```
[12]^2\langle 12\rangle\langle 2|\mathbf{3}|1]m_t^2(9/8\langle 12\rangle\langle \mathbf{34}\rangle + 9/16\langle \mathbf{31}\rangle\langle 2\mathbf{4}\rangle)
                                                                                                                                                                                                                                                                                                   \Delta^2_{12|\mathbf{3}|\mathbf{45}}(s_{123}-m_t^2)
                                                                                                                                                                            \frac{\langle 2|\mathbf{3}|1]m_{t}[12]\langle 12\rangle(9/16\langle\mathbf{3}|1+2|\mathbf{4}]\langle 1|\mathbf{3}|1]+9/16\langle\mathbf{3}|2|\mathbf{3}|1+2|\mathbf{4}]\rangle}{\Delta^{2}_{12|\mathbf{3}|\mathbf{45}}(s_{1}2\mathbf{3}^{-}m_{t}^{2})}+
m_t(\text{tr}(\mathbf{3}|\mathbf{4})\text{tr}(1+2|\mathbf{3}) - 2m_t^2\text{tr}(1+2|\mathbf{4}))(3/32\langle\mathbf{3}2\rangle[1\mathbf{4}]\langle2|\mathbf{3}|2]\dots\langle 6\text{ terms}\rangle\dots + 3/4\langle\mathbf{3}2\rangle[1\mathbf{4}]\text{tr}(\mathbf{3}|\mathbf{4}) - 3/4\langle\mathbf{3}2\rangle[1\mathbf{4}]m_t^2)
                                                                                                                                                                                                                                                                                                       \Delta_{12|\mathbf{3}|\mathbf{45}}\Delta_{12|\mathbf{3}|\mathbf{4}|\mathbf{5}}
                                         (\text{tr}(\mathbf{3}|\mathbf{4})\text{tr}(1+2|\mathbf{3}) - 2m_{\text{\it f}}^2\text{tr}(1+2|\mathbf{4}))(-3/32\langle\mathbf{3}|\mathbf{4}|1]\langle\mathbf{24}\rangle\langle2|\mathbf{3}|2]\dots\langle\!\langle3\,\text{terms}\rangle\!\rangle\dots + 3/32\langle2|\mathbf{3}|1]\langle1\mathbf{4}\rangle\langle\mathbf{3}|\mathbf{4}|1])_{-1}
                                                                                                                                                                                                                                                                                                        \Delta_{12|\mathbf{3}|\mathbf{45}}\Delta_{12|\mathbf{3}|\mathbf{4}|\mathbf{5}}
                                                                                                                                                                                  3/32 \langle \mathbf{34} \rangle \langle 2|\mathbf{3}|1] (\mathrm{tr}(1+2|\mathbf{3})\mathrm{tr}(1+2|\mathbf{4}) - 2s_{\textstyle 12}\mathrm{tr}(\mathbf{3}|\mathbf{4}))\mathrm{tr}(\mathbf{3}|\mathbf{4}) \ _{\perp}
                                                                                                                                                                                                                                                                                                        \Delta_{12|3|45}\Delta_{12|3|4|5}
                                                                                                                                                                     -3/16\langle \mathbf{32}\rangle\langle 2|\mathbf{3|4}]m_t(\text{tr}(\mathbf{3|4})\text{tr}(1+2|\mathbf{3})-2m_t^2\text{tr}(1+2|\mathbf{4}))\langle 1|\mathbf{3|1}]
                                                                                                                                                                                                                                                                                           \langle 12 \rangle \Delta_{12|3|45} \Delta_{12|3|4|5}
                                                                                                                                                                         \frac{3/16[\mathbf{3}|\mathbf{4}|1\rangle\langle2\mathbf{4}\ranglem_{t}(\mathrm{tr}(\mathbf{3}|\mathbf{4})\mathrm{tr}(1+2|\mathbf{3})-2m_{t}^{2}\mathrm{tr}(1+2|\mathbf{4}))\langle2|\mathbf{3}|1]}{\langle12\rangle\Delta_{12}|\mathbf{3}|\mathbf{4}\mathbf{5}^{\Delta_{12}}|\mathbf{3}|\mathbf{4}|\mathbf{5}}+
                                                                                                                          \frac{\langle 2|\mathbf{3}|4|2\rangle m_t(\mathrm{tr}(1+2|\mathbf{3})\mathrm{tr}(1+2|\mathbf{4}) - 2s_{12}\mathrm{tr}(\mathbf{3}|\mathbf{4}))(-3/8\langle 24\rangle[\mathbf{3}2] - 3/8[\mathbf{3}1]\langle 14\rangle)}{\langle 12\rangle\Delta_{12}|\mathbf{3}|\mathbf{4}5\Delta_{12}|\mathbf{3}|\mathbf{4}|\mathbf{5}} +
                                                                             (\text{tr}(\mathbf{3}|\mathbf{4})\text{tr}(1+2|\mathbf{3}) - 2m_t^2\text{tr}(1+2|\mathbf{4}))(3/16\langle\mathbf{34}\rangle\langle2|\mathbf{3}|\mathbf{4}|2\rangle\langle2|\mathbf{3}|2] - 3/16\langle2\mathbf{4}\rangle\text{tr}(\mathbf{3}|\mathbf{4})\langle\mathbf{32}\rangle\langle1|\mathbf{3}|1]) - 2m_t^2\text{tr}(1+2|\mathbf{4})(3/16\langle\mathbf{34}\rangle\langle2|\mathbf{3}|\mathbf{4}|2\rangle\langle2|\mathbf{3}|2] - 3/16\langle2\mathbf{4}\rangle\text{tr}(\mathbf{3}|\mathbf{4})\langle\mathbf{32}\rangle\langle1|\mathbf{3}|1]) - 2m_t^2\text{tr}(1+2|\mathbf{4})(3/16\langle\mathbf{34}\rangle\langle2|\mathbf{3}|\mathbf{4}|2\rangle\langle2|\mathbf{3}|2] - 3/16\langle2\mathbf{4}\rangle\text{tr}(\mathbf{3}|\mathbf{4})\langle\mathbf{32}\rangle\langle1|\mathbf{3}|1]) - 2m_t^2\text{tr}(1+2|\mathbf{4})(3/16\langle\mathbf{34}\rangle\langle2|\mathbf{3}|\mathbf{4}|2)\langle2|\mathbf{3}|2] - 3/16\langle2\mathbf{4}\rangle\text{tr}(\mathbf{3}|\mathbf{4})\langle\mathbf{32}\rangle\langle1|\mathbf{3}|1]) - 2m_t^2\text{tr}(1+2|\mathbf{4})(3/16\langle\mathbf{34}\rangle\langle2|\mathbf{3}|\mathbf{4}|2)\langle2|\mathbf{3}|2] - 3/16\langle2\mathbf{4}\rangle\text{tr}(\mathbf{3}|\mathbf{4})\langle\mathbf{32}\rangle\langle1|\mathbf{3}|1] - 2m_t^2\text{tr}(1+2|\mathbf{4})(3/16\langle\mathbf{34}\rangle\langle2|\mathbf{3}|\mathbf{4}|2)\langle2|\mathbf{3}|2] - 3/16\langle2\mathbf{4}\rangle\text{tr}(\mathbf{3}|\mathbf{4})\langle2|\mathbf{3}|2) - 2m_t^2\text{tr}(1+2|\mathbf{3})(3/16\langle\mathbf{34}\rangle\langle2|\mathbf{3}|\mathbf{3}|2) - 2m_t^2\text{tr}(1+2|\mathbf{3})(3/16\langle\mathbf{34}\rangle\langle2|\mathbf{3}|\mathbf{3}|2) - 2m_t^2\text{tr}(1+2|\mathbf{3})(3/16\langle\mathbf{34}\rangle\langle2|\mathbf{3}|\mathbf{3}|2) - 2m_t^2\text{tr}(1+2|\mathbf{3})(3/16\langle\mathbf{34}\rangle\langle2|\mathbf{3}|\mathbf{3}|2) - 2m_t^2\text{tr}(1+2|\mathbf{3})(3/16\langle\mathbf{34}\rangle\langle2|\mathbf{3}|\mathbf{3}|2) - 2m_t^2\text{tr}(1+2|\mathbf{3})(3/16\langle\mathbf{34}\rangle\langle2|\mathbf{3}|\mathbf{3}|2) - 2m_t^2\text{tr}(1+2|\mathbf{3})(3/16\langle\mathbf{34}\rangle\langle2|\mathbf{3}|2) - 2m_t^2\text{tr}(1+2|\mathbf{3})(3/16\langle
                                                                                                                                                                                                                                                                                           \langle 12 \rangle \Delta_{12|3|45} \Delta_{12|3|4|5}
                                                                                                                               [\mathbf{34}]\langle 2|\mathbf{3}|\mathbf{4}|2\rangle(\mathrm{tr}(\mathbf{3}|\mathbf{4})\mathrm{tr}(1+2|\mathbf{3})-2m_{t}^{2}\mathrm{tr}(1+2|\mathbf{4}))(3/16\langle 2|\mathbf{3}|2]+3/16\langle 1|\mathbf{3}|1])
                                                                                                                                                                                                                                                                                           \langle 12 \rangle \Delta_{12|\mathbf{3}|\mathbf{45}} \Delta_{12|\mathbf{3}|\mathbf{4}|\mathbf{5}}
                                                                                                                                                                   \frac{\langle \mathbf{32} \rangle m_{t}(3/2\langle 2|\mathbf{3}|\mathbf{4}|2\rangle[2\mathbf{4}]\ldots\langle\!\langle \mathbf{4}\,\mathrm{terms}\rangle\!\rangle\ldots+3/4[1\mathbf{4}]\mathrm{tr}(\mathbf{3}|\mathbf{4})\langle 12\rangle\!\rangle}{\langle 12\rangle\Delta_{12}|\mathbf{3}|\mathbf{4}|\mathbf{5}}+
                                                                                                                             \frac{(3/4\langle 1|\mathbf{3}|\mathbf{4}|2\rangle\langle 2\mathbf{4}\rangle\langle \mathbf{3}|\mathbf{4}|1]+3/4\langle 1\mathbf{4}\rangle\langle 2|\mathbf{3}|\mathbf{4}|2\rangle\langle \mathbf{3}|\mathbf{4}|1]+3/2\langle \mathbf{3}\mathbf{4}\rangle\langle 2|\mathbf{3}|\mathbf{4}|2\rangle\langle 2|\mathbf{3}|2])}{\langle 12\rangle\Delta_{\mathbf{12}|\mathbf{3}|\mathbf{4}|\mathbf{5}}}+
                                                                                                                                                                                                                                                                                                                  (12345 \rightarrow 12435) +
                                                                                                                                                                                                                                                                                                                  (12345 \rightarrow \overline{21345}) +
                                                                                                                                                                                                                                                                                                                  (12345 \rightarrow \overline{21435}) +
                                                                                                                                                                                                                  [12]m_{t}^{2}(s_{\textbf{13}}-s_{\textbf{23}})(-3/4\langle 12\rangle\langle \textbf{34}\rangle-3/4\langle \textbf{31}\rangle\langle 2\textbf{4}\rangle)
                                                                                                                                                                                                                                                                                \langle 1|\mathbf{3}|2]\Delta_{12|\mathbf{3}|\mathbf{45}}(s_{12\mathbf{3}}-m_t^2)
                                                                                                                                                                                                                                                                     \frac{-3/4 [\mathbf{3} 1] \langle 12 \rangle [2\mathbf{4}] m_t^2 (s_{1\mathbf{3}} - s_{2\mathbf{3}})}{\langle 1|\mathbf{3}|2| \Delta_{12} |\mathbf{3}| \mathbf{45} (s_{12\mathbf{3}} - m_t^2)} +
                                                                                                                                                                                                                  \frac{\langle \mathbf{32} \rangle [2\mathbf{4}] m_t (s_{\mathbf{13}} - s_{\mathbf{23}}) (3/4 \langle 1|\mathbf{3}|1] - 1/6 \langle 12 \rangle [12])}{\langle 1|\mathbf{3}|2] \Delta_{\mathbf{12}|\mathbf{3}|\mathbf{45}} (s_{\mathbf{123}} - m_t^2)} +
                                                                                                                                                                                                                                                             -3/4[\mathbf{3}1]\langle 12 \rangle [2|\mathbf{3}|\mathbf{4}\rangle m_t(s_{1}\mathbf{3}-s_{2}\mathbf{3})
                                                                                                                                                                                                                                                                            \langle 1|\overline{{\bf 3}|2]}\Delta_{12|{\bf 3}|{\bf 45}}(s_{12{\bf 3}}{-}m_t^2)
                                                                                                                                                                                                                                                      \frac{-7/12\langle {\bf 31}\rangle\langle 1{\bf 4}\rangle[12]\langle 2|{\bf 3}|1](s_{{\bf 13}}{-}s_{{\bf 23}})}{\langle 1|{\bf 3}|2]\Delta_{{\bf 12}|{\bf 3}|{\bf 45}}(s_{{\bf 123}}{-}m_{t}^{2})}+
                                                                                                                                                                                                                                                           \frac{-1/6 [\mathbf{3}1] \langle 12 \rangle [2\mathbf{4}] \langle 2|\mathbf{3}|2] (s_{\mathbf{13}} - s_{\mathbf{23}})}{\langle 1|\mathbf{3}|2] \Delta_{\mathbf{12}|\mathbf{3}|\mathbf{45}} (s_{\mathbf{123}} - m_{t}^{2})} +
                                                                                                                                                                                                                                                                                                          \frac{-2/3[1\mathbf{4}]\langle\mathbf{3}2\rangle m_t}{\langle12\rangle[12](s_{123}-m_t^2)}
                                                                                                                                                                                                                                                                                                          \frac{-23/6 [\mathbf{3}1] \langle 2\mathbf{4} \rangle m_{t}}{\langle 12 \rangle [12] (s_{1} \mathbf{23} - m_{t}^{2})} +
                                                                                                                                                                                                                                                                     \langle \mathbf{32} \rangle (-23/6[1|\mathbf{3}|\mathbf{4}\rangle - 3/2[12]\langle 2\mathbf{4}\rangle) +
                                                                                                                                                                                                                                                                                                            (12)[12](s_{123}-m_t^2)
                                                                                                                                                                                                                                                                          \textcolor{red}{\bf [31]} (-1/2\langle 2|{\bf 3|4]} + 7/6\langle 12\rangle [14]) \\ + \\
                                                                                                                                                                                                                                                                                                            \langle 12 \rangle [12] (s_{123} - m_t^2)
                                                                                                                                                                                               \frac{[14]\langle 32 \rangle m_t (1/24\langle 2|3|2] - 65/24\langle 12 \rangle [12] + 1/24\langle 1|3|1])}{\langle 12 \rangle [12] \Delta_{12} |3|45} +
                                                                                                                                                                                                                                                                                                              -13/\underline{24}[\mathbf{3}1]\langle 2\mathbf{4} \rangle m_{t}
                                                                                                                                                                                                                                                                                                                                            \Delta_{12|3|45}
                                                                                                   \frac{(37/24\langle \mathbf{34}\rangle\langle 2|\mathbf{3}|1]\mathrm{tr}(1+2|\mathbf{3})+19/24\langle 12\rangle\langle \mathbf{34}\rangle[12]\langle 2|\mathbf{3}|1]+23/24\langle \mathbf{3}|1+2|\mathbf{3}|2\rangle[12]\langle 2\mathbf{4}\rangle)}{\langle 12\rangle[12]\Delta_{\mathbf{12}|\mathbf{3}|\mathbf{45}}}+
                                                                                                     \frac{(-1/24\langle 2|3|1]\langle 12\rangle[12][34]+17/24[34]\langle 2|3|1]\mathrm{tr}(1+2|3)-7/8[31]\langle 12\rangle[14]\mathrm{tr}(1+2|3))}{\langle 12\rangle[12]\Delta_{12}|3|45}+
                                                                                                                                                                                    m_t(2[14]\langle \mathbf{3} 2 \rangle \langle 2|\mathbf{3}|2] \dots \langle \langle \mathbf{3} \operatorname{terms} \rangle \dots + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1]) + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1] \rangle + 1/2 \langle \mathbf{3} 1 \rangle [14]\langle 2|\mathbf{3}|1
                                                                                                                                                                                                                                                                                                   \Delta_{12|{\bf 3|45}}(s_{12{\bf 3}}-m_t^2)
                                                                                                                                                          m_{t}(-1/3[\mathbf{3}1]\langle 12\rangle[12]\langle 2\mathbf{4}\rangle + 1/6[\mathbf{3}|\mathbf{4}|2\rangle[1|\mathbf{3}|\mathbf{4}\rangle + 1/6[\mathbf{3}1]\mathrm{tr}(\mathbf{3}|\mathbf{4})\langle 2\mathbf{4}\rangle) \ ,
                                                                                                                                                                                                                                                                                                   \Delta_{12|\mathbf{3}|\mathbf{45}^{(s_{12}\mathbf{3}-m_{t}^{2})}
                                                                                                                                                           \Delta_{12|\mathbf{3}|\mathbf{45}}(s_{123}-m_t^2)
                                                                                                                                                                                                                                                                                                       -1/3[31]\langle 1|3|1]\langle 12\rangle[14]
                                                                                                                                                                                                                                                                                                     \Delta_{12|3|45}(s_{123}-m_t^2)
                                                                                                                                                                                                                                                                                                                  (12345 \rightarrow \overline{21435})
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