_{12}+E_2+E_4)(-E_{10}-E_{12}+E_2+E_8)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_5^+ f_{12}^+ + f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_2^+ f_5^+ - f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ f_5^+ - f_1^- f_2^- f_7^- f_9^- f_{10}^- f_5^+ f_{12}^+}{(-E_7-E_{10}+E_5+E_6)(-E_1-E_2+E_3+E_{12})(-E_7-E_{10}-E_{12}+E_2+E_4+E_5)(-E_{10}-E_{12}+E_2+E_8)(-E_{11}-E_{12}+} \\
\frac{+f_2^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{11}^+ - f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_9^+ - f_2^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{11}^+ + f_1^- f_2^- f_5^- f_6^- f_8^- f_{11}^- f_9^+ + f_1^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_9^+ - f_1^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_9^+ - f_3^- f_6^- f_7^- f_8^- f_9^- f_{12}^- f_{11}^+ + f_3^- f_5^- f_6^- f_8^-}{(-E_3-E_9+E_1+E_{11})(-E_6-E_9+E_4+E_{11})(-E_7-E_8-E_{11}+E_5+E_6+E_9)(-E_8-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_9^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_{11}^+ + f_1^- f_2^- f_4^- f_7^- f_{10}^- f_{11}^- f_9^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_{11}^+ - f_1^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_9^+ + f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^+ - f_1^- f_2^- f_4^- f_5^-}{(-E_1-E_{11}+E_3+E_9)(-E_4-E_{11}+E_6+E_9)(-E_4-E_5-E_{11}+E_7+E_9+E_{10})(-E_9-E_{10}+E_8+E_{11})(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^- f_2^+ + f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ + f_1^- f_2^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+ + f_1^- f_2^- f_6^- f_7^- f_8^- f_9^- f_{12}^+ - f_3^- f_6^- f_7^- f_8^- f_9^- f_{12}^- f_2^+ - f_1^- f_2^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ - f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^+ - f_3^- f_5^- f_6^- f_8^-}{(-E_3-E_{12}+E_1+E_2)(-E_6-E_{12}+E_2+E_4)(-E_5-E_6-E_{12}+E_2+E_7+E_8)(-E_2-E_8+E_{10}+E_{12})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_2^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_2^+ + f_1^- f_2^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^+ + f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_2^+ - f_1^- f_2^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^+ + f_3^- f_4^- f_7^- f_9^-}{(-E_1-E_2+E_3+E_{12})(-E_2-E_4+E_6+E_{12})(-E_2-E_4-E_5+E_7+E_{10}+E_{12})(-E_{10}-E_{12}+E_2+E_8)(-E_2-E_9+E_{11}+E_{12})}
\end{array}\right.$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{11}^{-}f_{5}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{10}^{-}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{2}+E_{3}+E_{8})(-E_{1}-E_{5}+E_{3}+E_{9})(-E_{3}-E_{4}-E_{11}+E_{1}+E_{5}+E_{10})(-E_{3}-E_{4}+E_{5}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{11}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{10}^{-}f_{11}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{1}-E_{2}+E_{3}+E_{8})(-E_{1}-E_{5}+E_{3}+E_{9})(-E_{1}-E_{5}-E_{10}+E_{3}+E_{4}+E_{11})(-E_{1}-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{10}^{-}f_{12}^{-}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{12}^{-}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{2}+E_{3}+E_{8})(-E_{1}-E_{5}+E_{3}+E_{9})(-E_{5}-E_{12}+E_{3}+E_{4})(-E_{11}-E_{12}+E_{1}+E_{10})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{7}^{-}f_{11}^{-}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{10}^{-}f_{6}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{2}+E_{3}+E_{8})(-E_{1}-E_{2}-E_{7}+E_{3}+E_{6}+E_{9})(-E_{3}-E_{4}-E_{6}-E_{11}+E_{1}+E_{2}+E_{7}+E_{10})(-E_{3}-E_{4}-E_{6}+E_{2}+E_{7}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{10}^{-}f_{6}^{+}f_{11}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{2}+E_{3}+E_{8})(-E_{1}-E_{2}-E_{7}+E_{3}+E_{6}+E_{9})(-E_{1}-E_{2}-E_{7}-E_{10}+E_{3}+E_{4}+E_{6}+E_{11})(-E_{1}-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{6}^{+}-f_{1}^{-}f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{10}^{-}f_{12}^{-}f_{6}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{2}+E_{3}+E_{8})(-E_{1}-E_{2}-E_{7}+E_{3}+E_{6}+E_{9})(-E_{2}-E_{7}-E_{12}+E_{3}+E_{4}+E_{6})(-E_{11}-E_{12}+E_{1}+E_{10})}$$

$$\frac{+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{11}^{-}f_{5}^{+}+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{10}^{-}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{11}^{-}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{3}-E_{8}+E_{1}+E_{2})(-E_{5}-E_{8}+E_{2}+E_{9})(-E_{2}-E_{4}-E_{11}+E_{5}+E_{8}+E_{10})(-E_{3}-E_{4}+E_{5}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{4}^{-}f_{7}^{-}f_{11}^{-}f_{5}^{+}f_{8}^{+}+f_{1}^{-}f_{2}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{10}^{-}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{8}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{2}+E_{3}+E_{8})(-E_{5}-E_{8}+E_{2}+E_{9})(-E_{2}-E_{4}-E_{11}+E_{5}+E_{8}+E_{10})(-E_{1}-E_{2}-E_{4}+E_{5}+E_{8}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{8}^{+}f_{11}^{+}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{10}^{-}f_{8}^{+}f_{11}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{1}-E_{2}+E_{3}+E_{8})(-E_{5}-E_{8}+E_{2}+E_{9})(-E_{5}-E_{8}-E_{10}+E_{2}+E_{4}+E_{11})(-E_{1}-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{10}^{-}f_{11}^{+}-f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{11}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{3}-E_{8}+E_{1}+E_{2})(-E_{5}-E_{8}+E_{2}+E_{9})(-E_{5}-E_{8}-E_{10}+E_{2}+E_{4}+E_{11})(-E_{3}-E_{8}-E_{10}+E_{2}+E_{11}+E_{12})}$$

$$\frac{+f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{11}^{-}f_{12}^{-}-f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{11}^{-}f_{12}^{-}+f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{12}^{-}-f_{2}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{10}^{-}f_{12}^{-}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{3}-E_{8}+E_{1}+E_{2})(-E_{5}-E_{8}+E_{2}+E_{9})(-E_{5}-E_{12}+E_{3}+E_{4})(-E_{2}-E_{11}-E_{12}+E_{3}+E_{8}+E_{10})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{10}^{-}f_{12}^{-}f_{8}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{12}^{-}f_{8}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{2}+E_{3}+E_{8})(-E_{5}-E_{8}+E_{2}+E_{9})(-E_{5}-E_{8}-E_{12}+E_{1}+E_{2}+E_{4})(-E_{11}-E_{12}+E_{1}+E_{10})}$$

$$\frac{+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{7}^{-}f_{8}^{-}f_{11}^{-}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{6}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{3}-E_{8}+E_{1}+E_{2})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{4}-E_{6}-E_{11}+E_{7}+E_{8}+E_{10})(-E_{3}-E_{4}-E_{6}+E_{2}+E_{7}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{4}^{-}f_{7}^{-}f_{10}^{-}f_{6}^{+}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{4}^{-}f_{6}^{-}f_{7}^{-}f_{11}^{-}f_{8}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{2}+E_{3}+E_{8})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{7}-E_{8}-E_{10}+E_{4}+E_{6}+E_{11})(-E_{1}-E_{4}-E_{6}+E_{7}+E_{8}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{10}^{-}f_{6}^{+}f_{8}^{+}f_{11}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{2}+E_{3}+E_{8})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{7}-E_{8}-E_{10}+E_{4}+E_{6}+E_{11})(-E_{1}-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{6}^{+}f_{11}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{3}-E_{8}+E_{1}+E_{2})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{7}-E_{8}-E_{10}+E_{4}+E_{6}+E_{11})(-E_{3}-E_{8}-E_{10}+E_{2}+E_{11}+E_{12})}$$

$$\frac{+f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{12}^{-}f_{6}^{+}-f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{8}^{-}f_{11}^{-}f_{12}^{-}f_{6}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{3}-E_{8}+E_{1}+E_{2})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{2}-E_{7}-E_{12}+E_{3}+E_{4}+E_{6})(-E_{3}-E_{8}-E_{10}+E_{2}+E_{11}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{10}^{-}f_{12}^{-}f_{6}^{+}f_{8}^{+}-f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{6}^{+}f_{8}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{2}+E_{3}+E_{8})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{7}-E_{8}-E_{12}+E_{1}+E_{4}+E_{6})(-E_{1}-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{7}^{+}-f_{1}^{-}f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{7}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{1}-E_{5}-E_{6}+E_{3}+E_{7}+E_{8})(-E_{1}-E_{5}+E_{3}+E_{9})(-E_{3}-E_{4}-E_{11}+E_{1}+E_{5}+E_{10})(-E_{3}-E_{4}+E_{5}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{7}^{+}f_{11}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{1}-E_{5}-E_{6}+E_{3}+E_{7}+E_{8})(-E_{1}-E_{5}+E_{3}+E_{9})(-E_{1}-E_{5}-E_{10}+E_{3}+E_{4}+E_{11})(-E_{1}-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}f_{7}^{+}-f_{1}^{-}f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{12}^{-}f_{7}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{1}-E_{5}-E_{6}+E_{3}+E_{7}+E_{8})(-E_{1}-E_{5}+E_{3}+E_{9})(-E_{5}-E_{12}+E_{3}+E_{4})(-E_{11}-E_{12}+E_{1}+E_{10})}$$

$$\frac{+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{11}^{-}f_{7}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{10}^{-}f_{7}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{3}-E_{7}-E_{8}+E_{1}+E_{5}+E_{6})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{4}-E_{6}-E_{11}+E_{7}+E_{8}+E_{10})(-E_{3}-E_{4}+E_{5}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{7}^{+}f_{8}^{+}-f_{1}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{7}^{+}f_{8}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{1}-E_{5}-E_{6}+E_{3}+E_{7}+E_{8})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{7}-E_{8}-E_{10}+E_{4}+E_{6}+E_{11})(-E_{1}-E_{4}-E_{6}+E_{7}+E_{8}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{7}^{+}f_{8}^{+}f_{11}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{1}-E_{5}-E_{6}+E_{3}+E_{7}+E_{8})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{7}-E_{8}-E_{10}+E_{4}+E_{6}+E_{11})(-E_{1}-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{10}^{-}f_{7}^{+}f_{11}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{3}-E_{7}-E_{8}+E_{1}+E_{5}+E_{6})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{7}-E_{8}-E_{10}+E_{4}+E_{6}+E_{11})(-E_{3}-E_{7}-E_{8}-E_{10}+E_{5}+E_{6}+E_{11}+E_{12})}$$

$$\frac{+f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{11}^{-}f_{12}^{-}f_{7}^{+}-f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{10}^{-}f_{12}^{-}f_{7}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{3}-E_{7}-E_{8}+E_{1}+E_{5}+E_{6})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{5}-E_{12}+E_{3}+E_{4})(-E_{5}-E_{6}-E_{11}-E_{12}+E_{3}+E_{7}+E_{8}+E_{10})}$$

$$\frac{+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}f_{7}^{+}f_{8}^{+}-f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{12}^{-}f_{7}^{+}f_{8}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{1}-E_{5}-E_{6}+E_{3}+E_{7}+E_{8})(-E_{7}-E_{8}+E_{6}+E_{9})(-E_{7}-E_{8}-E_{12}+E_{1}+E_{4}+E_{6})(-E_{11}-E_{12}+E_{1}+E_{10})}$$

$$\frac{+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{5}^{+}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{7}^{-}f_{9}^{-}f_{11}^{-}f_{5}^{+}+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{9}^{-}f_{11}^{-}f_{5}^{+}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{5}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{3}-E_{9}+E_{1}+E_{5})(-E_{2}-E_{9}+E_{5}+E_{8})(-E_{9}-E_{10}+E_{4}+E_{11})(-E_{3}-E_{4}+E_{5}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{11}^{-}f_{9}^{+}-f_{1}^{-}f_{2}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{9}^{+}+f_{1}^{-}f_{2}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{9}^{+}-f_{1}^{-}f_{2}^{-}f_{4}^{-}f_{5}^{-}f_{7}^{-}f_{10}^{-}f_{9}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{5}+E_{3}+E_{9})(-E_{2}-E_{9}+E_{5}+E_{8})(-E_{4}-E_{11}+E_{9}+E_{10})(-E_{1}-E_{4}+E_{9}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{9}^{+}f_{11}^{+}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{10}^{-}f_{9}^{+}f_{11}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{1}-E_{5}+E_{3}+E_{9})(-E_{2}-E_{9}+E_{5}+E_{8})(-E_{9}-E_{10}+E_{4}+E_{11})(-E_{1}-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{5}^{+}f_{11}^{+}-f_{2}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{5}^{+}f_{11}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{3}-E_{9}+E_{1}+E_{5})(-E_{2}-E_{9}+E_{5}+E_{8})(-E_{9}-E_{10}+E_{4}+E_{11})(-E_{3}-E_{9}-E_{10}+E_{5}+E_{11}+E_{12})}$$

$$\frac{+f_{2}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{5}^{+}+f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{5}^{+}-f_{2}^{-}f_{3}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{5}^{+}-f_{2}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{5}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{3}-E_{9}+E_{1}+E_{5})(-E_{2}-E_{9}+E_{5}+E_{8})(-E_{5}-E_{12}+E_{3}+E_{4})(-E_{3}-E_{9}-E_{10}+E_{5}+E_{11}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{9}^{+}+f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{12}^{-}f_{9}^{+}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{10}^{-}f_{12}^{-}f_{9}^{+}-f_{1}^{-}f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}f_{9}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{5}+E_{3}+E_{9})(-E_{2}-E_{9}+E_{5}+E_{8})(-E_{9}-E_{12}+E_{1}+E_{4})(-E_{11}-E_{12}+E_{1}+E_{10})}$$

$$\frac{+f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{11}^{-}f_{7}^{+}-f_{3}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{7}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{3}-E_{9}+E_{1}+E_{5})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{4}-E_{11}+E_{9}+E_{10})(-E_{3}-E_{4}+E_{5}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{7}^{+}f_{9}^{+}-f_{1}^{-}f_{4}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{7}^{+}f_{9}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{1}-E_{5}+E_{3}+E_{9})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{4}+E_{11})(-E_{1}-E_{4}+E_{9}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{7}^{+}f_{9}^{+}f_{11}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{1}-E_{5}+E_{3}+E_{9})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{4}+E_{11})(-E_{1}-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{7}^{+}f_{11}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{3}-E_{9}+E_{1}+E_{5})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{4}+E_{11})(-E_{3}-E_{9}-E_{10}+E_{5}+E_{11}+E_{12})}$$

$$\frac{+f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{7}^{+}-f_{3}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{7}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{3}-E_{9}+E_{1}+E_{5})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{5}-E_{12}+E_{3}+E_{4})(-E_{5}-E_{11}-E_{12}+E_{3}+E_{9}+E_{10})}$$

$$\frac{+f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}f_{7}^{+}f_{9}^{+}-f_{1}^{-}f_{5}^{-}f_{6}^{-}f_{10}^{-}f_{12}^{-}f_{7}^{+}f_{9}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{1}-E_{5}+E_{3}+E_{9})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{9}-E_{12}+E_{1}+E_{4})(-E_{11}-E_{12}+E_{1}+E_{10})}$$

$$\frac{+f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{9}^{-}f_{11}^{-}f_{7}^{+}-f_{2}^{-}f_{3}^{-}f_{4}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{7}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{3}-E_{6}-E_{9}+E_{1}+E_{2}+E_{7})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{4}-E_{11}+E_{9}+E_{10})(-E_{3}-E_{4}-E_{6}+E_{2}+E_{7}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{4}^{-}f_{7}^{-}f_{11}^{-}f_{6}^{+}f_{9}^{+}-f_{1}^{-}f_{2}^{-}f_{4}^{-}f_{7}^{-}f_{10}^{-}f_{6}^{+}f_{9}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{2}-E_{7}+E_{3}+E_{6}+E_{9})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{4}-E_{11}+E_{9}+E_{10})(-E_{1}-E_{4}+E_{9}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{10}^{-}f_{6}^{+}f_{9}^{+}f_{11}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{2}-E_{7}+E_{3}+E_{6}+E_{9})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{4}+E_{11})(-E_{1}-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_{2}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{7}^{+}f_{11}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{3}-E_{6}-E_{9}+E_{1}+E_{2}+E_{7})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{9}-E_{10}+E_{4}+E_{11})(-E_{3}-E_{6}-E_{9}-E_{10}+E_{2}+E_{7}+E_{11}+E_{12})}$$

$$\frac{+f_{2}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{7}^{+}-f_{2}^{-}f_{3}^{-}f_{6}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{7}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{3}-E_{6}-E_{9}+E_{1}+E_{2}+E_{7})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{2}-E_{7}-E_{12}+E_{3}+E_{4}+E_{6})(-E_{3}-E_{6}-E_{9}-E_{10}+E_{2}+E_{7}+E_{11}+E_{12})}$$

$$\frac{+f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{10}^{-}f_{12}^{-}f_{6}^{+}f_{9}^{+}-f_{1}^{-}f_{2}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{6}^{+}f_{9}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{1}-E_{2}-E_{7}+E_{3}+E_{6}+E_{9})(-E_{6}-E_{9}+E_{7}+E_{8})(-E_{9}-E_{12}+E_{1}+E_{4})(-E_{1}-E_{10}+E_{11}+E_{12})}$$

$$\frac{+f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}-f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{8}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}-f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}+f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{8}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{5}-E_{8}+E_{2}+E_{9})(-E_{5}-E_{8}-E_{10}+E_{2}+E_{4}+E_{11})(-E_{5}-E_{12}+E_{3}+E_{4})(-E_{5}-E_{8}-E_{12}+E_{1}+E_{2}+E_{4})}$$

$$\frac{+f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}f_{10}^{+}-f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{11}^{-}f_{12}^{-}f_{8}^{+}f_{10}^{+}}{(-E_{2}-E_{7}+E_{5}+E_{6})(-E_{5}-E_{8}+E_{2}+E_{9})(-E_{5}-E_{8}-E_{10}+E_{2}+E_{4}+E_{11})(-E_{11}-E_{12}+E_{1}+E_{10})(-E_{2}-E_{11}-E_{12}+E_{3}+E_{8}+E_{10})}$$

$$\frac{+f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}-f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{9}^{-}f_{11}^{-}f_{12}^{-}f_{4}^{+}-f_{2}^{-}f_{5}^{-}f_{6}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}+f_{2}^{-}f_{5}^{-}f_{7}^{-}f_{9}^{-}f_{10}^{-}f_{12}^{-}f_{4}^{+}}{(-E_{5}-E_{6}+E_{2}+E_{7})(-E_{2}-E_{9}+E_{5}+E_{8})(-E_{4}-E_{11}+E_{9}+E_{10})(-E_{5}-E_{12}+E_{3}+E_{4})(-E_{9}-E_{12}+E_{1}+E_{4})}$$

$$+\{1,2|V|3,8\}\{3,4|V|5,12\}\{5,6|V|7,10\}\{7,8|V|1,6\}\{9,10|V|11,4\}\{11,12|V|9,2\}\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- -f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- f_2^+ +f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- -f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_2^+ -f_1^- f_2^- f_3^- f_4^- f_5^- f_6^- f_{11}^- +f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- f_2^+ -f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- +f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_2^+}{(-E_3-E_6+E_2+E_7)(-E_1-E_2+E_3+E_8)(-E_2-E_5+E_3+E_{10})(-E_2-E_5-E_9+E_3+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{11}^+ +f_3^- f_5^- f_7^- f_8^- f_9^- f_2^+ f_{11}^+ -f_3^- f_5^- f_6^- f_8^- f_9^- f_2^+ f_{11}^+ -f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{11}^+}{(-E_3-E_6+E_2+E_7)(-E_1-E_2+E_3+E_8)(-E_2-E_5+E_3+E_{10})(-E_2-E_5-E_9+E_3+E_4+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_2^+ +f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^- +f_3^- f_4^- f_6^- f_8^- f_9^- f_{10}^- f_2^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_2^+ -f_3^- f_4^- f_6^- f_8^- f_{10}^- f_{11}^- f_2^+ -f_1^- f_2^- f_3^- f_4^- f_7^- f_{10}^- f_{11}^- +f_1^- f_2^- f_3^- f_4^- f_6^- f_{10}^- f_{11}^- -f_1^- f_2^- f_3^- f_4^- f_6^- f_9^- f_{10}^-}{(-E_2-E_7+E_3+E_6)(-E_3-E_8+E_1+E_2)(-E_3-E_{10}+E_2+E_5)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_{10}+E_{12})} \\
\frac{+f_3^- f_6^- f_8^- f_9^- f_{10}^- f_2^+ f_{11}^+ -f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{11}^+ -f_3^- f_7^- f_8^- f_9^- f_{10}^- f_2^+ f_{11}^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_3-E_6+E_2+E_7)(-E_3-E_8+E_1+E_2)(-E_3-E_{10}+E_2+E_5)(-E_9-E_{10}+E_4+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ +f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- -f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- -f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_2^+ +f_1^- f_2^- f_3^- f_5^- f_7^- f_9^- f_{12}^- -f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^- -f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^- f_2^+ +f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^- f_2^+}{(-E_2-E_7+E_3+E_6)(-E_3-E_8+E_1+E_2)(-E_2-E_5+E_3+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_2^+ -f_1^- f_2^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- +f_1^- f_2^- f_3^- f_6^- f_{10}^- f_{11}^- f_{12}^- -f_3^- f_6^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_2^+ +f_3^- f_6^- f_8^- f_9^- f_{10}^- f_{12}^- f_2^+ -f_3^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^- f_2^+ +f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- -f_1^- f_2^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^-}{(-E_2-E_7+E_3+E_6)(-E_3-E_8+E_1+E_2)(-E_3-E_{10}+E_2+E_5)(-E_{10}-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_3^- f_4^- f_6^- f_{11}^- f_9^+ +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_9^+ -f_1^- f_2^- f_3^- f_4^- f_7^- f_{11}^- f_9^+ -f_3^- f_4^- f_6^- f_8^- f_{11}^- f_2^+ f_9^+}{(-E_3-E_6+E_2+E_7)(-E_1-E_2+E_3+E_8)(-E_3-E_4-E_{11}+E_2+E_5+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_4^- f_6^- f_9^- f_{12}^+ +f_1^- f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_{12}^+ +f_3^- f_4^- f_6^- f_8^- f_{11}^- f_2^+ f_{12}^+ -f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^+ -f_1^- f_2^- f_3^- f_4^- f_6^- f_{11}^- f_{12}^+ +f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_{12}^+ -f_3^- f_4^- f_6^- f_8^- f_9^- f_2^+ f_{12}^+}{(-E_3-E_6+E_2+E_7)(-E_1-E_2+E_3+E_8)(-E_3-E_4+E_5+E_{12})(-E_2-E_4+E_{10}+E_{12})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_9^- f_7^+ +f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_6^+ -f_1^- f_3^- f_4^- f_5^- f_6^- f_{11}^- f_7^+ -f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_6^+}{(-E_3-E_6+E_2+E_7)(-E_1-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_4+E_7+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_5^- f_7^- f_9^- f_6^+ +f_2^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_6^+ -f_2^- f_4^- f_5^- f_7^- f_8^- f_9^- f_6^+ -f_1^- f_2^- f_4^- f_5^- f_7^- f_{11}^- f_6^+}{(-E_2-E_7+E_3+E_6)(-E_1-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_4+E_7+E_{11})(-E_2-E_4-E_7+E_5+E_6+E_{12})} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_9^- f_6^+ f_{11}^+ -f_1^- f_2^- f_5^- f_7^- f_9^- f_6^+ f_{11}^+}{(-E_2-E_7+E_3+E_6)(-E_7-E_8+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_4+E_7+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_9^- f_7^+ f_{11}^+ -f_3^- f_5^- f_7^- f_8^- f_9^- f_6^+ f_{11}^+}{(-E_3-E_6+E_2+E_7)(-E_1-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_4+E_7+E_{11})(-E_3-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_7^- f_{10}^- f_{11}^- f_6^+ -f_2^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ -f_1^- f_2^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ +f_2^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_2-E_7+E_3+E_6)(-E_1-E_6+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_4+E_{10}+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^- f_6^+ +f_1^- f_3^- f_4^- f_6^- f_9^- f_{10}^- f_7^+ -f_1^- f_3^- f_4^- f_6^- f_{10}^- f_{11}^- f_7^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- f_6^+}{(-E_3-E_6+E_2+E_7)(-E_7-E_8+E_1+E_6)(-E_7-E_{10}+E_5+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ f_{11}^+ -f_1^- f_2^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_2-E_7+E_3+E_6)(-E_7-E_8+E_1+E_6)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_9^- f_{10}^- f_7^+ f_{11}^+ -f_3^- f_7^- f_8^- f_9^- f_{10}^- f_6^+ f_{11}^+}{(-E_3-E_6+E_2+E_7)(-E_1-E_6+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^- f_7^+ -f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^- f_6^+ +f_1^- f_3^- f_5^- f_6^- f_9^- f_{12}^- f_7^+}{(-E_3-E_6+E_2+E_7)(-E_7-E_8+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_7-E_{11}-E_{12}+E_3+E_6+E_9)} \\
\frac{+f_2^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_6^+ +f_1^- f_2^- f_5^- f_7^- f_9^- f_{12}^- f_6^+ -f_2^- f_5^- f_7^- f_8^- f_9^- f_{12}^- f_6^+}{(-E_2-E_7+E_3+E_6)(-E_7-E_8+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_{12}+E_2+E_4+E_7)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_2^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^- f_6^+ -f_2^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ +f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+}{(-E_2-E_7+E_3+E_6)(-E_7-E_8+E_1+E_6)(-E_7-E_{10}+E_5+E_6)(-E_{10}-E_{12}+E_2+E_4)(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_7^+ +f_3^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^- f_6^+ -f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_6^+ -f_1^- f_3^- f_6^- f_9^- f_{10}^- f_{12}^- f_7^+}{(-E_3-E_6+E_2+E_7)(-E_1-E_6+E_7+E_8)(-E_7-E_{10}+E_5+E_6)(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)(-E_7-E_{11}-E_{12}+E_3+E_6+E_9)} \\
\frac{+f_1^- f_2^- f_4^- f_7^- f_{11}^- f_6^+ f_9^+ -f_2^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_2-E_7+E_3+E_6)(-E_1-E_6+E_7+E_8)(-E_4-E_7-E_{11}+E_5+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_{11}^- f_7^+ f_9^+ -f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_9^+}{(-E_3-E_6+E_2+E_7)(-E_1-E_6+E_7+E_8)(-E_4-E_7-E_{11}+E_5+E_6+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_7^+ f_{12}^+ +f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_{12}^+ -f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+ -f_1^- f_3^- f_4^- f_6^- f_{11}^- f_7^+ f_{12}^+}{(-E_3-E_6+E_2+E_7)(-E_1-E_6+E_7+E_8)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_6+E_7+E_{10}+E_{12})(-E_3-E_6-E_9+E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_7^- f_9^- f_6^+ f_{12}^+ -f_1^- f_2^- f_4^- f_7^- f_{11}^- f_6^+ f_{12}^+ +f_2^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_{12}^+ -f_2^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{12}^+}{(-E_2-E_7+E_3+E_6)(-E_1-E_6+E_7+E_8)(-E_2-E_4-E_7+E_5+E_6+E_{12})(-E_2-E_4+E_{10}+E_{12})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- +f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- -f_1^- f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- -f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_9^-}{(-E_3-E_8+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_5-E_8+E_1+E_{10})(-E_5-E_8-E_9+E_1+E_4+E_{11})(-E_3-E_4+E_5+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_5^- f_6^- f_9^- f_8^+ +f_1^- f_2^- f_4^- f_5^- f_7^- f_{11}^- f_8^+ -f_1^- f_2^- f_4^- f_5^- f_6^- f_{11}^- f_8^+ -f_1^- f_2^- f_4^- f_5^- f_7^- f_9^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_6+E_7+E_8)(-E_5-E_8+E_1+E_{10})(-E_5-E_8-E_9+E_1+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_8+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_9^- f_8^+ f_{11}^+ -f_1^- f_2^- f_5^- f_6^- f_9^- f_8^+ f_{11}^+}{(-E_1-E_2+E_3+E_8)(-E_7-E_8+E_1+E_6)(-E_5-E_8+E_1+E_{10})(-E_5-E_8-E_9+E_1+E_4+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{11}^+ -f_1^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{11}^+}{(-E_3-E_8+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_5-E_8+E_1+E_{10})(-E_5-E_8-E_9+E_1+E_4+E_{11})(-E_3-E_8-E_9+E_1+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_7^- f_9^- f_{10}^- f_8^+ +f_1^- f_2^- f_4^- f_6^- f_{10}^- f_{11}^- f_8^+ -f_1^- f_2^- f_4^- f_7^- f_{10}^- f_{11}^- f_8^+ -f_1^- f_2^- f_4^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_7-E_8+E_1+E_6)(-E_1-E_{10}+E_5+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_2-E_4+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{10}^- -f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^- -f_1^- f_3^- f_4^- f_6^- f_8^- f_{10}^- f_{11}^- +f_1^- f_3^- f_4^- f_7^- f_8^- f_{10}^- f_{11}^-}{(-E_3-E_8+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_1-E_{10}+E_5+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_9^- f_{10}^- f_8^+ f_{11}^+ -f_1^- f_2^- f_7^- f_9^- f_{10}^- f_8^+ f_{11}^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_6+E_7+E_8)(-E_1-E_{10}+E_5+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_8^- f_9^- f_{10}^- f_{11}^+ -f_1^- f_3^- f_7^- f_8^- f_9^- f_{10}^- f_{11}^+}{(-E_3-E_8+E_1+E_2)(-E_1-E_6+E_7+E_8)(-E_1-E_{10}+E_5+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_3-E_8-E_9+E_1+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- -f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- -f_1^- f_3^- f_5^- f_7^- f_8^- f_9^- f_{12}^- +f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^-}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_1+E_6)(-E_5-E_8+E_1+E_{10})(-E_5-E_{12}+E_3+E_4)(-E_1-E_{11}-E_{12}+E_3+E_8+E_9)} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+ -f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_8^+ +f_1^- f_2^- f_5^- f_7^- f_9^- f_{12}^- f_8^+ -f_1^- f_2^- f_5^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_6+E_7+E_8)(-E_5-E_8+E_1+E_{10})(-E_5-E_8-E_{12}+E_1+E_2+E_4)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_2^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_8^+ -f_1^- f_2^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_8^+ +f_1^- f_2^- f_6^- f_9^- f_{10}^- f_{12}^- f_8^+ -f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_7-E_8+E_1+E_6)(-E_1-E_{10}+E_5+E_8)(-E_{10}-E_{12}+E_2+E_4)(-E_{11}-E_{12}+E_2+E_9)} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^- -f_1^- f_3^- f_6^- f_8^- f_{10}^- f_{11}^- f_{12}^- -f_1^- f_3^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^- +f_1^- f_3^- f_6^- f_8^- f_9^- f_{10}^- f_{12}^-}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_1+E_6)(-E_1-E_{10}+E_5+E_8)(-E_1-E_{10}-E_{12}+E_3+E_4+E_8)(-E_1-E_{11}-E_{12}+E_3+E_8+E_9)} \\
\frac{+f_1^- f_2^- f_4^- f_6^- f_{11}^- f_8^+ f_9^+ -f_1^- f_2^- f_4^- f_7^- f_{11}^- f_8^+ f_9^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_6+E_7+E_8)(-E_1-E_4-E_{11}+E_5+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_9^+ -f_1^- f_3^- f_4^- f_6^- f_8^- f_{11}^- f_9^+}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_1+E_6)(-E_1-E_4-E_{11}+E_5+E_8+E_9)(-E_4-E_{11}+E_9+E_{10})(-E_3-E_8-E_9+E_1+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^+ -f_1^- f_3^- f_4^- f_6^- f_8^- f_{11}^- f_{12}^+ -f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^+ +f_1^- f_3^- f_4^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_1+E_6)(-E_3-E_4+E_5+E_{12})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})(-E_1-E_{11}-E_{12}+E_3+E_8+E_9)} \\
\frac{+f_1^- f_2^- f_4^- f_6^- f_9^- f_8^+ f_{12}^+ +f_1^- f_2^- f_4^- f_7^- f_{11}^- f_8^+ f_{12}^+ -f_1^- f_2^- f_4^- f_6^- f_{11}^- f_8^+ f_{12}^+ -f_1^- f_2^- f_4^- f_7^- f_9^- f_8^+ f_{12}^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_6+E_7+E_8)(-E_1-E_2-E_4+E_5+E_8+E_{12})(-E_2-E_4+E_{10}+E_{12})(-E_2-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{12}^- f_4^+ f_7^+ -f_5^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ f_6^+ +f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ f_6^+ -f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_4^+ f_7^+}{(-E_1-E_6+E_7+E_8)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_4+E_7+E_{11})(-E_5-E_{12}+E_3+E_4)(-E_5-E_6-E_{12}+E_2+E_4+E_7)} \\
\frac{+f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ f_9^+ -f_1^- f_5^- f_7^- f_{11}^- f_{12}^- f_6^+ f_9^+}{(-E_7-E_8+E_1+E_6)(-E_5-E_6+E_7+E_{10})(-E_5-E_6-E_9+E_4+E_7+E_{11})(-E_{11}-E_{12}+E_2+E_9)(-E_7-E_{11}-E_{12}+E_3+E_6+E_9)} \\
\frac{+f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+ -f_7^- f_8^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ +f_1^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_6^+ -f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_6^+}{(-E_7-E_8+E_1+E_6)(-E_7-E_{10}+E_5+E_6)(-E_4-E_{11}+E_9+E_{10})(-E_{10}-E_{12}+E_2+E_4)(-E_7-E_{10}-E_{12}+E_3+E_4+E_6)} \\
\frac{+f_7^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_6^+ f_9^+ -f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ f_9^+}{(-E_7-E_8+E_1+E_6)(-E_7-E_{10}+E_5+E_6)(-E_9-E_{10}+E_4+E_{11})(-E_{11}-E_{12}+E_2+E_9)(-E_7-E_{11}-E_{12}+E_3+E_6+E_9)} \\
\frac{+f_1^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ +f_1^- f_5^- f_6^- f_8^- f_9^- f_{12}^- f_4^+ -f_1^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^- f_4^+ -f_1^- f_5^- f_7^- f_8^- f_9^- f_{12}^- f_4^+}{(-E_7-E_8+E_1+E_6)(-E_5-E_8+E_1+E_{10})(-E_1-E_4-E_{11}+E_5+E_8+E_9)(-E_5-E_{12}+E_3+E_4)(-E_5-E_8-E_{12}+E_1+E_2+E_4)} \\
\frac{+f_1^- f_5^- f_7^- f_{11}^- f_{12}^- f_8^+ f_9^+ -f_1^- f_5^- f_6^- f_{11}^- f_{12}^- f_8^+ f_9^+}{(-E_7-E_8+E_1+E_6)(-E_5-E_8+E_1+E_{10})(-E_5-E_8-E_9+E_1+E_4+E_{11})(-E_{11}-E_{12}+E_2+E_9)(-E_1-E_{11}-E_{12}+E_3+E_8+E_9)} \\
\frac{+f_1^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+ +f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+ -f_1^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_4^+ f_8^+ -f_1^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+}{(-E_1-E_6+E_7+E_8)(-E_1-E_{10}+E_5+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_{10}-E_{12}+E_2+E_4)(-E_1-E_{10}-E_{12}+E_3+E_4+E_8)} \\
\frac{+f_1^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_8^+ f_9^+ -f_1^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_8^+ f_9^+}{(-E_1-E_6+E_7+E_8)(-E_1-E_{10}+E_5+E_8)(-E_9-E_{10}+E_4+E_{11})(-E_{11}-E_{12}+E_2+E_9)(-E_1-E_{11}-E_{12}+E_3+E_8+E_9)}
\end{array}\right.$$

$$
\left(
\begin{gathered}
\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_6^- f_7^-}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_6-E_7+E_1+E_2+E_{11})(-E_1-E_2+E_3+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_6-E_7+E_1+E_2+E_{11})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_4^- f_6^- f_9^- f_5^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_1-E_2+E_3+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_5^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_1-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_{10}^- f_4^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_5-E_6-E_7-E_{10}+E_1+E_2+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_5-E_6-E_7-E_{10}+E_1+E_2+E_4+E_{11})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_6^- f_7^- f_{12}^-}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_6^- f_9^- f_{12}^- f_5^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_3-E_4+E_5+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_1-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_7^- f_{10}^- f_{12}^- f_4^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_1-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_3-E_6-E_7+E_1+E_9+E_{10})(-E_3-E_6-E_7+E_1+E_2+E_{11})(-E_1-E_2+E_3+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_9^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_3-E_6-E_7+E_1+E_9+E_{10})(-E_3-E_6-E_7+E_1+E_2+E_{11})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_9^- f_{10}^- f_6^+ f_7^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_9-E_{10}+E_3+E_6+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_6-E_7+E_9+E_{10}+E_{12})} \\
\frac{+f_1^- f_5^- f_9^- f_{10}^- f_6^+ f_7^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_9-E_{10}+E_3+E_6+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_{12}^- f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_3-E_6-E_7+E_1+E_9+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+ f_7^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_9-E_{10}+E_3+E_6+E_7)(-E_9-E_{10}-E_{12}+E_2+E_6+E_7)(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_5^- f_{11}^- f_6^+ f_7^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_2-E_{11}+E_3+E_6+E_7)(-E_1-E_2-E_4-E_{11}+E_5+E_6+E_7+E_{10})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_{11}^- f_6^+ f_7^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_2-E_{11}+E_3+E_6+E_7)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_9^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_2-E_5-E_{11}+E_3+E_4+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_5^- f_6^- f_7^- f_{12}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_2+E_3+E_{12})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_6^- f_9^- f_5^+ f_{12}^+}{(-E_5-E_6+E_1+E_8)(-E_1-E_4-E_9+E_5+E_6+E_7)(-E_1-E_2+E_3+E_{12})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})(-E_1-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_9^+ f_{12}^+}{(-E_5-E_6+E_1+E_8)(-E_5-E_6-E_7+E_1+E_4+E_9)(-E_1-E_2+E_3+E_{12})(-E_2-E_6-E_7+E_9+E_{10}+E_{12})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_8^- f_5^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_1-E_2+E_3+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_7^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_2-E_5-E_6+E_3+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_8^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_5^+ f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_7-E_8+E_2+E_5+E_{11})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_4^- f_8^- f_9^- f_5^+}{(-E_1-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_1-E_2+E_3+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_2-E_5-E_6+E_3+E_8+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_5^+ f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_1-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_8^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_4-E_9+E_2+E_5+E_{11})(-E_4-E_6-E_9+E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_7^- f_8^- f_{10}^- f_4^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_8^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_2-E_4-E_6+E_8+E_{10}+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_{10}^- f_4^+ f_8^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_7^- f_8^- f_{10}^- f_4^+ f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_7-E_8-E_{10}+E_2+E_4+E_{11})(-E_1-E_7-E_8+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_8^- f_9^- f_{10}^- f_4^+}{(-E_1-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_2-E_4+E_5+E_{10}+E_{12})} \\
\frac{+f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+}{(-E_5-E_6+E_1+E_8)(-E_4-E_9+E_7+E_8)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_4-E_6+E_8+E_{10}+E_{12})} \\
\frac{+f_1^- f_5^- f_8^- f_9^- f_{10}^- f_4^+ f_{11}^+}{(-E_1-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_1-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_8^+ f_{11}^+}{(-E_5-E_6+E_1+E_8)(-E_4-E_9+E_7+E_8)(-E_5-E_{10}+E_3+E_4)(-E_9-E_{10}+E_2+E_{11})(-E_4-E_6-E_9+E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{12}^- f_5^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_1-E_7-E_8+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_8^- f_9^- f_{12}^- f_5^+}{(-E_1-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_{12}+E_1+E_2)(-E_1-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_7^- f_{12}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_4+E_9)(-E_3-E_4+E_5+E_{10})(-E_3-E_8-E_{12}+E_2+E_5+E_6)(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_6^- f_9^- f_{12}^- f_8^+}{(-E_5-E_6+E_1+E_8)(-E_4-E_9+E_7+E_8)(-E_3-E_4+E_5+E_{10})(-E_3-E_8-E_{12}+E_2+E_5+E_6)(-E_4-E_6-E_9+E_8+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_7^- f_8^- f_{10}^- f_{12}^- f_4^+}{(-E_1-E_8+E_5+E_6)(-E_7-E_8+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_1-E_7-E_8+E_5+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_4^+}{(-E_1-E_8+E_5+E_6)(-E_4-E_9+E_7+E_8)(-E_5-E_{10}+E_3+E_4)(-E_5-E_{10}-E_{12}+E_1+E_2+E_4)(-E_1-E_4-E_9+E_5+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_7^- f_{10}^- f_{12}^- f_4^+ f_8^+}{(-E_5-E_6+E_1+E_8)(-E_7-E_8+E_4+E_9)(-E_5-E_{10}+E_3+E_4)(-E_8-E_{10}-E_{12}+E_2+E_4+E_6)(-E_6-E_7+E_{11}+E_{12})} \\
\frac{+f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ f_8^+}{(-E_5-E_6+E_1+E_8)(-E_4-E_9+E_7+E_8)(-E_5-E_{10}+E_3+E_4)(-E_8-E_{10}-E_{12}+E_2+E_4+E_6)(-E_4-E_6-E_9+E_8+E_{11}+E_{12})}
\end{gathered}
\right.
$$

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+\frac{1}{6}\{1,2|V|3,8\}\{3,4|V|1,6\}\{5,6|V|7,12\}\{7,8|V|5,10\}\{9,10|V|11,2\}\{11,12|V|9,4\}\left(\begin{array}{r}
\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_5+E_{10})(-E_1-E_7-E_9+E_3+E_5+E_{11})(-E_3-E_4-E_5+E_1+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_9^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_7^- f_{11}^-}{(-E_1-E_6+E_3+E_4)(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_5+E_{10})(-E_1-E_7-E_9+E_3+E_5+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{10}^+ - f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{10}^+ - f_1^- f_2^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- + f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_5+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_4+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_{11}^- f_3^+ f_{10}^+ - f_1^- f_2^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- + f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{10}^- - f_1^- f_2^- f_6^- f_7^- f_9^- f_3^+ f_{10}^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_5+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_1-E_2-E_6+E_3+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- - f_1^- f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_5+E_{10})(-E_1-E_7-E_9+E_3+E_5+E_{11})(-E_3-E_4-E_5+E_1+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- - f_1^- f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^-}{(-E_1-E_6+E_3+E_4)(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_5+E_{10})(-E_1-E_7-E_9+E_3+E_5+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{10}^+ - f_1^- f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{11}^- - f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{10}^+ + f_1^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^-}{(-E_3-E_4+E_1+E_6)(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_5+E_{10})(-E_3-E_8-E_{11}+E_1+E_9+E_{10})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^- + f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^- - f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{10}^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_5+E_{10})(-E_3-E_8-E_{11}+E_1+E_9+E_{10})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_4^- f_5^- f_{11}^- f_9^+ - f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_8)(-E_3-E_5-E_{11}+E_1+E_7+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_9^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_3^+ f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_2+E_3+E_8)(-E_3-E_5-E_{11}+E_1+E_7+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_1-E_6-E_9+E_3+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{11}^+ - f_3^- f_4^- f_5^- f_8^- f_{11}^- f_1^+ f_9^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_8+E_1+E_2)(-E_1-E_7-E_9+E_3+E_5+E_{11})(-E_3-E_8-E_{11}+E_1+E_9+E_{10})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{11}^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_9^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_8+E_1+E_2)(-E_1-E_7-E_9+E_3+E_5+E_{11})(-E_3-E_8-E_{11}+E_1+E_9+E_{10})(-E_1-E_6-E_9+E_3+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_4^- f_5^- f_9^- f_{12}^+ + f_1^- f_2^- f_3^- f_4^- f_5^- f_{11}^- f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_2+E_3+E_8)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_2-E_4+E_{10}+E_{12})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_9^- f_1^+ f_{12}^+ - f_1^- f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- - f_3^- f_4^- f_5^- f_8^- f_{11}^- f_1^+ f_{12}^+ + f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_8+E_1+E_2)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_3-E_4-E_8+E_1+E_{10}+E_{12})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_6^- f_7^- f_9^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_6^- f_9^- f_{12}^+ - f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_6^+ + f_1^- f_2^- f_3^- f_5^- f_6^- f_{11}^- f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_2+E_3+E_8)(-E_7-E_{12}+E_5+E_6)(-E_1-E_2-E_6+E_3+E_{10}+E_{12})(-E_1-E_6-E_9+E_3+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_8^- f_9^- f_{12}^+ - f_1^- f_3^- f_6^- f_7^- f_8^- f_9^- f_{12}^- + f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_3^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_8+E_1+E_2)(-E_5-E_6+E_7+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_1-E_6-E_9+E_3+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_7^- f_9^- f_6^+ - f_2^- f_3^- f_4^- f_5^- f_7^- f_{11}^- f_6^+ + f_1^- f_2^- f_5^- f_6^- f_7^- f_{11}^- f_4^+ - f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_2-E_4+E_6+E_8)(-E_2-E_4-E_7+E_5+E_6+E_{10})(-E_4-E_7-E_9+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ - f_1^- f_2^- f_4^- f_6^- f_7^- f_9^- f_{10}^+ + f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+ f_{10}^+ + f_1^- f_2^- f_4^- f_6^- f_7^- f_{11}^- f_{10}^+ - f_2^- f_3^- f_4^- f_7^- f_{11}^- f_6^+ f_{10}^+ + f_2^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_6^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_4+E_6+E_8)(-E_5-E_6-E_{10}+E_2+E_4+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_2-E_4+E_{10}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_7^- f_8^- f_9^- f_4^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_6^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_6^+ - f_1^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_4^+}{(-E_1-E_6+E_3+E_4)(-E_6-E_8+E_2+E_4)(-E_7-E_8+E_5+E_{10})(-E_4-E_7-E_9+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{11}^- f_6^+ - f_1^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{10}^+ - f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- f_6^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_6^+ f_{10}^+ + f_1^- f_6^- f_7^- f_8^- f_{11}^- f_4^+ f_{10}^+ - f_1^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^- f_4^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{10}^+ + f_1^- f_5^- f_6^- f_8^- f_9^- f_{10}^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_6-E_8+E_2+E_4)(-E_5-E_{10}+E_7+E_8)(-E_6-E_8-E_{11}+E_4+E_9+E_{10})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_6^- f_7^- f_9^- f_{11}^+ - f_2^- f_3^- f_4^- f_7^- f_9^- f_6^+ f_{11}^+ - f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_9^+ + f_2^- f_3^- f_4^- f_5^- f_{11}^- f_6^+ f_9^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_4+E_6+E_8)(-E_4-E_7-E_9+E_5+E_6+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_8^- f_9^- f_4^+ f_{11}^+ + f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- f_9^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_6^+ f_{11}^+ - f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_9^+}{(-E_1-E_6+E_3+E_4)(-E_6-E_8+E_2+E_4)(-E_4-E_7-E_9+E_5+E_6+E_{11})(-E_6-E_8-E_{11}+E_4+E_9+E_{10})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_6^- f_7^- f_{11}^- f_{12}^- f_4^+ - f_2^- f_3^- f_4^- f_7^- f_{11}^- f_{12}^- f_6^+ + f_2^- f_3^- f_4^- f_5^- f_{11}^- f_6^+ f_{12}^+ - f_1^- f_2^- f_5^- f_6^- f_{11}^- f_4^+ f_{12}^+ + f_2^- f_3^- f_4^- f_7^- f_9^- f_{12}^- f_6^+ + f_1^- f_2^- f_5^- f_6^- f_9^- f_4^+ f_{12}^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_{12}^- f_4^+ - f_2^- f_3^- f_4^- f_5^- f_9^- f_6^+ f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_2-E_4+E_6+E_8)(-E_7-E_{12}+E_5+E_6)(-E_2-E_4+E_{10}+E_{12})(-E_{11}-E_{12}+E_4+E_9)} \\
\frac{+f_1^- f_6^- f_7^- f_8^- f_{11}^- f_{12}^- f_4^+ + f_3^- f_4^- f_5^- f_6^- f_8^- f_{11}^- f_{12}^+ - f_1^- f_5^- f_6^- f_8^- f_{11}^- f_4^+ f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_{11}^- f_{12}^- f_6^+ + f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- f_6^+ - f_1^- f_6^- f_7^- f_8^- f_9^- f_{12}^- f_4^+ + f_1^- f_5^- f_6^- f_8^- f_9^- f_4^+ f_{12}^+ - f_3^- f_4^- f_5^- f_6^- f_8^- f_9^- f_{12}^+}{(-E_1-E_6+E_3+E_4)(-E_6-E_8+E_2+E_4)(-E_7-E_{12}+E_5+E_6)(-E_6-E_8+E_{10}+E_{12})(-E_{11}-E_{12}+E_4+E_9)} \\
\frac{+f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_7^+ - f_1^- f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_7^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_5-E_{10}+E_1+E_2+E_7)(-E_5-E_{10}+E_7+E_8)(-E_1-E_7-E_9+E_3+E_5+E_{11})(-E_3-E_4-E_5+E_1+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_6^- f_{10}^- f_{11}^- f_7^+ - f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_7^+}{(-E_1-E_6+E_3+E_4)(-E_3-E_5-E_{10}+E_1+E_2+E_7)(-E_5-E_{10}+E_7+E_8)(-E_3-E_5-E_{11}+E_1+E_7+E_9)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_6^+ f_7^+ + f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_4^+ f_7^+ - f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_6^+ f_7^+ - f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_7^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6-E_{10}+E_2+E_4+E_7)(-E_5-E_{10}+E_7+E_8)(-E_4-E_7-E_9+E_5+E_6+E_{11})(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{11}^+ - f_1^- f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_1-E_7-E_9+E_3+E_5+E_{11})(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_8+E_{11})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_6^- f_7^- f_9^- f_{10}^- f_3^+ f_{11}^+ - f_1^- f_3^- f_5^- f_6^- f_9^- f_{10}^- f_{11}^+}{(-E_1-E_6+E_3+E_4)(-E_1-E_7-E_9+E_3+E_5+E_{11})(-E_9-E_{10}+E_2+E_{11})(-E_1-E_9-E_{10}+E_3+E_8+E_{11})(-E_1-E_6-E_9+E_3+E_{11}+E_{12})} \\
\frac{+f_3^- f_4^- f_5^- f_9^- f_{10}^- f_6^+ f_{11}^+ - f_1^- f_5^- f_6^- f_9^- f_{10}^- f_4^+ f_{11}^+ - f_3^- f_4^- f_7^- f_9^- f_{10}^- f_6^+ f_{11}^+ + f_1^- f_4^- f_6^- f_7^- f_9^- f_{10}^- f_{11}^+}{(-E_3-E_4+E_1+E_6)(-E_5-E_6-E_{11}+E_4+E_7+E_9)(-E_9-E_{10}+E_2+E_{11})(-E_4-E_9-E_{10}+E_6+E_8+E_{11})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_4^+}{(-E_3-E_4+E_1+E_6)(-E_3-E_4-E_5+E_1+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_4)(-E_1-E_{10}-E_{12}+E_3+E_4+E_8)(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_5^- f_6^- f_9^- f_{10}^- f_{12}^- f_4^+ - f_3^- f_4^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ + f_3^- f_4^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_3^- f_4^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_1^- f_6^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_4^+ - f_1^- f_6^- f_7^- f_9^- f_{10}^- f_{12}^- f_4^+ + f_3^- f_4^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+ - f_1^- f_5^- f_6^- f_{10}^- f_{11}^- f_{12}^- f_4^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_{10}-E_{12}+E_2+E_4)(-E_{10}-E_{12}+E_6+E_8)(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_3^- f_7^- f_{10}^- f_{11}^- f_{12}^- f_6^+ - f_1^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- f_6^+ + f_1^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- f_6^+}{(-E_1-E_6+E_3+E_4)(-E_5-E_6+E_7+E_{12})(-E_3-E_{10}-E_{12}+E_1+E_2+E_6)(-E_{10}-E_{12}+E_6+E_8)(-E_3-E_{11}-E_{12}+E_1+E_6+E_9)} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_7^- f_{11}^- f_8^+ + f_3^- f_5^- f_6^- f_7^- f_8^- f_9^- f_2^+ - f_1^- f_2^- f_5^- f_6^- f_7^- f_9^- f_8^+ - f_3^- f_5^- f_6^- f_7^- f_8^- f_{11}^- f_2^+}{(-E_1-E_2+E_3+E_8)(-E_6-E_8+E_2+E_4)(-E_7-E_8+E_5+E_{10})(-E_2-E_5-E_{11}+E_7+E_8+E_9)(-E_5-E_6+E_7+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_5^- f_7^- f_9^- f_8^+ - f_3^- f_4^- f_5^- f_7^- f_8^- f_9^- f_2^+ + f_3^- f_4^- f_5^- f_7^- f_8^- f_{11}^- f_2^+ - f_1^- f_2^- f_4^- f_5^- f_7^- f_{11}^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_2-E_4+E_6+E_8)(-E_7-E_8+E_5+E_{10})(-E_7-E_8-E_9+E_2+E_5+E_{11})(-E_2-E_4-E_5+E_7+E_8+E_{12})} \\
\frac{+f_3^- f_4^- f_7^- f_8^- f_{11}^- f_2^+ f_{10}^+ - f_1^- f_2^- f_4^- f_7^- f_{11}^- f_8^+ f_{10}^+ - f_3^- f_4^- f_5^- f_8^- f_{10}^- f_{11}^- f_2^+ + f_1^- f_2^- f_4^- f_5^- f_{10}^- f_{11}^- f_8^+ + f_1^- f_2^- f_4^- f_7^- f_9^- f_8^+ f_{10}^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_{10}^+ + f_3^- f_4^- f_5^- f_8^- f_9^- f_{10}^- f_2^+ - f_1^- f_2^- f_4^- f_5^- f_9^- f_{10}^- f_8^+}{(-E_3-E_8+E_1+E_2)(-E_2-E_4+E_6+E_8)(-E_7-E_8+E_5+E_{10})(-E_2-E_{11}+E_9+E_{10})(-E_2-E_4+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_{10}^- f_{11}^- f_8^+ - f_1^- f_2^- f_6^- f_7^- f_8^- f_{11}^- f_{10}^+ + f_3^- f_6^- f_7^- f_8^- f_{11}^- f_2^+ f_{10}^+ - f_3^- f_5^- f_6^- f_8^- f_{10}^- f_{11}^- f_2^+ - f_3^- f_6^- f_7^- f_8^- f_9^- f_2^+ f_{10}^+ + f_1^- f_2^- f_6^- f_7^- f_8^- f_9^- f_{10}^+ + f_3^- f_5^- f_6^- f_8^- f_9^- f_{10}^- f_2^+ - f_1^- f_2^- f_5^- f_6^- f_9^- f_{10}^- f_8^+}{(-E_1-E_2+E_3+E_8)(-E_6-E_8+E_2+E_4)(-E_5-E_{10}+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_8+E_{10}+E_{12})} \\
\frac{+f_1^- f_2^- f_4^- f_7^- f_9^- f_8^+ f_{11}^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_2^+ f_{11}^+ - f_1^- f_2^- f_4^- f_5^- f_{11}^- f_8^+ f_9^+ + f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_9^+}{(-E_1-E_2+E_3+E_8)(-E_2-E_4+E_6+E_8)(-E_7-E_8-E_9+E_2+E_5+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_3^- f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_9^+ - f_3^- f_6^- f_7^- f_8^- f_9^- f_2^+ f_{11}^+ + f_1^- f_2^- f_6^- f_7^- f_8^- f_9^- f_{11}^+ - f_1^- f_2^- f_5^- f_6^- f_{11}^- f_8^+ f_9^+}{(-E_3-E_8+E_1+E_2)(-E_6-E_8+E_2+E_4)(-E_2-E_5-E_{11}+E_7+E_8+E_9)(-E_2-E_{11}+E_9+E_{10})(-E_6-E_8-E_9+E_2+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_5^- f_6^- f_9^- f_8^+ f_{12}^+ - f_3^- f_5^- f_6^- f_8^- f_9^- f_2^+ f_{12}^+ - f_1^- f_2^- f_6^- f_7^- f_9^- f_{12}^- f_8^+ + f_3^- f_5^- f_6^- f_8^- f_{11}^- f_2^+ f_{12}^+ - f_1^- f_2^- f_5^- f_6^- f_{11}^- f_8^+ f_{12}^+ - f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ f_6^+ + f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_6^+ f_8^+ + f_3^- f_6^- f_7^- f_8^- f_9^- f_{12}^- f_2^+}{(-E_1-E_2+E_3+E_8)(-E_6-E_8+E_2+E_4)(-E_5-E_6+E_7+E_{12})(-E_6-E_8+E_{10}+E_{12})(-E_6-E_8-E_9+E_2+E_{11}+E_{12})} \\
\frac{+f_2^- f_3^- f_4^- f_5^- f_8^- f_9^- f_{12}^+ + f_1^- f_2^- f_4^- f_7^- f_9^- f_{12}^- f_8^+ - f_1^- f_2^- f_4^- f_5^- f_9^- f_8^+ f_{12}^+ - f_3^- f_4^- f_7^- f_8^- f_9^- f_{12}^- f_2^+ + f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ f_4^+ - f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_4^+ f_8^+ - f_2^- f_3^- f_4^- f_5^- f_8^- f_{11}^- f_{12}^+ + f_1^- f_2^- f_4^- f_5^- f_{11}^- f_8^+ f_{12}^+}{(-E_3-E_8+E_1+E_2)(-E_2-E_4+E_6+E_8)(-E_2-E_4-E_5+E_7+E_8+E_{12})(-E_2-E_4+E_{10}+E_{12})(-E_4-E_9+E_{11}+E_{12})} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_7^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_7^- f_9^- f_{12}^- f_5^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_2-E_7+E_3+E_5+E_{10})(-E_3-E_5-E_{11}+E_1+E_7+E_9)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_1^- f_2^- f_3^- f_5^- f_9^- f_{10}^- f_{12}^- - f_1^- f_2^- f_3^- f_7^- f_9^- f_{10}^- f_{12}^- + f_1^- f_2^- f_3^- f_7^- f_{11}^- f_{12}^- f_{10}^+ - f_1^- f_2^- f_3^- f_5^- f_{10}^- f_{11}^- f_{12}^-}{(-E_1-E_2+E_3+E_8)(-E_3-E_5-E_{10}+E_1+E_2+E_7)(-E_9-E_{10}+E_2+E_{11})(-E_{10}-E_{12}+E_2+E_4)(-E_3-E_{10}-E_{12}+E_1+E_2+E_6)} \\
\frac{+f_1^- f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- - f_1^- f_3^- f_7^- f_8^- f_9^- f_{12}^- f_5^+}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_5+E_{10})(-E_3-E_5-E_{11}+E_1+E_7+E_9)(-E_1-E_7-E_{12}+E_3+E_4+E_5)(-E_7-E_{12}+E_5+E_6)} \\
\frac{+f_1^- f_2^- f_7^- f_9^- f_{12}^- f_5^+ f_8^+ + f_3^- f_5^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ - f_1^- f_2^- f_5^- f_7^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_7^- f_8^- f_9^- f_{12}^- f_2^+ f_5^+}{(-E_1-E_2+E_3+E_8)(-E_7-E_8+E_5+E_{10})(-E_7-E_8-E_9+E_2+E_5+E_{11})(-E_7-E_{12}+E_5+E_6)(-E_7-E_8-E_{12}+E_2+E_4+E_5)} \\
\frac{+f_3^- f_5^- f_8^- f_{10}^- f_{11}^- f_{12}^- f_2^+ - f_1^- f_2^- f_7^- f_9^- f_{10}^- f_{12}^- f_8^+ + f_1^- f_2^- f_7^- f_{11}^- f_{12}^- f_8^+ f_{10}^+ + f_1^- f_2^- f_5^- f_9^- f_{10}^- f_{12}^- f_8^+ + f_3^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^- f_2^+ - f_1^- f_2^- f_5^- f_{10}^- f_{11}^- f_{12}^- f_8^+ - f_3^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- f_2^+ - f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_2^+ f_{10}^+}{(-E_3-E_8+E_1+E_2)(-E_5-E_{10}+E_7+E_8)(-E_2-E_{11}+E_9+E_{10})(-E_{10}-E_{12}+E_2+E_4)(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_1^- f_3^- f_7^- f_8^- f_9^- f_{10}^- f_{12}^- + f_1^- f_3^- f_5^- f_8^- f_{10}^- f_{11}^- f_{12}^- - f_1^- f_3^- f_5^- f_8^- f_9^- f_{10}^- f_{12}^- - f_1^- f_3^- f_7^- f_8^- f_{11}^- f_{12}^- f_{10}^+}{(-E_3-E_8+E_1+E_2)(-E_7-E_8+E_5+E_{10})(-E_1-E_9-E_{10}+E_3+E_8+E_{11})(-E_1-E_{10}-E_{12}+E_3+E_4+E_8)(-E_{10}-E_{12}+E_6+E_8)} \\
\frac{+f_1^- f_2^- f_3^- f_7^- f_9^- f_{11}^- f_{12}^- - f_1^- f_2^- f_3^- f_5^- f_{11}^- f_{12}^- f_9^+}{(-E_1-E_2+E_3+E_8)(-E_1-E_7-E_9+E_3+E_5+E_{11})(-E_2-E_{11}+E_9+E_{10})(-E_{11}-E_{12}+E_4+E_9)(-E_3-E_{11}-E_{12}+E_1+E_6+E_9)}
\end{array}\right)
$$