$$\frac{-5/6 s_{\mathbf{23}} m_t \langle \mathbf{3}|\mathbf{1}|\mathbf{4}] - [\mathbf{3}|\mathbf{1}|\mathbf{4}\rangle)}{\langle \mathbf{1}|2+\mathbf{3}|\mathbf{1}]\langle \mathbf{1}|\mathbf{3}|2]\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{-5/6 s_{\mathbf{23}} [\mathbf{3}|2|\mathbf{1}|\mathbf{4}]}{\langle \mathbf{1}|2+\mathbf{3}|\mathbf{1}]\langle \mathbf{1}|\mathbf{3}|2]\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{5/48 m_t \langle \mathbf{3}|2|\mathbf{4}](s_{\mathbf{13}} - s_{\mathbf{23}})s_{12}}{\langle \mathbf{1}|\mathbf{3}|2]\Delta_{\mathbf{12|3|45}}\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{-5/48 s_{12}(s_{\mathbf{13}} - s_{\mathbf{23}})(\langle \mathbf{3}|2|\mathbf{3}|\mathbf{4}] + \langle \mathbf{34}\rangle(s_{\mathbf{13}} + m_t^2))}{\langle \mathbf{1}|\mathbf{3}|2]\Delta_{\mathbf{12|3|45}}\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{5/48 m_t (s_{\mathbf{13}} - s_{\mathbf{23}})\langle \mathbf{3}|1+2|\mathbf{4}]}{\langle \mathbf{1}|\mathbf{3}|2]\Delta_{\mathbf{12|3|45}}} +$$

$$\frac{-5/12 m_t \langle \mathbf{3}|1+2|\mathbf{4}]}{\langle \mathbf{1}|\mathbf{3}|2]\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{(-5/12\langle \mathbf{34}\rangle(s_{12} + 2s_{\mathbf{13}}) + 5/6\langle \mathbf{3}|1|2|\mathbf{4}\rangle)}{\langle \mathbf{1}|\mathbf{3}|2]\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$(12345 \to -\overline{21345}) +$$

$$\frac{3/2 s_{\mathbf{23}} m_t (\langle \mathbf{3}|\mathbf{1}|\mathbf{4}] - [\mathbf{3}|\mathbf{1}|\mathbf{4}\rangle)}{\langle \mathbf{1}|2+\mathbf{3}|\mathbf{1}]\langle \mathbf{1}|\mathbf{3}|2]\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{3/2 s_{\mathbf{23}} [\mathbf{3}|2|\mathbf{1}|\mathbf{4}]}{\langle \mathbf{1}|2+\mathbf{3}|\mathbf{1}]\langle \mathbf{1}|\mathbf{3}|2]\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{\langle \mathbf{32}\rangle m_t (s_{12} - m_t^2)(-1/3\langle 2|\mathbf{3}|\mathbf{4}] + 2/3[\mathbf{14}]\langle 12\rangle)}{\langle 12\rangle s_{\mathbf{123}}\Delta_{\mathbf{12|3|45}}} +$$

$$\frac{(s_{12} - m_t^2)(-1/3[12]\langle \mathbf{32}\rangle\langle \mathbf{24}\rangle - 1/3\langle \mathbf{34}\rangle\langle 2|\mathbf{3}|1])}{s_{\mathbf{123}}\Delta_{\mathbf{12|3|45}}} +$$

$$\frac{-16/3 m_t^2 \langle \mathbf{32}\rangle\langle \mathbf{24}\rangle}{\langle 12\rangle\left(s_{\mathbf{123}} - m_t^2\right)^2} +$$

$$\frac{-16/3\langle \mathbf{34}\rangle\langle 2|\mathbf{3}|1]m_t^2}{\langle 12][12]\left(s_{\mathbf{123}} - m_t^2\right)^2} +$$

$$\frac{1/2 m_t^2 s_{12}(s_{12} - m_t^2 + 3/2 s_{\mathbf{123}})(\langle \mathbf{34}\rangle\langle 2|\mathbf{3}|1] - 2[1|\mathbf{3}|\mathbf{4}\rangle\langle \mathbf{32}\rangle)}{\Delta_{\mathbf{12|3|45}}^2\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{1/8 m_t [12]\langle \mathbf{32}\rangle(\langle 2|\mathbf{3}|\mathbf{4}] - m_t\langle \mathbf{24}\rangle)((s_{12} - m_t^2)(s_{\mathbf{123}} - m_t^2) + 5 s_{12}(s_{12} - m_t^2) - 6 s_{12} s_{\mathbf{123}})}{\Delta_{\mathbf{12|3|45}}^2\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{1/6 m_t^2 (\mathrm{tr}(\mathbf{5}|\mathbf{3})\mathrm{tr}(\mathbf{5}|\mathbf{4}) - 2m_h^2 \mathrm{tr}(\mathbf{3}|\mathbf{4}))(m_t^2 - m_h^2 + 2 s_{\mathbf{123}})\langle \mathbf{32}\rangle\langle \mathbf{24}\rangle}{\langle 12\rangle\Delta_{\mathbf{123|4|5}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{-1/6 m_t^2 (\mathrm{tr}(\mathbf{5}|\mathbf{4})\mathrm{tr}(\mathbf{3}|\mathbf{4}) - 2m_t^2 \mathrm{tr}(\mathbf{5}|\mathbf{3}))(m_t^2 - m_h^2)\langle \mathbf{32}\rangle\langle \mathbf{24}\rangle}{\langle 12\rangle\Delta_{\mathbf{123|4|5}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{m_t (\mathrm{tr}(\mathbf{5}|\mathbf{3})\mathrm{tr}(\mathbf{5}|\mathbf{4}) - 2m_h^2 \mathrm{tr}(\mathbf{3}|\mathbf{4}))(m_t^2 - m_h^2 + s_{\mathbf{123}})(-1/12\langle \mathbf{32}\rangle\langle 2|\mathbf{3}|\mathbf{4}] + 1/3\langle \mathbf{32}\rangle[\mathbf{14}]\langle 12\rangle + 1/4[\mathbf{3}|\mathbf{4}|2\rangle\langle \mathbf{24}\rangle)}{\langle 12\rangle\Delta_{\mathbf{123|4|5}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{m_t (\mathrm{tr}(\mathbf{5}|\mathbf{4})\mathrm{tr}(\mathbf{3}|\mathbf{4}) - 2m_t^2 \mathrm{tr}(\mathbf{5}|\mathbf{3}))(m_t^2 - m_h^2)(1/6\langle \mathbf{32}\rangle\langle 2|\mathbf{3}|\mathbf{4}] - 2/3\langle \mathbf{32}\rangle[\mathbf{14}]\langle 12\rangle - 1/6[\mathbf{3}|\mathbf{4}|2\rangle\langle \mathbf{24}\rangle)}{\langle 12\rangle\Delta_{\mathbf{123|4|5}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{m_t^2 (\mathrm{tr}(\mathbf{5}|\mathbf{3})\mathrm{tr}(\mathbf{5}|\mathbf{4}) - 2m_h^2 \mathrm{tr}(\mathbf{3}|\mathbf{4}))(1/6\langle 12\rangle\langle \mathbf{34}\rangle\langle 2|\mathbf{4}|1] - 1/6(s_{\mathbf{123}} - m_t^2)\langle \mathbf{32}\rangle\langle \mathbf{24}\rangle - 1/6[\mathbf{3}|\mathbf{4}|2\rangle\langle 2|\mathbf{3}|\mathbf{4}])}{\langle 12\rangle\Delta_{\mathbf{123|4|5}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{m_t^2 (\mathrm{tr}(\mathbf{5}|\mathbf{4})\mathrm{tr}(\mathbf{3}|\mathbf{4}) - 2m_t^2 \mathrm{tr}(\mathbf{5}|\mathbf{3}))(1/6\langle 12\rangle\langle \mathbf{34}\rangle\langle 2|\mathbf{3}-\mathbf{4}|1] - 1/6 s_{12}\langle \mathbf{32}\rangle\langle \mathbf{24}\rangle + 1/6[\mathbf{3}|\mathbf{4}|2\rangle\langle 2|\mathbf{3}|\mathbf{4}])}{\langle 12\rangle\Delta_{\mathbf{123|4|5}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{-4/3 m_t^2 m_h^2 (\langle \mathbf{32}\rangle\langle \mathbf{24}\rangle[12] + \langle 2|\mathbf{3}|1]\langle \mathbf{34}\rangle)}{\langle 12][12]\Delta_{\mathbf{123|4|5}}\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{m_t^3 (s_{\mathbf{13}} - s_{\mathbf{23}})(-3/4[\mathbf{24}]\langle \mathbf{32}\rangle - 3/8[\mathbf{14}]\langle \mathbf{31}\rangle)}{\langle \mathbf{1}|\mathbf{3}|2]\Delta_{\mathbf{12|3|45}}\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{m_t^2 (s_{\mathbf{13}} - s_{\mathbf{23}})(-3/8\langle \mathbf{32}\rangle[2|\mathbf{3}|\mathbf{4}\rangle - 3/8\langle \mathbf{34}\rangle\langle \mathbf{1}|\mathbf{3}|1] + 3/4\langle \mathbf{34}\rangle\langle 12\rangle[12] + 9/8\langle \mathbf{31}\rangle[12]\langle \mathbf{24}\rangle)}{\langle \mathbf{1}|\mathbf{3}|2]\Delta_{\mathbf{12|3|45}}\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{[\mathbf{24}]\langle \mathbf{32}\rangle m_t (s_{\mathbf{13}} - s_{\mathbf{23}})(-3/4\langle 1|\mathbf{3}|1] - 3/8\langle 2|\mathbf{3}|2])}{\langle \mathbf{1}|\mathbf{3}|2]\Delta_{\mathbf{12|3|45}}\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{(s_{\mathbf{13}} - s_{\mathbf{23}})(-3/8\langle \mathbf{34}\rangle\langle 1|\mathbf{3}|1]^2 + 3/8\langle 1\mathbf{4}\rangle\langle 2|\mathbf{3}|1]\langle \mathbf{31}\rangle[12])}{\langle \mathbf{1}|\mathbf{3}|2]\Delta_{\mathbf{12|3|45}}\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{\langle \mathbf{32}\rangle m_t (-5/3[12]\langle 2|\mathbf{3}|\mathbf{4}] \ldots \langle\langle 4 \text{ terms}\rangle\rangle \ldots - 13/6 m_t^2 [\mathbf{14}])}{\Delta_{\mathbf{12|3|45}}\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{(-23/24\langle \mathbf{34}\rangle\langle 2|\mathbf{3}|1]\langle 2|\mathbf{3}|2] \ldots \langle\langle 3 \text{ terms}\rangle\rangle \ldots - 23/24\langle 2|\mathbf{3}|2][12]\langle \mathbf{32}\rangle\langle \mathbf{24}\rangle)}{\Delta_{\mathbf{12|3|45}}\left(s_{\mathbf{123}} - m_t^2\right)} +$$

$$\frac{m_t (\mathrm{tr}(\mathbf{3}|\mathbf{4})\mathrm{tr}(1+2|\mathbf{3}) - 2m_t^2 \mathrm{tr}(1+2|\mathbf{4}))(1/4[\mathbf{24}]\langle 2|\mathbf{3}|\mathbf{4}|2\rangle\langle \mathbf{32}\rangle \ldots \langle\langle 15 \text{ terms}\rangle\rangle \ldots + 1/8[\mathbf{14}]\langle 12\rangle^2\langle \mathbf{3}|\mathbf{4}|1])}{\langle 12\rangle\Delta_{\mathbf{12|3|45}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{m_t (\mathrm{tr}(\mathbf{3}|\mathbf{4})\mathrm{tr}(1+2|\mathbf{3}) - 2m_t^2 \mathrm{tr}(1+2|\mathbf{4}))(-3/8\langle 2|\mathbf{3}|\mathbf{4}|2\rangle[\mathbf{32}]\langle \mathbf{24}\rangle \ldots \langle\langle 5 \text{ terms}\rangle\rangle \ldots - 1/12 m_t^2 [\mathbf{3}|\mathbf{4}|2\rangle\langle \mathbf{24}\rangle)}{\langle 12\rangle\Delta_{\mathbf{12|3|45}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{m_t (\mathrm{tr}(1+2|\mathbf{3})\mathrm{tr}(1+2|\mathbf{4}) - 2s_{12}\mathrm{tr}(\mathbf{3}|\mathbf{4}))(1/4[\mathbf{24}]\langle 2|\mathbf{3}|\mathbf{4}|2\rangle\langle \mathbf{32}\rangle \ldots \langle\langle 8 \text{ terms}\rangle\rangle \ldots - 1/12[\mathbf{14}]\langle \mathbf{31}\rangle\langle 2|\mathbf{3}|\mathbf{4}|2\rangle)}{\langle 12\rangle\Delta_{\mathbf{12|3|45}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{m_t (\mathrm{tr}(1+2|\mathbf{3})\mathrm{tr}(1+2|\mathbf{4}) - 2s_{12}\mathrm{tr}(\mathbf{3}|\mathbf{4}))(-1/6\langle 2|\mathbf{3}|\mathbf{4}|2\rangle[\mathbf{32}]\langle \mathbf{24}\rangle \ldots \langle\langle 5 \text{ terms}\rangle\rangle \ldots - 1/6 m_t^2 [\mathbf{3}|\mathbf{4}|2\rangle\langle \mathbf{24}\rangle)}{\langle 12\rangle\Delta_{\mathbf{12|3|45}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{m_t (\mathrm{tr}(\mathbf{3}|\mathbf{4})\mathrm{tr}(1+2|\mathbf{3}) - 2m_t^2 \mathrm{tr}(1+2|\mathbf{4}))(-1/12\langle 1|\mathbf{4}|1][\mathbf{24}]\langle \mathbf{32}\rangle\langle 2|\mathbf{4}|1] \ldots \langle\langle 15 \text{ terms}\rangle\rangle \ldots - 1/12\langle \mathbf{3}|\mathbf{4}|1]\langle 2|\mathbf{3}|2]\langle 2|\mathbf{3}|\mathbf{4}])}{\langle 12][12]\Delta_{\mathbf{12|3|45}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{m_t (\mathrm{tr}(1+2|\mathbf{3})\mathrm{tr}(1+2|\mathbf{4}) - 2s_{12}\mathrm{tr}(\mathbf{3}|\mathbf{4}))(-1/4 m_t^2 [\mathbf{14}]\langle 2|\mathbf{4}|2]\langle \mathbf{32}\rangle \ldots \langle\langle 13 \text{ terms}\rangle\rangle \ldots + 1/12\langle \mathbf{3}|\mathbf{4}|1]\langle 2|\mathbf{3}|2]\langle 2|\mathbf{3}|\mathbf{4}])}{\langle 12][12]\Delta_{\mathbf{12|3|45}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{(\mathrm{tr}(\mathbf{3}|\mathbf{4})\mathrm{tr}(1+2|\mathbf{3}) - 2m_t^2 \mathrm{tr}(1+2|\mathbf{4}))(1/6\langle 2|\mathbf{4}|2]\langle 2|\mathbf{3}|2]\langle \mathbf{32}\rangle\langle \mathbf{24}\rangle \ldots \langle\langle 11 \text{ terms}\rangle\rangle \ldots + 1/6\langle 2|\mathbf{4}|2]\langle 1|\mathbf{3}|1]\langle \mathbf{32}\rangle\langle \mathbf{24}\rangle)}{\langle 12\rangle\Delta_{\mathbf{12|3|45}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{\langle 2|\mathbf{3}|\mathbf{4}|2\rangle[\mathbf{34}](\mathrm{tr}(\mathbf{3}|\mathbf{4})\mathrm{tr}(1+2|\mathbf{3}) - 2m_t^2 \mathrm{tr}(1+2|\mathbf{4}))(-1/8\langle 1|\mathbf{4}|1] - 1/8\langle 2|\mathbf{4}|2] - 1/12\langle 2|\mathbf{3}|2] - 1/12\langle 1|\mathbf{3}|1])}{\langle 12\rangle\Delta_{\mathbf{12|3|45}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{(\mathrm{tr}(1+2|\mathbf{3})\mathrm{tr}(1+2|\mathbf{4}) - 2s_{12}\mathrm{tr}(\mathbf{3}|\mathbf{4}))(1/24\langle \mathbf{3}|\mathbf{4}|1]\langle 1|\mathbf{3}|\mathbf{4}|2\rangle\langle 2\mathbf{4}\rangle + 1/12\langle 1\mathbf{4}\rangle\langle \mathbf{3}|\mathbf{4}|1]\langle 2|\mathbf{3}|\mathbf{4}|2\rangle - 1/6\langle \mathbf{34}\rangle\langle 2|\mathbf{3}|1]\langle 12\rangle\mathrm{tr}(\mathbf{3}|\mathbf{4}))}{\langle 12\rangle\Delta_{\mathbf{12|3|45}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{-1/8\mathrm{tr}(\mathbf{3}|\mathbf{4})\langle 2|\mathbf{3}|\mathbf{4}|2\rangle[\mathbf{34}](\mathrm{tr}(1+2|\mathbf{3})\mathrm{tr}(1+2|\mathbf{4}) - 2s_{12}\mathrm{tr}(\mathbf{3}|\mathbf{4}))}{\langle 12\rangle\Delta_{\mathbf{12|3|45}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{\langle \mathbf{3}|\mathbf{4}|1]\langle 2\mathbf{4}\rangle(\mathrm{tr}(\mathbf{3}|\mathbf{4})\mathrm{tr}(1+2|\mathbf{3}) - 2m_t^2 \mathrm{tr}(1+2|\mathbf{4}))(1/12\langle 2|\mathbf{3}|2]^2 + 1/12\langle 1|\mathbf{3}|1]^2 + 1/6\langle 2|\mathbf{3}|2]\langle 1|\mathbf{3}|1])}{\langle 12][12]\Delta_{\mathbf{12|3|45}}\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{\langle \mathbf{32}\rangle m_t (1/12\langle 2|\mathbf{3}|\mathbf{4}] - 47/24[\mathbf{14}]\langle 12\rangle)}{\langle 12\rangle\Delta_{\mathbf{12|3|45}}} +$$

$$\frac{-1[\mathbf{3}|\mathbf{4}|2\rangle\langle 2\mathbf{4}\rangle m_t}{\langle 12\rangle\Delta_{\mathbf{12|3|45}}} +$$

$$\frac{m_t (1/3\langle 1|\mathbf{4}|1][\mathbf{14}]\langle \mathbf{32}\rangle + 1/3\langle 2|\mathbf{4}|1][\mathbf{24}]\langle \mathbf{32}\rangle + 2/3\langle \mathbf{3}|\mathbf{4}|1]\langle 2|\mathbf{3}|\mathbf{4}] - 2/3 m_t^2 [\mathbf{14}]\langle \mathbf{32}\rangle)}{\langle 12][12]\Delta_{\mathbf{12|3|45}}} +$$

$$\frac{(-2/3\langle 2|\mathbf{3}|2][\mathbf{32}]\langle \mathbf{24}\rangle \ldots \langle\langle 4 \text{ terms}\rangle\rangle \ldots - 2/3\langle 2|\mathbf{3}|1]\langle \mathbf{31}\rangle\langle \mathbf{24}\rangle)}{\langle 12\rangle\Delta_{\mathbf{12|3|45}}} +$$

$$\frac{1[\mathbf{3}|\mathbf{4}|2\rangle\langle 2|\mathbf{3}|\mathbf{4}]}{\langle 12\rangle\Delta_{\mathbf{12|3|45}}} +$$

$$\frac{\langle \mathbf{34}\rangle\langle 2|\mathbf{3}|1](-1/3\langle 2|\mathbf{3}|2] + 4/3 m_t^2 - 1/3\langle 1|\mathbf{3}|1])}{\langle 12][12]\Delta_{\mathbf{12|3|45}}} +$$

$$\frac{\langle \mathbf{32}\rangle m_t (-1/3\langle 2|\mathbf{3}|2][2|\mathbf{3}|\mathbf{4}] - 1/3\langle 2|\mathbf{3}|\mathbf{4}|1]\langle 1|\mathbf{3}|1] + 4/3[\mathbf{14}]\langle 12\rangle\langle 2|\mathbf{3}|2] + 4/3[\mathbf{14}]\langle 12\rangle\langle 1|\mathbf{3}|1])}{\langle 12\rangle\Delta_{\mathbf{12|3|4|5}}} +$$

$$\frac{\langle \mathbf{24}\rangle m_t (1\langle 2|\mathbf{3}|\mathbf{4}|2\rangle[\mathbf{32}] + 1[\mathbf{3}|\mathbf{4}|1\rangle\langle 2|\mathbf{3}|1])}{\langle 12\rangle\Delta_{\mathbf{12|3|4|5}}} +$$

$$(12345 \to \overline{21345}) +$$

$$\frac{-1/12 m_t^2 (\langle \mathbf{34}\rangle + [\mathbf{34}])(\mathrm{tr}(\mathbf{5}|\mathbf{3})\mathrm{tr}(\mathbf{5}|\mathbf{4}) - 2m_h^2 \mathrm{tr}(\mathbf{3}|\mathbf{4}))(\mathrm{tr}(\mathbf{4}|\mathbf{5})\langle 2|\mathbf{3}+\mathbf{4}|1] + 2m_h^2\langle 2|\mathbf{4}|1])}{\langle 12][12]\Delta_{\mathbf{123|4|5}}\Delta_{\mathbf{12|3|4|5}}}$$