```
\stackrel{\text{(1)}}{\text{i1}} \stackrel{\text{i1}}{\text{-i2}} - \rightarrow \text{$\hbar$} \ \left( \frac{1}{432} \ \frac{1}{\text{$m_0$}^2} \ \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \left( \text{$s$} \ \text{$g_1$}^2 \ \text{$y_d$}^{\text{i1p}} - 36 \ \text{$c_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{rs}} \ \text{$y_d$}^{\text{rp}} \ \text{$y_d$}^{\text{i1s}} \right) + \frac{1}{2} \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{rs}} \right) \right) + \frac{1}{2} \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \right) \right) + \frac{1}{2} \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \right) \right) + \frac{1}{2} \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \right) \right) + \frac{1}{2} \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \right) \right) + \frac{1}{2} \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \right) \right) + \frac{1}{2} \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}}^{\text{i2p}} \ \right) + \frac{1}{2} \left( \text{$s_{\gamma}$}^2 \ \overline{\text{$y_d$}
C_{\mathsf{Hq}}
                                                                                                                                                                                                                                               \frac{5}{216} \, \sum_{p} \, g_{1}{}^{4} \, \mathsf{LF_{4,-1}} \big[ \, \mathsf{m_{\tilde{d}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, + \, \frac{4}{405} \, \sum_{p} \, g_{1}{}^{4} \, \mathsf{LF_{5,-2}} \big[ \, \mathsf{m_{\tilde{d}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, + \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF_{3,0}} \big[ \, \mathsf{m_{\tilde{e}}}^{\, p} \big] \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1} \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1} \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1} \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1} \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1} \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1} \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1} \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1} \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1} \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1} \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27} \, \sum_{p} \, g_{1} \, \, \delta_{\text{ili2}} \, - \, \frac{1}{27
                                                                                                                                                   \frac{5}{72} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{4,-1}} \big[ \mathsf{m_{\tilde{e}}}^{p} \big] \; \delta_{\mathsf{1112}} + \frac{4}{135} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{5,-2}} \big[ \mathsf{m_{\tilde{e}}}^{p} \big] \; \delta_{\mathsf{1112}} + \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} - \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} + \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} + \frac{1}{54} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} + \frac{1}{54} \sum_{p} g_{1} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} + \frac{1}{54} \sum_{p} g_{1} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} + \frac{1}{54} \sum_{p} g_{1} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} + \frac{1}{54} \sum_{p} g_{1} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} + \frac{1}{54} \sum_{p} g_{1} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} + \frac{1}{54} \sum_{p} g_{1} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} + \frac{1}{54} \sum_{p} g_{1} \; \mathsf{LF_{3,0}} \big[ \mathsf{m_{\tilde{l}}}^{p} \big] \; \delta_{\mathsf{1112}} + \frac{1}{54} \sum_{p} g_{1} \; \mathsf{LF_{
                                                                                                                                               \frac{1}{162} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{3,0} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{2}} - \frac{5}{432} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{4,-1} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{2}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{405} \sum_{p} g_{1} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{405} \sum_{p} g_{1} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}} + \frac{1}{405} \sum_{p} g_{1} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}} + \frac{1}{405} \sum_{p} g_{1} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}} + \frac{1}{405} \sum_{p} g_{1} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ \delta_{\dot{1}\dot{1}\dot{1}} + \frac{1}{405} \sum_{p} g_{1} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{q}}{}^{p} \big] \ 
                                                                                                                                               \frac{4}{81} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{3,\theta} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \ \delta_{\mathsf{1112}} - \frac{5}{54} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \ \delta_{\mathsf{1112}} + \frac{16}{405} \sum_{p} g_{1}{}^{4} \ \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \ \delta_{\mathsf{1112}} + \frac{1}{405} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \ 
                                                                                                                                               \frac{1}{18} \left( s_{\gamma}^{\ 2} \, \overline{y_d}^{i2p} \, \left( g_1^{\ 2} \, y_d^{\,i1p} - 9 \, c_{\gamma}^{\ 2} \, \overline{y_d}^{rs} \, y_d^{\,rp} \, y_d^{\,i1s} \right) + c_{\gamma}^{\ 2} \, \overline{y_u}^{i2p} \, \left( -2 \, g_1^{\ 2} \, y_u^{\,i1p} + 9 \, s_{\gamma}^{\ 2} \, \overline{y_u}^{rs} \, y_u^{\,rp} \, y_u^{\,i1s} \right) \right)
                                                                                                                                                                     \text{LF}_{\text{1,2}}\left[\,\text{M}_{\scriptscriptstyle{\oplus}}\,\right] \;+\; \frac{1}{24} \;\; g_{\text{1}}^{\;\; 2} \;\left(-\; \text{S}_{\scriptscriptstyle{\gamma}}^{\;\; 2} \; \overline{\text{y}_{\text{d}}}^{\text{i2p}} \; \text{y}_{\text{d}}^{\;\; \text{i1p}} \;+\; \text{C}_{\scriptscriptstyle{\gamma}}^{\;\; 2} \; \overline{\text{y}_{\text{u}}}^{\text{i2p}} \; \text{y}_{\text{u}}^{\;\; \text{i1p}}\right) \;\; \text{LF}_{\text{2,1}}\left[\,\text{M}_{\scriptscriptstyle{\oplus}}\,\right] \;\; +\; \frac{1}{24} \;\; \text{M}_{\scriptscriptstyle{\oplus}}^{\;\; \text{cols}}\left[\,\text{M}_{\scriptscriptstyle{\oplus}}^{\;\; \text{cols}}\,\right] \;\; +\; \frac{1}{24} \;\; \text{M}_{\scriptscriptstyle{\oplus}}^{\;\; \text{col
                                                                                                                                               \frac{1}{216} \; \mathsf{g_1}^2 \; \left(9 \; \mathsf{s_{\gamma}}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} - 9 \; \mathsf{c_{\gamma}}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2p}} \; \mathsf{y_u}^{\mathsf{i1p}} + 4 \; \mathsf{g_1}^2 \; \delta_{\mathsf{i1i2}}\right) \; \mathsf{LF_{3,0}} \left[\,\mathsf{m_{\scriptscriptstyle{\oplus}}}\,\right] \; - \; \mathsf{h_{\scriptscriptstyle{\oplus}}} \; \mathsf{h_{\scriptscriptstyle
                                                                                                                                               \frac{-5}{144} \ g_1^{\ 4} \ \mathsf{LF_{4,-1}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{2}{135} \ g_1^{\ 4} \ \mathsf{LF_{5,-2}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \widetilde{\mu} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \widetilde{\mu} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{54} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{1}{14} \ \mathsf{m_{\oplus}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\mathtt{ili2}} + \frac{
                                                                                                                                               \frac{1}{36} \ g_1{}^4 \ \mathsf{LF}_{4,-1} \left[ \tilde{\mu} \right] \ \delta_{\mathsf{ili2}} - \frac{4}{135} \ g_1{}^4 \ \mathsf{LF}_{5,-2} \left[ \tilde{\mu} \right] \ \delta_{\mathsf{ili2}} + \frac{1}{18} \ g_1{}^2 \ \mathsf{C_{\gamma}}^2 \ \overline{\mathsf{y_d}}{}^{\mathsf{i2p}} \ \mathsf{y_d}{}^{\mathsf{i1p}} \ \mathsf{LF}_{2,1,0} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}}{}^{\mathsf{p}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_{\tilde{d}}} \right] - \frac{1}{18} \ \mathsf{m_{\tilde{d}}} \left[ \mathsf{m_1}, \ \mathsf{m_1}, \ \mathsf{m_1}, \ \mathsf{m_1} \right] - \frac{1}{18} \ \mathsf{m_1} + \frac{1}{18
                                                                                                                                               \frac{1}{9} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{d}}{}^{p} \, \big] \; + \; \frac{1}{18} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{4,1,-2} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{d}}{}^{-p} \, \big] \; + \; \frac{1}{18} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{4,1,-2} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{d}}{}^{-p} \, \big] \; + \; \frac{1}{18} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{4,1,-2} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{d}}{}^{-p} \, \big] \; + \; \frac{1}{18} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{4,1,-2} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{d}}{}^{-p} \, \big] \; + \; \frac{1}{18} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{4,1,-2} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{d}}{}^{-p} \, \big] \; + \; \frac{1}{18} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{4,1,-2} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{d}}{}^{-p} \, \big] \; + \; \frac{1}{18} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{4,1,-2} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{d}}{}^{-p} \, \big] \; + \; \frac{1}{18} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{4,1,-2} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{d}}{}^{-p} \, \big] \; + \; \frac{1}{18} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{4,1,-2} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{d}}{}^{-p} \, \big] \; + \; \frac{1}{18} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{4,1,-2} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{1} \, , \; \mathsf{m}_{2} \, \big] \; + \; \frac{1}{18} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{4,1,-2} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{2} \, \big] \; + \; \frac{1}{18} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{2} \; \overline{y_{d}}{}^{2p} \; y_{d}{}^{i2p} \; y_{d}
                                                                                                                                               \frac{1}{1296}\; {g_{1}}^{4}\; \mathsf{LF}_{2,1,0}\left[\mathsf{m}_{1}\,,\, \mathsf{m}_{\bar{q}}^{\;\;i\,2}\right]\; \delta_{\,\dot{1}1\dot{1}2} + \frac{1}{1296}\; {g_{1}}^{4}\; \mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{1}\,,\, \mathsf{m}_{\bar{q}}^{\;\;\dot{1}2}\right]\; \delta_{\,\dot{1}1\dot{1}2} - \frac{1}{1296}\; {g_{1}}^{4}\; \mathsf{LF}_{2,2,-1}\left[\mathsf{m}_{1}\,,\, \mathsf{m}_{\bar{q}}^{\;\;\dot{1}2}\right]\; \delta_{\,\dot{1}1\dot{1}2} - \frac{1}{1296}\; {g_{1}}^{2}\; \mathsf{LF}_{2,2,-1}\left[\mathsf{m}_{1}\,,\, \mathsf{m}_{2}^{\;\;\dot{1}2}\right]\; \delta_{\,\dot{1}1\dot{1}2} + \frac{1}{1296}\; {g_{1}}^{2}\; \mathsf{LF}_{2,2,-1}\left[\mathsf{m}_{1}\,,\, \mathsf{m}_{2}^{\;\;\dot{1}2}\right]\; \delta_{\,\dot{1}1\dot{1}2} + \frac{1}{1296}\; {g_{1}}^{2}\; \mathsf{LF}_{2,2,-1}\left[\mathsf{m}_{1}\,,
                                                                                                                                               \frac{2}{9} \ g_{1}{}^{2} \ s_{\gamma}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ LF_{2,1,0} \big[ m_{1}, \ m_{\tilde{u}}{}^{p} \big] \ + \frac{4}{9} \ g_{1}{}^{2} \ s_{\gamma}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ LF_{3,1,-1} \big[ m_{1}, \ m_{\tilde{u}}{}^{p} \big] \ - \frac{4}{9} \ g_{1}{}^{2} \ s_{\gamma}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ LF_{3,1,-1} \big[ m_{1}, \ m_{\tilde{u}}{}^{p} \big] \ - \frac{4}{9} \ g_{1}{}^{2} \ s_{\gamma}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ LF_{3,1,-1} \big[ m_{1}, \ m_{\tilde{u}}{}^{p} \big] \ - \frac{4}{9} \ g_{1}{}^{2} \ s_{\gamma}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ LF_{3,1,-1} \big[ m_{1}, \ m_{\tilde{u}}{}^{p} \big] \ - \frac{4}{9} \ g_{1}{}^{2} \ s_{\gamma}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ LF_{3,1,-1} \big[ m_{1}, \ m_{\tilde{u}}{}^{p} \big] \ - \frac{4}{9} \ g_{1}{}^{2} \ s_{\gamma}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ LF_{3,1,-1} \big[ m_{1}, \ m_{\tilde{u}}{}^{p} \big] \ - \frac{4}{9} \ g_{1}{}^{2} \ s_{\gamma}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i2p} \ y_{u}{}^{i2p} \ LF_{3,1,-1} \big[ m_{1}, \ m_{\tilde{u}}{}^{p} \big] \ - \frac{4}{9} \ g_{1}{}^{2} \ s_{\gamma}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i2p} \ y_{u}{}^{i2p
                                                                                                                                               \frac{2}{9} \; \mathsf{g_1}^2 \; \mathsf{s_{\gamma}}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2p}} \; \mathsf{y_u}^{\mathsf{i1p}} \; \mathsf{LF_{4,1,-2}} \big[ \, \mathsf{m_1}, \; \mathsf{m_u^{-p}} \, \big] \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_2}, \; \mathsf{m_{\tilde{q}}^{\, i2}} \, \big] \; \delta_{\mathsf{i1i2}} \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_2}, \; \mathsf{m_{\tilde{q}}^{\, i2}} \, \big] \; \delta_{\mathsf{i1i2}} \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_2}, \; \mathsf{m_{\tilde{q}}^{\, i2}} \, \big] \; \delta_{\mathsf{i1i2}} \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_2}, \; \mathsf{m_{\tilde{q}}^{\, i2}} \, \big] \; \delta_{\mathsf{i1i2}} \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_2}, \; \mathsf{m_{\tilde{q}}^{\, i2}} \, \big] \; \delta_{\mathsf{i1i2}} \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_2}, \; \mathsf{m_{\tilde{q}}^{\, i2}} \, \big] \; \delta_{\mathsf{i1i2}} \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_2}, \; \mathsf{m_{\tilde{q}}^{\, i2}} \, \big] \; \delta_{\mathsf{i1i2}} \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_2}, \; \mathsf{m_{\tilde{q}}^{\, i2}} \, \big] \; \delta_{\mathsf{i1i2}} \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_2}, \; \mathsf{m_{\tilde{q}}^{\, i2}} \, \big] \; \delta_{\mathsf{i1i2}} \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_2}, \; \mathsf{m_{\tilde{q}}^{\, i2}} \, \big] \; \delta_{\mathsf{i1i2}} \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{G}_{\mathsf{i1i2}} \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{G}_{\mathsf{i1i2}} \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{g_2}^2 \; \mathsf{G}_{\mathsf{i1i2}} \; + \; \frac{1}{48} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{g
                                                                                                                                               \frac{1}{48}\; {g_{1}}^2\; {g_{2}}^2\; \mathsf{LF}_{2,2,-1}\big[\, \mathsf{m}_{2}\,,\,\, \mathsf{m}_{\bar{q}}^{-\dot{1}2}\,\big]\; \delta_{\dot{1}\dot{1}\dot{1}2} - \frac{1}{24}\; {g_{1}}^2\; {g_{2}}^2\; \mathsf{LF}_{3,1,-1}\big[\, \mathsf{m}_{2}\,,\,\, \mathsf{m}_{\bar{q}}^{-\dot{1}2}\,\big]\; \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{1}{24}\, {g_{1}}^2\; {g_{2}}^2\; \mathsf{LF}_{3,1,-1}\big[\, \mathsf{m}_{2}\,,\,\, \mathsf{m}_{\bar{q}}^{-\dot{1}2}\,\big]\; \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{24}\, {g_{2}}^2\; \mathsf{LF}_{3,1,-1}\big[\, \mathsf{m}_{2}\,,\,\, \mathsf{m}_{2}^{-\dot{1}2}\,\big]\; \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{24}\, {g_{2}}^2\; \mathsf{LF}_{3,1,-1}\big[\, \mathsf{m}_{2}\,,\,\, \mathsf{m}_{2}^{\dot{1}}\,\big]\; \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{24}\, {g_{2}}^2\; \mathsf{LF}_{3,1,-1}\big[\, \mathsf{m}_{2}\,,\,\,\, \mathsf{m}_{2}^{\dot{1}}\,\big]\; \delta_{\dot{1}\dot{1}\dot{1}} + \frac{1}{24}\, {g_{2}}^2\; \mathsf{LF}_{3,1,-1}\big[\, \mathsf{m}_{2}\,,\,\,\, \mathsf{m}_{2}\,\,\, \mathsf{m}_{2}\,\,\, \mathsf{LF}_{3,1,-1}\big[\,\, \mathsf{m}_{2}\,\,\,\, \mathsf{m}_{2}\,\,\, \mathsf{m}_{2
                                                                                                                                           \frac{1}{48}\;g_{1}{}^{2}\;g_{2}{}^{2}\;\mathsf{LF_{4,1,-2}}\big[\,\mathsf{m_{2}}\,,\,\mathsf{m_{\tilde{q}}}{}^{i2}\big]\;\,\delta_{i1i2}\,+\,\frac{2}{3}\;g_{3}{}^{2}\;c_{\gamma}{}^{2}\;\overline{y_{d}}{}^{i2p}\;y_{d}{}^{i1p}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{3}}\,,\,\mathsf{m_{\tilde{d}}}{}^{p}\big]\;-\,\frac{1}{2}\;\mathsf{m_{3}}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,\mathcal{C}_{i}^{2}\,\,
                                                                                                                                           \frac{4}{3}\ g_{3}{}^{2}\ c_{\gamma}{}^{2}\ \overline{y_{d}}{}^{i2p}\ y_{d}{}^{i1p}\ LF_{3,1,-1}\big[m_{3}\mbox{,}\ m_{\bar{d}}{}^{p}\big] + \frac{2}{3}\ g_{3}{}^{2}\ c_{\gamma}{}^{2}\ \overline{y_{d}}{}^{i2p}\ y_{d}{}^{i1p}\ LF_{4,1,-2}\big[m_{3}\mbox{,}\ m_{\bar{d}}{}^{p}\big] + \frac{2}{3}\ g_{3}{}^{2}\ c_{\gamma}{}^{2}\ \overline{y_{d}}{}^{i2p}\ y_{d}{}^{i2p}\ y_{d}{i2p}\ y_{d}{}^{i2p}\ y_{d}{}^{i2p}\ y_{d}{}^{i2p}\ y_{d}{}^{i2p}\
                                                                                                                                           \frac{1}{27}~g_{1}^{2}~g_{3}^{2}~\mathsf{LF}_{2,1,0}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,i\,2}\,\big]~\delta_{\text{ili}2}\,+\,\frac{1}{27}~g_{1}^{2}~g_{3}^{2}~\mathsf{LF}_{2,2,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,i\,2}\,\big]~\delta_{\text{ili}2}\,-\,\frac{1}{27}\,g_{1}^{2}\,g_{3}^{2}\,\mathsf{LF}_{2,2,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,i\,2}\,\big]~\delta_{\text{ili}2}\,-\,\frac{1}{27}\,g_{1}^{2}\,g_{3}^{2}\,\mathsf{LF}_{2,2,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,i\,2}\,\big]
                                                                                                                                               \frac{2}{27}\; {g_{1}}^{2}\; {g_{3}}^{2}\; LF_{3,1,-1}\!\left[\,m_{3}\,,\; m_{\tilde{q}}^{-i\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{1}{27}\; {g_{1}}^{2}\; {g_{3}}^{2}\; LF_{4,1,-2}\!\left[\,m_{3}\,,\; m_{\tilde{q}}^{-i\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}2} - \frac{1}{27}\; g_{1}^{2}\; g_{3}^{2}\; LF_{4,1,-2}\!\left[\,m_{3}\,,\; m_{\tilde{q}}^{-i\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{27}\; g_{1}^{2}\; g_{3}^{2}\; LF_{4,1,-2}\!\left[\,m_{3}\,,\; m_{\tilde{q}}^{-i\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{27}\; g_{1}^{2}\; g_{3}^{2}\; LF_{4,1,-2}\!\left[\,m_{3}\,,\; m_{\tilde{q}}^{-i\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}} + \frac{1}{27}\; g_{1}^{2}\; g_{3}^{2}\; LF_{4,1,-2}\!\left[\,m_{3}\,,\; m_{\tilde{q}}^{-i\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}} + \frac{1}{27}\; g_{1}^{2}\; g_{1}^{2}\; g_{2}^{2}\; G_{4,1,-2}\!\left[\,m_{3}\,,\; m_{\tilde{q}}^{2}\,\,\right]\; \delta_{\dot{1}\dot{1}} + \frac{1}{27}\; g_{1}^{2}\; g_{2}^{2}\; G_{4,1,-2}\!\left[\,m_{3}\,,\; m_{\tilde{q}}^{2}\,\,\right]\; \delta_{\dot{1}} + \frac
                                                                                                                                                                             g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; LF_{2,1,0}\left[\,m_3\,,\; m_u^{-p}\,\right] \; + \; \tfrac{4}{3}\; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; LF_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; LF_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; LF_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; LF_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; LF_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; LF_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; LF_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; LF_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; LF_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; LF_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; LF_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; F_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; F_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; F_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; s_\gamma{}^2\; \overline{y_u}{}^{i2p}\; y_u{}^{i1p}\; F_{3,1,-1}\!\left[\,m_3\,,\; m_u^{-p}\,\right] \; - \; \frac{4}{3} \; g_3{}^2\; g_3{
                                                                                                                                               \frac{2}{3}~g_{3}{}^{2}~s_{\gamma}{}^{2}~\overline{y_{u}}{}^{i2p}~y_{u}{}^{i1p}~\mathsf{LF_{4,1,-2}}\big[\,\mathsf{m_{3}}\,,\,\mathsf{m_{u}^{\,p}}\,\big]\,+\,\frac{1}{18}~g_{1}{}^{2}~\overline{y_{d}}{}^{i2p}~y_{d}{}^{i1p}~\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{d}^{\,p}}\,,\,\,\widetilde{\mu}\,\big]\,-\,\frac{1}{18}\,g_{1}{}^{2}~\overline{y_{d}}{}^{i2p}~y_{d}{}^{i1p}~\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{d}^{\,p}}\,,\,\,\widetilde{\mu}\,\big]\,-\,\frac{1}{18}\,g_{1}{}^{2}~\overline{y_{d}}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{d}^{\,p}}\,,\,\,\widetilde{\mu}\,\big]\,-\,\frac{1}{18}\,g_{1}{}^{2}~\overline{y_{d}}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{d}^{\,p}}\,,\,\,\widetilde{\mu}\,\big]\,-\,\frac{1}{18}\,g_{1}{}^{2}~\overline{y_{d}}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{d}^{\,p}}\,,\,\,\widetilde{\mu}\,\big]\,-\,\frac{1}{18}\,g_{1}{}^{2}~\overline{y_{d}}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{d}^{\,p}}\,,\,\,\widetilde{\mu}\,\big]\,-\,\frac{1}{18}\,g_{1}{}^{2}~\overline{y_{d}}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i2p}~y_{d}{}^{i
                                                                                                                                               \frac{1}{36} \ g_1^2 \ \overline{y_d}^{i2p} \ y_d^{i1p} \ \mathsf{LF}_{2,2,-1} \big[ \ \mathsf{m}_{\bar{d}}^{\ p} \ , \ \widetilde{\mu} \, \big] - \frac{1}{36} \ g_1^2 \ \overline{y_d}^{i2p} \ y_d^{\ i1p} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{d}}^{\ p} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1^2 \ \overline{y_d}^{i2p} \ y_d^{\ i1p} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{d}}^{\ p} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1^2 \ \overline{y_d}^{i2p} \ y_d^{\ i1p} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{d}}^{\ p} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1^2 \ \overline{y_d}^{i2p} \ y_d^{\ i1p} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{d}}^{\ p} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1^2 \ \overline{y_d}^{\ i2p} \ y_d^{\ i1p} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{d}}^{\ p} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1^2 \ \overline{y_d}^{\ i2p} \ y_d^{\ i1p} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{d}}^{\ p} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1^2 \ \overline{y_d}^{\ i2p} \ y_d^{\ i1p} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{d}}^{\ p} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1^2 \ \overline{y_d}^{\ i2p} \ y_d^{\ i1p} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{d}}^{\ p} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1^2 \ \overline{y_d}^{\ i2p} \ y_d^{\ i1p} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{d}}^{\ p} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1^2 \ \overline{y_d}^{\ i2p} \ y_d^{\ i1p} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{d}}^{\ p} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1^2 \ \overline{y_d}^{\ i2p} \ y_d^{\ i2p} \ y_d^{\ i2p} \ y_d^{\ i2p} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{d}}^{\ p} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1^2 \ y_d^{\ i2p} \ y_d^{\ i2
                                                                                                                                               \frac{1}{18} \ g_1^{\ 2} \ \left( c_{\scriptscriptstyle Y} \ \overline{a_d}^{pr} - s_{\scriptscriptstyle Y} \ \widetilde{\mu} \ \overline{y_d}^{pr} \right) \ \left( c_{\scriptscriptstyle Y} \ a_d^{pr} - s_{\scriptscriptstyle Y} \ \widetilde{\mu} \ y_d^{pr} \right) \ \mathsf{LF}_{2,2,9} \left[ \, \mathsf{m}_{\bar{d}}^{\ r} \, , \ \mathsf{m}_{\bar{q}}^{\ p} \, \right] \ \delta_{\texttt{ili}2} - \delta_{\texttt{il}2} - \delta_{
                                                                                                                                               \frac{1}{36}~g_{1}^{2}~\left(c_{\gamma}~\overline{a_{d}}^{pr}-s_{\gamma}~\widetilde{\mu}~\overline{y_{d}}^{pr}\right)~\left(c_{\gamma}~a_{d}^{pr}-s_{\gamma}~\widetilde{\mu}~y_{d}^{pr}\right)~\mathsf{LF_{3,2,-1}}\!\left[\mathsf{m_{\bar{d}}}^{r},~\mathsf{m_{\bar{q}}}^{p}\right]~\delta_{\texttt{ili2}}+\frac{1}{36}~g_{1}^{2}
                                                                                                                                               \frac{1}{18} \; g_1^2 \; \left( c_\gamma \; \overline{a_e}^{pr} - s_\gamma \, \widetilde{\mu} \; \overline{y_e}^{pr} \right) \; \left( c_\gamma \; a_e^{\; pr} - s_\gamma \, \widetilde{\mu} \; y_e^{\; pr} \right) \; \mathsf{LF}_{2,2,0} \left[ \, \mathsf{m}_{\tilde{e}}^{\; r} \, , \; \mathsf{m}_{\tilde{l}}^{\; p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \mathsf{LF}_{2,2,0} \left[ \, \mathsf{m}_{\tilde{e}}^{\; r} \, , \; \mathsf{m}_{\tilde{l}}^{\; p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \mathsf{LF}_{2,2,0} \left[ \, \mathsf{m}_{\tilde{e}}^{\; r} \, , \; \mathsf{m}_{\tilde{l}}^{\; p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; - \left( c_\gamma \; a_e^{\; pr} - s_\gamma \; \widetilde{\mu} \; y_e^{\; pr} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; \delta_{\dot{1}\dot{2}} \; \delta_{\dot{1}\dot{1}\dot{2}} \; \delta_{\dot{1}\dot{1}\dot{2}} \; \delta_{\dot{1}\dot{1}\dot{
                                                                                                                                               \frac{1}{36}~g_{1}^{2}~\left(c_{\gamma}~\overline{a_{e}}^{pr}-s_{\gamma}~\widetilde{\mu}~\overline{y_{e}}^{pr}\right)~\left(c_{\gamma}~a_{e}^{pr}-s_{\gamma}~\widetilde{\mu}~y_{e}^{pr}\right)~\mathsf{LF}_{3,2,-1}\!\left[\mathsf{m}_{\tilde{e}}^{~r},~\mathsf{m}_{\tilde{l}}^{~p}\right]~\delta_{\texttt{11i}2}-c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}^{2}+c_{\mathsf{11i}2}
                                                                                                                                               \frac{1}{18} \; g_1^2 \; \left( c_\gamma \; \overline{a_e}^{\text{pr}} - s_\gamma \, \widetilde{\mu} \; \overline{y_e}^{\text{pr}} \right) \; \left( c_\gamma \; a_e^{\, \text{pr}} - s_\gamma \, \widetilde{\mu} \; y_e^{\, \text{pr}} \right) \; \text{LF}_{3,1,0} \left[ \, \textbf{m}_{\widetilde{l}}^{\, \text{p}} \, , \; \textbf{m}_{\widetilde{e}}^{\, \text{r}} \, \right] \; \delta_{\text{11i2}} - \frac{1}{12} \; \delta_{\text{11i2}
                                                                                                                                               \frac{1}{18} \ g_1^2 \ \left( c_{\curlyvee} \ \overline{a_e}^{\text{pr}} - s_{\curlyvee} \ \widetilde{\mu} \ \overline{y_e}^{\text{pr}} \right) \ \left( c_{\curlyvee} \ a_e^{\text{pr}} - s_{\curlyvee} \ \widetilde{\mu} \ y_e^{\text{pr}} \right) \ \mathsf{LF}_{3,2,-1} \big[ \ \mathsf{m}_{\tilde{l}}^{\ p}, \ \mathsf{m}_{\tilde{e}}^{\ r} \big] \ \delta_{\text{ili2}} + \delta_{\text{il
                                                                                                                                               \frac{1}{8}\;{g_{1}}^{2}\;\left(c_{\gamma}\;\overline{a_{e}}^{\text{pr}}-s_{\gamma}\;\widetilde{\mu}\;\overline{y_{e}}^{\text{pr}}\right)\;\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;\widetilde{\mu}\;y_{e}^{\;\text{pr}}\right)\;\mathsf{LF_{4,1,-1}}\!\left[\mathsf{m_{\tilde{l}}}^{\;\text{p}},\;\mathsf{m_{\tilde{e}}}^{\;\text{r}}\right]\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;\widetilde{\mu}\;y_{e}^{\;\text{pr}}\right)\;\mathsf{LF_{4,1,-1}}\left[\mathsf{m_{\tilde{l}}}^{\;\text{p}},\;\mathsf{m_{\tilde{e}}}^{\;\text{r}}\right]\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;\widetilde{\mu}\;y_{e}^{\;\text{pr}}\right)\;\mathsf{LF_{4,1,-1}}\left[\mathsf{m_{\tilde{l}}}^{\;\text{p}},\;\mathsf{m_{\tilde{e}}}^{\;\text{r}}\right]\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;\widetilde{\mu}\;y_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;\widetilde{\mu}\;y_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;\widetilde{\mu}\;y_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;\widetilde{\mu}\;y_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;\widetilde{\mu}\;y_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;\widetilde{\mu}\;y_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;\widetilde{\mu}\;y_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;\widetilde{\mu}\;y_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;\widetilde{\mu}\;y_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr}}\right)\;\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}\;a_{e}^{\;\text{pr}}-s_{\gamma}\;a_{e}^{\;\text{pr
                                                                                                                                               \frac{1}{18} \; {g_{1}}^{2} \; \left( c_{\gamma} \; \overline{a_{e}}^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \; \overline{y_{e}}^{\text{pr}} \right) \; \left( c_{\gamma} \; a_{e}^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \; y_{e}^{\text{pr}} \right) \; \mathsf{LF}_{5,1,-2} \left[ \mathsf{m}_{\tilde{l}}^{\; p}, \; \mathsf{m}_{\tilde{e}}^{\; r} \right] \; \delta_{\text{ili2}} - \delta_{\text{ili2
                                                                                                                                               \frac{1}{18} \ g_1^2 \ \left( c_{\curlyvee} \ \overline{a_d}^{pr} - s_{\curlyvee} \ \widetilde{\mu} \ \overline{y_d}^{pr} \right) \ \left( c_{\curlyvee} \ a_d^{pr} - s_{\curlyvee} \ \widetilde{\mu} \ y_d^{pr} \right) \ \mathsf{LF_{3,1,0}} \left[ \ \mathsf{m_{\tilde{q}}}^p \ , \ \mathsf{m_{\tilde{d}}}^r \right] \ \delta_{\texttt{11i2}} - \left( c_{\curlyvee} \ a_d^{pr} - s_{\curlyvee} \ \widetilde{\mu} \ y_d^{pr} \right) \ \mathsf{LF_{3,1,0}} \left[ \ \mathsf{m_{\tilde{q}}}^p \ , \ \mathsf{m_{\tilde{d}}}^r \right] \ \delta_{\texttt{11i2}} - \left( c_{\curlyvee} \ a_d^{pr} - s_{\curlyvee} \ \widetilde{\mu} \ y_d^{pr} \right) \ \mathsf{LF_{3,1,0}} \left[ \ \mathsf{m_{\tilde{q}}}^p \ , \ \mathsf{m_{\tilde{d}}}^r \right] \ \delta_{\texttt{11i2}} - \left( c_{\curlyvee} \ a_d^{pr} - s_{\curlyvee} \ \widetilde{\mu} \ y_d^{pr} \right) \ \mathsf{LF_{3,1,0}} \left[ \ \mathsf{m_{\tilde{q}}}^p \ , \ \mathsf{m_{\tilde{d}}}^r \right] \ \delta_{\texttt{11i2}} - \left( c_{\curlyvee} \ a_d^{pr} - s_{\curlyvee} \ \widetilde{\mu} \ y_d^{pr} \right) \ \mathsf{LF_{3,1,0}} \left[ \ \mathsf{m_{\tilde{q}}}^p \ , \ \mathsf{m_{\tilde{d}}}^r \right] \ \delta_{\texttt{11i2}} - \left( c_{\curlyvee} \ a_d^{pr} - s_{\curlyvee} \ \widetilde{\mu} \ y_d^{pr} \right) \ \mathsf{LF_{3,1,0}} \left[ \ \mathsf{m_{\tilde{q}}}^p \ , \ \mathsf{m_{\tilde{d}}}^r \right] \ \delta_{\texttt{11i2}} - \left( c_{\curlyvee} \ \mathsf{m_{\tilde{d}}}^p \right) \ \mathsf{LF_{3,1,0}} \left[ \ \mathsf{m_{\tilde{q}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right] \ \delta_{\texttt{11i2}} - \left( c_{\curlyvee} \ \mathsf{m_{\tilde{d}}}^p \right) \ \mathsf{LF_{3,1,0}} \left[ \ \mathsf{m_{\tilde{q}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right] \ \delta_{\texttt{11i2}} - \left( c_{\curlyvee} \ \mathsf{m_{\tilde{d}}}^p \right) \ \mathsf{LF_{3,1,0}} \left[ \ \mathsf{m_{\tilde{q}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right] \ \delta_{\texttt{11i2}} - \left( c_{\mathclap} \ \mathsf{m_{\tilde{d}}}^p \right) \ \mathsf{LF_{3,1,0}} \left[ \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right] \ \delta_{\texttt{11i2}} - \left( c_{\mathclap} \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right) \ \mathsf{LF_{3,1,0}} \left[ \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right] \ \delta_{\texttt{11i2}} - \left( c_{\mathclap} \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right) \ \mathsf{LF_{3,1,0}} \left[ \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right] \ \delta_{\texttt{11i2}} + \left( c_{\mathclap} \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right) \ \mathsf{LF_{3,1,0}} \left[ \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right] \ \delta_{\texttt{11i2}} + \left( c_{\mathclap} \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right) \ \delta_{\texttt{11i2}} + \left( c_{\mathclap} \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right) \ \delta_{\texttt{11i2}} + \left( c_{\mathclap} \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right) \ \delta_{\texttt{11i2}} + \left( c_{\mathclap} \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right) \ \delta_{\texttt{11i2}} + \left( c_{\mathclap} \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right) \ \delta_{\texttt{11i2}} + \left( c_{\mathclap} \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right) \ \delta_{\texttt{11i2}} + \left( c_{\mathclap} \ \mathsf{m_{\tilde{d}}}^p \ , \ \mathsf{m_{\tilde{d}}}^p \right) \ \delta_{\texttt{11i2}} + \left( c_{\mathclap}
                                                                                                                                               \frac{1}{18} \ g_1^2 \ \left( c_\gamma \ \overline{a_d}^{pr} - s_\gamma \ \widetilde{\mu} \ \overline{y_d}^{pr} \right) \ \left( c_\gamma \ a_d^{pr} - s_\gamma \ \widetilde{\mu} \ y_d^{pr} \right) \ \mathsf{LF}_{3,2,-1} \big[ \ \mathsf{m_{\bar{q}}}^p, \ \mathsf{m_{\bar{d}}}^r \big] \ \delta_{\texttt{ili}2} + c_\gamma \ \widetilde{\mu} \ \mathsf{m_{\bar{q}}}^p, \ \mathsf{m_{\bar{q}}}^p \ \mathsf{m_{\bar{q}}}^p, \ \mathsf{m_{\bar{q}}}^p \ 
                                                                                                                                               \frac{5}{24}~g_{1}^{2}~\left(c_{\gamma}~\overline{a_{d}}^{pr}-s_{\gamma}~\widetilde{\mu}~\overline{y_{d}}^{pr}\right)~\left(c_{\gamma}~a_{d}^{pr}-s_{\gamma}~\widetilde{\mu}~y_{d}^{pr}\right)~\mathsf{LF_{4,1,-1}}\left[\mathsf{m_{\tilde{q}}}^{p},~\mathsf{m_{\tilde{d}}}^{r}\right]~\delta_{\texttt{ili2}}-\frac{1}{2}
                                                                                                                                                                                      g_{1}^{2} \, \left( c_{\scriptscriptstyle Y} \, \overline{a_{d}}^{\text{pr}} - s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, \overline{y_{d}}^{\text{pr}} \right) \, \left( c_{\scriptscriptstyle Y} \, a_{d}^{\text{pr}} - s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{d}^{\text{pr}} \right) \, \mathsf{LF}_{5,1,-2} \left[ \, \mathsf{m}_{\bar{\mathsf{q}}}^{\,\, \mathsf{p}} \, , \, \, \mathsf{m}_{\bar{\mathsf{d}}}^{\,\, \mathsf{r}} \, \right] \, \delta_{\text{ili2}} - \delta_{\text{ili2}} - \delta_{\text{ili2}} + \delta_{\text{
                                                                                                                                               \frac{1}{36}~g_{1}^{2}~\left(s_{\gamma}~\overline{a_{u}}^{pr}-\tilde{\mu}~c_{\gamma}~\overline{y_{u}}^{pr}\right)~\left(s_{\gamma}~a_{u}^{~pr}-\tilde{\mu}~c_{\gamma}~y_{u}^{~pr}\right)~\mathsf{LF}_{2,2,9}\left[\mathsf{m}_{\tilde{q}}^{~p},~\mathsf{m}_{\tilde{u}}^{~r}\right]~\delta_{\texttt{11i}2}~\mathsf{+}
                                                                                                                                               \frac{1}{72} \ g_1^{\ 2} \ \left( s_\gamma \ \overline{a_u}^{pr} - \widetilde{\mu} \ c_\gamma \ \overline{y_u}^{pr} \right) \ \left( s_\gamma \ a_u^{pr} - \widetilde{\mu} \ c_\gamma \ y_u^{pr} \right) \ \mathsf{LF}_{3,2,-1} \! \left[ \mathsf{m}_{\bar{q}}^{\ p}, \ \mathsf{m}_{\bar{u}}^{\ r} \right] \ \delta_{\texttt{ili}2} - 2 \ \mathsf{m}_{\bar{q}}^{\ p} + 2 \ \mathsf{m}_{\bar{q}}^{\ p} \right) \ \delta_{\mathsf{il}2} - 2 \ \mathsf{m}_{\bar{q}}^{\ p} + 2 \
                                                                                                                                               \frac{1}{648} \; \mathsf{g_1}^4 \; \mathsf{LF}_{2,1,0} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \, i2} \, , \; \mathsf{m_1} \, \right] \; \delta_{\, \dot{1} \, \dot{1} \, \dot{2}} \, + \, \frac{1}{1296} \; \mathsf{g_1}^4 \; \mathsf{LF}_{3,1,-1} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \, \dot{i}} \, 2 \, , \; \mathsf{m_1} \, \right] \; \delta_{\, \dot{1} \, \dot{1} \, \dot{2}} \, - \, \frac{1}{1296} \; \mathsf{m_1} \, + \, \frac{1}{1296} \; \mathsf{m_2}^{\, \, \dot{1}} \, + \, \frac{1}{1296} \; \mathsf{m_3}^{\, \, \, \dot{1}} \, + \, \frac{1}{1296} \; \mathsf{m_3}^{\, \, \dot{1}} \, + \, \frac{1}{1296} \; + \, \frac{1}{1296} \; + \, \frac{1}{1296} \; + \, \frac{1}{1296} \; + \, \frac{1}{1296}
                                                                                                                                               \frac{1}{24}~g_{1}^{2}~g_{2}^{2}~\mathsf{LF}_{2,1,9}\left[\,\mathsf{m_{\tilde{q}}}^{\,\,\dot{1}2}\,,~\mathsf{m}_{2}\,\right]~\delta_{\dot{1}\dot{1}\dot{1}2}~+~\\ \frac{1}{48}~g_{1}^{2}~g_{2}^{2}~\mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m_{\tilde{q}}}^{\,\,\dot{1}2}\,,~\mathsf{m}_{2}\,\right]~\delta_{\dot{1}\dot{1}\dot{1}2}~-~\\ \frac{1}{48}~g_{1}^{2}~g_{2}^{2}~\mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m_{\tilde{q}}}^{\,\,\dot{1}2}\,,~\mathsf{m}_{2}\,\right]~\delta_{\dot{1}\dot{1}\dot{1}2}~-~\\ \frac{1}{48}~g_{1}^{2}~g_{2}^{2}~\mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m_{\tilde{q}}}^{\,\,\dot{1}2}\,,~\mathsf{m}_{2}\,\right]~\delta_{\dot{1}\dot{1}\dot{1}2}~-~\\ \frac{1}{48}~g_{1}^{2}~g_{2}^{2}~\mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m_{\tilde{q}}}^{\,\,\dot{1}2}\,,~\mathsf{m_{2}}\,\right]~\delta_{\dot{1}\dot{1}\dot{1}2}~-~\\ \frac{1}{48}~g_{1}^{2}~g_{2}^{2}~\mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m_{\tilde{q}}}^{\,\,\dot{1}2}\,,~\mathsf{m_{2}}\,\right]~\delta_{\dot{1}\dot{1}\dot{1}2}~-~\\ \frac{1}{48}~g_{1}^{2}~g_{2}^{2}~\mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m_{\tilde{q}}}^{\,\,\dot{1}2}\,,~\mathsf{m_{2}}\,\right]~\delta_{\dot{1}\dot{1}\dot{1}\dot{1}2}~-~\\ \frac{1}{48}~g_{1}^{2}~g_{2}^{2}~\mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m_{\tilde{q}}}^{\,\,\dot{1}2}\,,~\mathsf{m_{2}}\,\right]~\delta_{\dot{1}\dot{1}\dot{1}\dot{1}2}~-~\\ \frac{1}{48}~g_{1}^{2}~g_{2}^{2}~\mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m_{\tilde{q}}}^{\,\,\dot{1}2}\,,~\mathsf{m_{2}}\,\right]~\delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}}~
                                                                                                                                               \frac{2}{27}\; g_{1}{}^{2}\; g_{3}{}^{2}\; \mathsf{LF}_{2,1,0} \big[\, \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\dot{1}2} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} \,+\, \frac{1}{27}\; g_{1}{}^{2}\; g_{3}{}^{2}\; \mathsf{LF}_{3,1,-1} \big[\, \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\dot{1}2} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} \,-\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}} \,,\,\, \mathsf{m}_{3}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{3} \,,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}}{}^{\dot{\mathsf{q}}} \,,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{3} \,,\,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}} \,,\,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{3} \,,\,\,\, \mathsf{m}_{3} \, \big] \; \delta_{\dot{\mathsf{q}}\dot{\mathsf{q}}} \,,\,\,\, \mathsf{m}_{3} \, \big[\, \mathsf{m}_{
                                                                                                                                               \frac{1}{9} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2p}} \; \mathsf{y_u}^{\mathsf{i1p}} \; \mathsf{LF_{2,1,0}} \left[ \mathsf{m_{\tilde{\mathsf{u}}}}^{\mathsf{p}} \text{, } \widetilde{\mu} \right] \; + \\ \frac{1}{18} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2p}} \; \mathsf{y_u}^{\mathsf{i1p}} \; \mathsf{LF_{2,2,-1}} \left[ \mathsf{m_{\tilde{\mathsf{u}}}}^{\mathsf{p}} \text{, } \widetilde{\mu} \right] \; + \\ \frac{1}{18} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2p}} \; \mathsf{y_u}^{\mathsf{i1p}} \; + \\ \frac{1}{18} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2p}} \; \mathsf{y_u}^{\mathsf{i1p}} \; + \\ \frac{1}{18} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2p}} \; \mathsf{y_u}^{\mathsf{i1p}} \; + \\ \frac{1}{18} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2p}} \; + \\ \frac{1}{18} \; \mathsf{g_1}^2 \; - \\ \frac{1}{18} \; \mathsf{g_1}^2 \; + \\ \frac{1}{18} \; \mathsf{g_1}^2 \; - \\ \frac{1}{18} \; \mathsf{g_1}^2 \; - \\ \frac{1}{18} \; - \\ \frac
                                                                                                                                                                     \mathsf{LF_{3,1,-1}}\big[\mathsf{m}_{\tilde{\mathsf{u}}}^{\mathsf{p}},\; \tilde{\mu}\big] \; + \; \tfrac{1}{36} \; \mathsf{g_{1}}^{2} \; \left(\mathsf{s}_{\curlyvee} \; \overline{\mathsf{a}_{\mathsf{u}}}^{\mathsf{pr}} - \tilde{\mu} \; \mathsf{c}_{\curlyvee} \; \overline{\mathsf{y}_{\mathsf{u}}}^{\mathsf{pr}}\right) \; \left(\mathsf{s}_{\curlyvee} \; \mathsf{a}_{\mathsf{u}}^{\mathsf{pr}} - \tilde{\mu} \; \mathsf{c}_{\curlyvee} \; \mathsf{y}_{\mathsf{u}}^{\mathsf{pr}}\right) \; \mathsf{LF_{3,1,0}}\big[\mathsf{m}_{\tilde{\mathsf{u}}}^{\mathsf{r}},\; \mathsf{m}_{\tilde{\mathsf{q}}}^{\mathsf{p}}\big] \; \delta_{\mathsf{11i2}} \; + \; \mathsf{m}_{\mathsf{u}}^{\mathsf{p}} \; 
                                                                                                                                               \frac{1}{36}~g_{1}^{2}~\left(s_{\gamma}^{}~\overline{a_{u}^{}}^{pr}-\widetilde{\mu}~c_{\gamma}^{}~\overline{y_{u}^{}}^{pr}\right)~\left(s_{\gamma}^{}~a_{u}^{}^{pr}-\widetilde{\mu}~c_{\gamma}^{}~y_{u}^{}^{pr}\right)~\mathsf{LF}_{3,2,-1}\!\left[\mathfrak{m}_{\tilde{u}}^{}^{r},~\mathfrak{m}_{\tilde{q}}^{-\tilde{p}}\right]~\delta_{1112}^{}~+
                                                                                                                                               \frac{1}{12} \ g_1^{\ 2} \ \left(s_{\curlyvee} \ \overline{a_u}^{pr} - \widetilde{\mu} \ c_{\curlyvee} \ \overline{y_u}^{pr}\right) \ \left(s_{\curlyvee} \ a_u^{pr} - \widetilde{\mu} \ c_{\curlyvee} \ y_u^{pr}\right) \ \mathsf{LF_{4,1,-1}} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ p}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ p}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ p}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ p}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ p}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ p}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ p}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ p}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ p}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ p}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ p}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ p}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ p}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , \ m_{\tilde{q}}^{\ r}\right] \ \delta_{1112} - \frac{1}{12} \left[m_{\tilde{u}}^{\ r} \ , 
                                                                                                                                               \frac{1}{6}~g_{1}^{2}~\left(s_{\gamma}~\overline{a_{u}}^{pr}-\widetilde{\mu}~c_{\gamma}~\overline{y_{u}}^{pr}\right)~\left(s_{\gamma}~a_{u}^{pr}-\widetilde{\mu}~c_{\gamma}~y_{u}^{pr}\right)~\mathsf{LF_{5,1,-2}}\big[\mathsf{m}_{\widetilde{u}}^{~r},~\mathsf{m}_{\widetilde{q}}^{~p}\big]~\delta_{\texttt{11i}2}-\mathsf{m}_{\mathtt{11i}2}^{-p}
                                                                                                                                               \delta_{\texttt{ili2}} + \frac{1}{9} \, \, \mathsf{m_1} \, \, \mathsf{s_{\gamma}} \, \widetilde{\mu} \, \, \mathsf{c_{\gamma}} \, \, \mathsf{g_1}^4 \, \, \mathsf{LF_{5,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_1}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_1}^2 \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_1}^2 \, \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}{24} \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \, [\widetilde{\mu}, \, \, \mathsf{m_2}] \, \, \delta_{\texttt{ili2}} - \frac{5}
                                                                                                                                                                             \mathsf{m}_2 \; \mathsf{s}_{\gamma} \; \tilde{\mu} \; \mathsf{c}_{\gamma} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF}_{4,1,-1} [\, \tilde{\mu} \,, \; \mathsf{m}_2 \,] \; \delta_{\mathsf{ili}2} + \frac{1}{6} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF}_{\mathsf{5,1,-3}} [\, \tilde{\mu} \,, \; \mathsf{m}_2 \,] \; \delta_{\mathsf{ili}2} + \frac{1}{6} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF}_{\mathsf{5,1,-3}} [\, \tilde{\mu} \,, \; \mathsf{m}_2 \,] \; \delta_{\mathsf{ili}2} + \frac{1}{6} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF}_{\mathsf{5,1,-3}} [\, \tilde{\mu} \,, \; \mathsf{m}_2 \,] \; \delta_{\mathsf{ili}2} + \frac{1}{6} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF}_{\mathsf{5,1,-3}} [\, \tilde{\mu} \,, \; \mathsf{m}_2 \,] \; \delta_{\mathsf{ili}2} + \frac{1}{6} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF}_{\mathsf{5,1,-3}} [\, \tilde{\mu} \,, \; \mathsf{m}_2 \,] \; \delta_{\mathsf{5l}2} [\, \tilde{\mu} \,, \; \mathsf{m}_2 \,] \; \delta_{\mathsf{5l}2} [\, \tilde{\mu} \,, \; \mathsf{m}_3 \,] \; \delta_{\mathsf{5l}2} [\, \tilde{\mu} \,, \; \mathsf{m}_3 \,] \; \delta_{\mathsf{5l}3} [\, \tilde{\mu} \,, \;
                                                                                                                                               \frac{1}{3}\;\mathsf{m}_2\;\mathsf{s}_{\gamma}\;\tilde{\mu}\;\mathsf{c}_{\gamma}\;\mathsf{g_1}^2\;\mathsf{g_2}^2\;\mathsf{LF}_{5,1,-2}[\,\tilde{\mu},\,\mathsf{m}_2\,]\;\;\delta_{\mathsf{1112}}-\frac{1}{\mathsf{36}}\;\mathsf{g_1}^2\;\overline{\mathsf{y_d}}^{\mathsf{12p}}\;\mathsf{y_d}^{\mathsf{11p}}\;\mathsf{LF}_{2,1,0}\big[\,\tilde{\mu},\,\mathsf{m_d}^{\mathsf{-p}}\big]\;-
                                                                                                                                                   \frac{5}{72} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} \; \mathsf{LF_{3,1,-1}} \big[ \, \widetilde{\boldsymbol{\mu}} \, , \, \, \mathsf{m_d^{-p}} \big] \; + \; \frac{1}{72} \; \, \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} \; \mathsf{LF_{4,1,-2}} \big[ \, \widetilde{\boldsymbol{\mu}} \, , \, \, \mathsf{m_d^{-p}} \big] \; + \; \frac{1}{72} \; \, \mathsf{g_1}^2 \; \, \, \mathsf{g_1}^2 \; \, \, \mathsf{y_d^{-12p}} \; \, \mathsf{y_d^{-13p}} \; \mathsf{LF_{4,1,-2}} \big[ \, \widetilde{\boldsymbol{\mu}} \, , \, \, \, \, \mathsf{m_d^{-p}} \big] \; + \; \frac{1}{72} \; \, \mathsf{g_1}^2 \; \, \, \, \, \mathsf{g_1}^2 \; \, \, \mathsf{g_1}^2 \; \, \mathsf{g_1}^2 
                                                                                                                                               \frac{1}{2}\left(c_{\gamma}^{2}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{i2p}\,y_{d}^{rp}\,y_{d}^{i1s}-s_{\gamma}^{2}\,\overline{y_{u}}^{rs}\,\overline{y_{u}}^{i2p}\,y_{u}^{rp}\,y_{u}^{i1s}\right)\,\mathsf{LF}_{2,1,0}\big[\widetilde{\mu}\,,\,\mathsf{m}_{\tilde{q}}^{2}\big]
                                                                                                                                               \left(-\,c_{\gamma}^{\,2}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{i2p}\,y_{d}^{\,rp}\,y_{d}^{\,i1s}\,+\,s_{\gamma}^{\,2}\,\overline{y_{u}}^{rs}\,\overline{y_{u}}^{i2p}\,y_{u}^{\,rp}\,y_{u}^{\,i1s}\right)\,\mathsf{LF_{3,1,-1}}\big[\,\widetilde{\mu}\,,\,\mathsf{m}_{\widetilde{q}}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,\widetilde{\mu}_{1,1}^{\,-1}\big[\,
                                                                                                                                                                                      \left(c_{\gamma}^{2}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{i2p}\,y_{d}^{\,rp}\,y_{d}^{\,i1s}-s_{\gamma}^{\,2}\,\overline{y_{u}}^{rs}\,\overline{y_{u}}^{i2p}\,y_{u}^{\,rp}\,y_{u}^{\,i1s}\right)\,LF_{4,1,-2}\big[\widetilde{\mu}\,,\,m_{\tilde{q}}^{\,r}\big]\,+
                                                                                                                                               \frac{1}{18} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,1,0} \big[ \widetilde{\mu} \, , \ \mathsf{m}_{\widetilde{u}}{}^p \big] \, + \, \frac{1}{72} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{m}_{\widetilde{u}}{}^p \big] \, + \, \frac{1}{72} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{m}_{\widetilde{u}}{}^p \big] \, + \, \frac{1}{72} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{m}_{\widetilde{u}}{}^p \big] \, + \, \frac{1}{72} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{m}_{\widetilde{u}}{}^p \big] \, + \, \frac{1}{72} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{m}_{\widetilde{u}}{}^p \big] \, + \, \frac{1}{72} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{m}_{\widetilde{u}}{}^p \big] \, + \, \frac{1}{72} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{m}_{\widetilde{u}}{}^p \big] \, + \, \frac{1}{72} \ g_1{}^2 \ y_u{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{m}_{\widetilde{u}}{}^p \big] \, + \, \frac{1}{72} \ g_1{}^2 \ y_u{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{m}_{\widetilde{u}}{}^p \big] \, + \, \frac{1}{72} \ g_1{}^2 \ y_u{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{m}_{\widetilde{u}}{}^p \big] \, + \, \frac{1}{72} \ g_1{}^2 \ y_u{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{m}_{\widetilde{u}}{}^p \big] \, + \, \frac{1}{72} \ \mathsf{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{LF}_{3,1} \big[ \widetilde{\mu} \, , \ \mathsf{LF}
                                                                                                                                                                                                                                                                                                                                                                                 f^{12p} y_u^{\ i1p} \ LF_{4,1,-2} \left[ \widetilde{\mu}, \ m_{\widetilde{u}}^{\ p} \right] + \frac{1}{72} \ m_1 \ c_{\Upsilon} \ g_1^{\ 2} \ \overline{y_d}^{i2p} \ \left( c_{\Upsilon} \ a_d^{\ i1p} - s_{\Upsilon} \ \widetilde{\mu} \ y_d^{\ i1p} \right)
                                                                                                                                                                     \mathsf{LF_{2,1,1,0}} \left[ \, \mathsf{m_{1}} \,, \, \, \mathsf{m_{\tilde{d}}^{-p}} \,, \, \, \mathsf{m_{\tilde{q}}^{-i1}} \, \right] \, + \, \frac{1}{144} \, \, \mathsf{m_{1}} \, \, \mathsf{c_{\gamma}} \, \, \mathsf{g_{1}^{-2}} \, \, \, \mathsf{\overline{y_{d}}^{i2p}} \, \left( \, \mathsf{c_{\gamma}} \, \, \mathsf{a_{d}^{i1p}} \, - \, \mathsf{s_{\gamma}} \, \, \widetilde{\boldsymbol{\mu}} \, \, \mathsf{y_{d}^{i1p}} \right) \, \, \mathsf{LF_{2,2,1,-1}} \left[ \, \mathsf{m_{1}} \,, \, \, \mathsf{m_{\tilde{d}}^{p}} \,, \, \, \mathsf{m_{\tilde{q}}^{-i1}} \, \right] \, + \, \mathsf{m_{1}^{-p}} \, \, \, \mathsf{m_{2}^{-i1}} \, \, \, \mathsf{m_{2}^{-i1}} \, \, \mathsf{m_
                                                                                                                                                                                                   \mathsf{m_1} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \left( - \, \mathsf{c_{\gamma}} \; \mathsf{a_d}^{\mathsf{i1p}} + \, \mathsf{s_{\gamma}} \; \widetilde{\boldsymbol{\mu}} \; \mathsf{y_d}^{\mathsf{i1p}} \right) \; \mathsf{LF_{3,1,1,-1}} \big[ \, \mathsf{m_1} \, , \, \, \mathsf{m_{\bar{d}}}^{\mathsf{p}} \, , \, \, \mathsf{m_{\bar{q}}}^{\mathsf{i1}} \big] \; + \\
                                                                                                                                                        \frac{1}{144}\;\mathsf{m_1}\;\mathsf{c_{_{Y}}}\;\mathsf{g_{1}}^2\;\mathsf{y_{d}}^{\mathsf{ilp}}\;\left(\mathsf{c_{_{Y}}}\;\overline{\mathsf{a_{d}}}^{\mathsf{i2p}}-\mathsf{s_{_{Y}}}\;\widetilde{\mu}\;\overline{\mathsf{y_{d}}}^{\mathsf{i2p}}\right)\;\mathsf{LF_{2,2,1,-1}}\!\left[\mathsf{m_{1}}\;,\;\mathsf{m_{\tilde{d}}}^{\mathsf{p}}\;,\;\mathsf{m_{\tilde{q}}}^{\mathsf{i2}}\right]\;+
                                                                                                                                                        \frac{1}{4} \ g_{1}{}^{2} \ c_{\gamma}{}^{2} \ \overline{y_{d}}{}^{i2p} \ y_{d}{}^{i1p} \ \mathsf{LF}_{2,1,1,-1} \big[ \ \mathsf{m}_{1} \ , \ \mathsf{m}_{\bar{d}}{}^{p} \ , \ \widetilde{\mu} \, \big] - \frac{1}{6} \ \mathsf{m}_{1} \ s_{\gamma} \ \widetilde{\mu} \ c_{\gamma} \ g_{1}{}^{2} \ \overline{y_{d}}{}^{i2p} \ y_{d}{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \ \mathsf{m}_{1} \ , \ \mathsf{m}_{\bar{d}}{}^{p} \ , \ \widetilde{\mu} \, \big] + \frac{1}{6} \ \mathsf{m}_{1} \ \mathsf{m}_{2} \ \mathsf{m}_{2} \ \mathsf{m}_{2} \ \mathsf{m}_{3} \ \mathsf{m}_{2} \ \mathsf{m}_{3} \ \mathsf{m}_{3
                                                                                                                                               \frac{1}{6} \; \mathsf{g_1}^2 \; \mathsf{c_{\gamma}}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} \; \mathsf{LF_{3,1,1,-2}} \big[ \mathsf{m_1}, \; \mathsf{m_{\tilde{d}}}^\mathsf{p}, \; \widetilde{\mu} \, \big] \; + \\ \frac{1}{6} \; \mathsf{m_1} \; \mathsf{s_{\gamma}} \; \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} \; \mathsf{LF_{3,1,1,-1}} \big[ \mathsf{m_1}, \; \mathsf{m_{\tilde{d}}}^\mathsf{p}, \; \widetilde{\mu} \, \big] \; + \\ \frac{1}{6} \; \mathsf{m_1} \; \mathsf{s_{\gamma}} \; \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} \; \mathsf{LF_{3,1,1,-1}} \big[ \mathsf{m_1}, \; \mathsf{m_{\tilde{d}}}^\mathsf{p}, \; \widetilde{\mu} \, \big] \; + \\ \frac{1}{6} \; \mathsf{m_1} \; \mathsf{s_{\gamma}} \; \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} \; \mathsf{LF_{3,1,1,-1}} \big[ \mathsf{m_1}, \; \mathsf{m_{\tilde{d}}}^\mathsf{p}, \; \widetilde{\mu} \, \big] \; + \\ \frac{1}{6} \; \mathsf{m_1} \; \mathsf{s_{\gamma}} \; \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} \; \mathsf{LF_{3,1,1,-1}} \big[ \mathsf{m_1}, \; \mathsf{m_{\tilde{d}}}^\mathsf{p}, \; \widetilde{\mu} \, \big] \; + \\ \frac{1}{6} \; \mathsf{m_1} \; \mathsf{v_{\gamma}} \; \widetilde{\mathsf{y_d}} \; \mathsf{v_{\gamma}} \; \mathsf{v_{\gamma}}
                                                                                                                                               \frac{1}{144}\;\mathsf{m_1}\;\mathsf{c_{\scriptscriptstyle \gamma}}\;\mathsf{g_{\scriptscriptstyle 1}}^2\;\overline{\mathsf{y_d}}^{\mathsf{i2p}}\;\left(-\,\mathsf{c_{\scriptscriptstyle \gamma}}\;\mathsf{a_d}^{\mathsf{i1p}}\,+\,\mathsf{s_{\scriptscriptstyle \gamma}}\;\widetilde{\mu}\;\mathsf{y_d}^{\mathsf{i1p}}\right)\;\mathsf{LF_{2,2,1,-1}}\!\left[\,\mathsf{m_1}\,,\;\mathsf{m_{\bar{q}}}^{\mathsf{i1}}\,,\;\mathsf{m_{\bar{d}}}^{\mathsf{ip}}\,\right]\;+\;\mathsf{m_{\bar{q}}}^{\mathsf{i2p}}\;\mathsf{a_d}^{\mathsf{i3p}}
                                                                                                                                               \frac{1}{36} \; m_1 \; s_{\gamma} \; g_1{}^2 \; \overline{y_u}^{i2p} \; \left( s_{\gamma} \; a_u{}^{i1p} - \widetilde{\mu} \; c_{\gamma} \; y_u{}^{i1p} \right) \; LF_{2,1,1,0} \left[ m_1 \; , \; m_{\tilde{q}}{}^{i1} \; , \; m_{\tilde{u}}{}^{\tilde{p}} \right] \; + \\
                                                                                                                                               \mathsf{m_1} \; \mathsf{s_{\gamma}} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2p}} \; \left( - \, \mathsf{s_{\gamma}} \; \mathsf{a_u}^{\mathsf{i1p}} + \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{y_u}^{\mathsf{i1p}} \right) \; \mathsf{LF_{3,1,1,-1}} \big[ \, \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}} \, \big]
                                                                                                                                               \frac{1}{144} \; \mathsf{m_1} \; \mathsf{c_{Y}} \; \mathsf{g_1}^2 \; \mathsf{y_d}^{\mathsf{ilp}} \; \left( - \, \mathsf{c_{Y}} \; \overline{\mathsf{a_d}}^{\mathsf{i2p}} + \, \mathsf{s_{Y}} \; \widetilde{\mu} \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \right) \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i2}} \, , \; \mathsf{m_{\tilde{d}}}^{\mathsf{p}} \big] \; + \; \mathsf{m_{\tilde{q}}}^{\mathsf{i2p}} \; , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i2p}} \, , \; \mathsf{
                                                                                                                                               \frac{1}{36} \; \mathsf{m_1} \; \mathsf{s_{Y}} \; \mathsf{g_1}^2 \; \mathsf{y_u}^{\text{ilp}} \; \left( \mathsf{s_{Y}} \; \overline{\mathsf{a_u}}^{\text{i2p}} - \widetilde{\mu} \; \mathsf{c_{Y}} \; \overline{\mathsf{y_u}}^{\text{i2p}} \right) \; \mathsf{LF_{2,1,1,0}} \left[ \mathsf{m_1} \; , \; \mathsf{m_{\tilde{q}}}^{\text{i2}} \; , \; \mathsf{m_{\tilde{u}}}^{\text{p}} \right] \; + \; \mathsf{m_{\tilde{q}}}^{\text{i2p}} \; , \; \mathsf{m_{\tilde{q}}}^{\text{p}} 
                                                                                                                                                                                               \left[ \ m_1 \ s_{\gamma} \ g_1^{\ 2} \ y_u^{\ i1p} \ \left( - \ s_{\gamma} \ \overline{a_u}^{i2p} + \widetilde{\mu} \ c_{\gamma} \ \overline{y_u}^{i2p} \right) \ \mathsf{LF}_{2,2,1,-1} \left[ \ m_1 \ , \ m_{\tilde{q}}^{\ i2} \ , \ m_{\tilde{u}}^{\ p} \right] \ + \\ \left[ \ m_1 \ s_{\gamma} \ m_{\tilde{q}}^{\ i2} \ , \ m_{\tilde{q}}^{\ i2} \ , \ m_{\tilde{q}}^{\ i2} \right] \ + \\ \left[ \ m_1 \ s_{\gamma} \ m_{\tilde{q}}^{\ i2} \ , \\ \left[ \ m_1 \ s_{\gamma} \ m_{\tilde{q}}^{\ i2} \ , \\ \left[ \ m_1 \ s_{\gamma} \ m_{\tilde{q}}^{\ i2} \ , \\ \left[ \ m_1 \ s_{\gamma} \ m_{\tilde{q}}^{\ i2} \ , \ 
                                                                                                                                                                                                   \mathsf{m_1} \; \mathsf{s_{\gamma}} \; \mathsf{g_1}^2 \; \mathsf{y_u}^{\text{ilp}} \; \left( - \, \mathsf{s_{\gamma}} \; \overline{\mathsf{a_u}}^{\text{i2p}} + \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \overline{\mathsf{y_u}}^{\text{i2p}} \right) \; \mathsf{LF_{3,1,1,-1}} \left[ \, \mathsf{m_1} \, , \; \mathsf{m_{\bar{q}}}^{\text{i2}} \, , \; \mathsf{m_{\bar{u}}}^{\text{p}} \, \right] \; + \\
                                                                                                                                               36
                                                                                                                                               \frac{1}{144} \; {g_{1}}^{4} \; \left( {c_{\gamma}}^{2} - {s_{\gamma}}^{2} \right) \; \mathsf{LF}_{2,1,1,-1} \! \left[ \mathsf{m}_{1} \, , \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\; i2} \, , \, \tilde{\mu} \, \right] \; \delta_{i1i2} + \\
                                                                                                                                               \frac{1}{72} g_1^4 m_1^2 (c_{\gamma}^2 - s_{\gamma}^2) LF_{2,1,1,0}[m_1, m_{\tilde{q}}^{i2}, \tilde{\mu}] \delta_{i1i2} +
                                                                                                                                                                                               \left[ m_{1} \, s_{\gamma} \, g_{1}^{2} \, \overline{y_{u}}^{i2p} \, \left( s_{\gamma} \, a_{u}^{i1p} - \widetilde{\mu} \, c_{\gamma} \, y_{u}^{i1p} \right) \, \mathsf{LF}_{2,2,1,-1} \left[ m_{1}, \, m_{\widetilde{u}}^{\, p}, \, m_{\widetilde{q}}^{\, i1} \right] + \right] + \left[ m_{1} \, s_{\gamma} \, g_{1}^{2} \, \overline{y_{u}}^{i2p} \, \left( s_{\gamma} \, a_{u}^{\, i1p} - \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, i1p} \right) \, \mathsf{LF}_{2,2,1,-1} \left[ m_{1}, \, m_{\widetilde{u}}^{\, p}, \, m_{\widetilde{q}}^{\, i1} \right] + \right]
                                                                                                                                                        \mathsf{g_{1}}^{2} \; \mathsf{s_{\gamma}}^{2} \; \overline{\mathsf{y_{u}}}^{\mathsf{i2p}} \; \mathsf{y_{u}}^{\mathsf{i1p}} \; \mathsf{LF_{2,1,1,-1}} \big[ \, \mathsf{m_{1}} \, , \; \mathsf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \tilde{\mu} \, \big] \; + \; \frac{1}{3} \; \mathsf{m_{1}} \; \mathsf{s_{\gamma}} \; \tilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_{1}}^{2} \; \overline{\mathsf{y_{u}}}^{\mathsf{i2p}} \; \mathsf{y_{u}}^{\mathsf{i1p}} \; \mathsf{LF_{2,1,1,0}} \big[ \, \mathsf{m_{1}} \, , \; \mathsf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \tilde{\mu} \, \big] \; - \; \mathsf{m_{1}}^{\mathsf{p}} \; \mathsf{m_{2}}^{\mathsf{p}} \, , \; \tilde{\mu} \, \big] \; + \; \mathsf{m_{2}}^{\mathsf{p}} \; \mathsf{m_{2}}^{\mathsf{p}} \, , \; \tilde{\mu} \, \, , \; \tilde{\mu
                                                                                                                                                                                      {g_{1}}^{2} \; {s_{\gamma}}^{2} \; \overline{y_{u}}^{i\, 2p} \; y_{u}{}^{i\, 1p} \; \mathsf{LF}_{3,1,1,-2} \left[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{u}}{}^{p} \, , \; \widetilde{\mu} \, \right] \; - \; \frac{1}{3} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{i\, 2p} \; y_{u}{}^{i\, 1p} \; \mathsf{LF}_{3,1,1,-1} \left[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{u}}{}^{p} \, , \; \widetilde{\mu} \, \right] \; + \; \frac{1}{3} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \, c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{i\, 2p} \; y_{u}{}^{i\, 1p} \; \mathsf{LF}_{3,1,1,-1} \left[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{u}}{}^{p} \, , \; \widetilde{\mu} \, \right] \; + \; \frac{1}{3} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \, c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{i\, 2p} \; y_{u}{}^{i\, 1p} \; \mathsf{LF}_{3,1,1,-1} \left[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{u}}{}^{p} \, , \; \widetilde{\mu} \, \right] \; + \; \frac{1}{3} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \, c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{i\, 2p} \; y_{u}{}^{i\, 1p} \; \mathsf{LF}_{3,1,1,-1} \left[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{u}}{}^{p} \, , \; \widetilde{\mu} \, \right] \; + \; \frac{1}{3} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \, c_{\gamma} \; \widetilde{\mu} \, \widetilde{\mu} \, c_{\gamma} \; \widetilde{\mu} \, \widetilde{
                                                                                                                                               \frac{7}{48} g_1^2 c_\gamma^2 \overline{y_d}^{i2p} y_d^{i1p} LF_{2,2,1,-2}[m_1, \widetilde{\mu}, m_{\widetilde{d}}^{-p}] +
                                                                                                                                                            g_1^2 \left( c_{\gamma}^{\ 2} \, \overline{y_d}^{i2p} \, y_d^{i1p} + s_{\gamma}^{\ 2} \, \overline{y_u}^{i2p} \, y_u^{i1p} \right) \, \mathsf{LF}_{2,2,1,-2} \big[ \, \mathsf{m}_1, \, \widetilde{\mu}, \, \mathsf{m}_{\widetilde{\mathsf{q}}}^{i1} \big] + c_{\gamma}^{\ 2} \, \overline{y_u}^{i2p} \, y_u^{i1p} \, 
                                                                                                                                                                                                   \mathsf{m_1}\,\mathsf{s_{\scriptscriptstyle Y}}\,\widetilde{\mu}\,\mathsf{c_{\scriptscriptstyle Y}}\,\mathsf{g_1}^2\,\left(\overline{y_d}^{\texttt{i2p}}\,y_d^{\texttt{i1p}}+\overline{y_u}^{\texttt{i2p}}\,y_u^{\texttt{i1p}}\right)\,\mathsf{LF_{2,2,1,-1}}\big[\mathsf{m_1}\,,\,\widetilde{\mu}\,,\,\mathsf{m_{\tilde{q}}}^{\texttt{i1}}\big]\,+\,\mathsf{m_1}\,\mathsf{m_1}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2}\,\mathsf{m_2
                                                                                                                                               \frac{1}{144} \ g_{1}^{2} \ \left(3 \ c_{\gamma}^{2} \ \overline{y_{d}}^{i2p} \ y_{d}^{i1p} + 3 \ s_{\gamma}^{2} \ \overline{y_{u}}^{i2p} \ y_{u}^{i1p} + g_{1}^{2} \ \left(c_{\gamma}^{2} - s_{\gamma}^{2}\right) \ \delta_{i1i2}\right) \ LF_{2,2,1,-2} \left[m_{1}, \ \widetilde{\mu}, \ m_{\tilde{q}}^{i2}\right] + m_{\tilde{q}}^{2} \left(m_{1}, \ \widetilde{\mu}, \ m_{\tilde{q}}^{2}\right) + m_{\tilde{q}}^{2} \left(m_{1}, \ m_{\tilde{q}}^{2}\right) + m_{\tilde{q}}^{2} \left(m_{1}, \ m_{\tilde{q}}^{2}\right) + m_{\tilde{q}}^{2} \left(m_{1}, \
                                                                                                                                               \frac{1}{144} \ m_1 \ g_1^{\ 2} \ \left( 3 \ s_{\gamma} \ \widetilde{\mu} \ c_{\gamma} \ \left( \overline{y_d}^{i2p} \ y_d^{i1p} + \overline{y_u}^{i2p} \ y_u^{i1p} \right) \ + \ m_1 \ g_1^{\ 2} \ \left( - \, c_{\gamma}^{\ 2} + \, s_{\gamma}^{\ 2} \right) \ \delta_{i1i2} \right)
                                                                                                                                                                         \mathsf{LF_{2,2,1,-1}}\big[\,\mathsf{m_{1}}\,,\,\tilde{\mu}\,,\,\mathsf{m_{\tilde{q}}}^{\,i\,2}\,\big]\,-\,\tfrac{11}{48}\,\,\mathsf{g_{1}}^{2}\,\,\mathsf{s_{\gamma}}^{2}\,\,\overline{\mathsf{y_{u}}}^{i\,2p}\,\,\mathsf{y_{u}}^{\,i\,1p}\,\,\mathsf{LF_{2,2,1,-2}}\big[\,\mathsf{m_{1}}\,,\,\tilde{\mu}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,\big]\,-\,\frac{11}{48}\,\,\mathsf{g_{1}}^{2}\,\,\mathsf{s_{\gamma}}^{2}\,\,\overline{\mathsf{y_{u}}}^{i\,2p}\,\,\mathsf{y_{u}}^{\,i\,2p}\,\,\mathsf{LF_{2,2,1,-2}}\big[\,\mathsf{m_{1}}\,,\,\tilde{\mu}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,\big]\,-\,\frac{11}{48}\,\,\mathsf{g_{1}}^{2}\,\,\mathsf{s_{\gamma}}^{2}\,\,\overline{\mathsf{y_{u}}}^{i\,2p}\,\,\mathsf{y_{u}}^{\,i\,2p}\,\,\mathsf{LF_{2,2,1,-2}}\big[\,\mathsf{m_{1}}\,,\,\tilde{\mu}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,\big]\,-\,\frac{11}{48}\,\,\mathsf{g_{1}}^{2}\,\,\mathsf{s_{\gamma}}^{2}\,\,\overline{\mathsf{y_{u}}}^{\,2p}\,\,\mathsf{s_{\gamma}}^{2p}\,\,\mathsf{LF_{2,2,2,1,-2}}\big[\,\mathsf{m_{1}}\,,\,\tilde{\mu}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,\big]\,\,\mathsf{LF_{2,2,2,1,-2}}\big[\,\mathsf{m_{1}}\,,\,\tilde{\mu}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m_{\tilde{u}}}^{p}\,,\,\mathsf{m
                                                                                                                                               \frac{1}{48}~\widetilde{\mu}~c_{\gamma}~g_{1}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~i1p}~(14~m_{1}~s_{\gamma}+3~\widetilde{\mu}~c_{\gamma})~\text{LF}_{2,2,1,-1}\big[m_{1},~\widetilde{\mu},~m_{\tilde{u}}^{~p}\big]~+
                                                                                                                                               \frac{3}{16}~g_2^4~\left(c_\gamma^{~2}-s_\gamma^{~2}\right)~\mathsf{LF_{2,1,1,-1}}\!\left[\mathsf{m_2}\,,\,\mathsf{m_{\tilde{q}}}^{i2},\,\tilde{\mu}\right]~\delta_{i1i2} +
                                                                                                                                                                                  g_{2}^{\ 4} \, m_{2}^{\ 2} \, \left( c_{\gamma}^{\ 2} - s_{\gamma}^{\ 2} \right) \, LF_{2,1,1,0} \left[ \, m_{2} \, , \, m_{\tilde{q}}^{\ i\, 2} \, , \, \tilde{\mu} \, \right] \, \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{3}{16} \, g_{2}^{\ 2} \, c_{\gamma}^{\ 2} \, \overline{y_{d}}^{\dot{1}2p} \, y_{d}^{\ i\, 1p} \, LF_{2,2,1,-2} \left[ \, m_{2} \, , \, \tilde{\mu}_{,} \, m_{\tilde{d}}^{-p} \, \right] + \frac{3}{16} \, g_{2}^{\ 2} \, c_{\gamma}^{\ 2} \, \overline{y_{d}}^{\dot{1}2p} \, y_{d}^{\ i\, 1p} \, LF_{2,2,1,-2} \left[ \, m_{2} \, , \, \tilde{\mu}_{,} \, m_{\tilde{d}}^{-p} \, \right] + \frac{3}{16} \, g_{2}^{\ 2} \, c_{\gamma}^{\ 2} \, \overline{y_{d}}^{\dot{1}2p} \, y_{d}^{\ i\, 1p} \, LF_{2,2,1,-2} \left[ \, m_{2} \, , \, \tilde{\mu}_{,} \, m_{\tilde{d}}^{-p} \, \right] + \frac{3}{16} \, g_{2}^{\ 2} \, c_{\gamma}^{\ 2} \, \overline{y_{d}}^{\dot{1}2p} \, y_{d}^{\ i\, 1p} \, LF_{2,2,1,-2} \left[ \, m_{2} \, , \, \tilde{\mu}_{,} \, m_{\tilde{d}}^{-p} \, \right] + \frac{3}{16} \, g_{2}^{\ 2} \, c_{\gamma}^{\ 2} \, \overline{y_{d}}^{\dot{1}2p} \, y_{d}^{\ i\, 1p} \, LF_{2,2,1,-2} \left[ \, m_{2} \, , \, \tilde{\mu}_{,} \, m_{\tilde{d}}^{-p} \, \right] + \frac{3}{16} \, g_{2}^{\ 2} \, c_{\gamma}^{\ 2} \, \overline{y_{d}}^{\dot{1}2p} \, y_{d}^{\ i\, 1p} \, LF_{2,2,1,-2} \left[ \, m_{2} \, , \, \tilde{\mu}_{,} \, m_{\tilde{d}}^{-p} \, \right] + \frac{3}{16} \, g_{2}^{\ 2} \, c_{\gamma}^{\ 2} \, \overline{y_{d}}^{\dot{1}2p} \, y_{d}^{\ i\, 1p} \, LF_{2,2,1,-2} \left[ \, m_{2} \, , \, \tilde{\mu}_{,} \, m_{\tilde{d}}^{-p} \, \right] + \frac{3}{16} \, g_{2}^{\ 2} \, c_{\gamma}^{\ 2} \, \overline{y_{d}}^{\dot{1}2p} \, y_{d}^{\ i\, 1p} \, F_{2,2,2,1,-2} \left[ \, m_{2} \, , \, \tilde{\mu}_{,} \, m_{\tilde{d}}^{\dot{1}2p} \, y_{d}^{\ i\, 1p} \, y_
                                                                                                                                                                                                   \mathsf{s}_{\gamma}\,\tilde{\mu}\;\mathsf{g_2}^2\;\overline{\mathsf{y_d}}^{\mathsf{i2p}}\;\mathsf{y_d}^{\mathsf{i1p}}\;(2\;\mathsf{m_2}\;\mathsf{c}_{\gamma}\,+\,\mathsf{s}_{\gamma}\,\tilde{\mu})\;\mathsf{LF}_{\mathsf{2,2,1,-1}}\big[\,\mathsf{m_2}\,,\,\tilde{\mu}\,,\,\mathsf{m_d^{-p}}\,\big]\,\,+\,
                                                                                                                                               \frac{3}{16} \ g_{2}^{2} \ \left(c_{\gamma}^{2} \ \overline{y_{d}}^{i2p} \ y_{d}^{i1p} - s_{\gamma}^{2} \ \overline{y_{u}}^{i2p} \ y_{u}^{i1p}\right) \ \mathsf{LF}_{2,2,1,-2}\big[\mathsf{m}_{2}\,,\,\widetilde{\mu}\,,\,\mathsf{m}_{\tilde{q}}^{i1}\big] \ +
                                                                                                                                                                                                       \text{m}_{2} \text{ s}_{\gamma} \, \widetilde{\mu} \text{ c}_{\gamma} \text{ g}_{2}^{2} \, \left( \overline{y_{d}}^{\text{i2p}} \, y_{d}^{\text{i1p}} - \overline{y_{u}}^{\text{i2p}} \, y_{u}^{\text{i1p}} \right) \, \text{LF}_{2,2,1,-1} \big[ \text{m}_{2} \, , \, \widetilde{\mu} \, , \, \text{m}_{\tilde{q}}^{\text{i1}} \big] \, + \, \text{m}_{\tilde{q}}^{\text{i1}} \, + \, \text{m}_{\tilde{q}}^{\text{i1
                                                                                                                                               \frac{3}{16} \ g_{2}^{2} \ \left(c_{\gamma}^{2} \ \overline{y_{d}}^{i2p} \ y_{d}^{i1p} - s_{\gamma}^{2} \ \overline{y_{u}}^{i2p} \ y_{u}^{i1p} + g_{2}^{2} \ \left(c_{\gamma}^{2} - s_{\gamma}^{2}\right) \ \delta_{i1i2}\right) \ \mathsf{LF}_{2,2,1,-2} \left[\mathsf{m}_{2} \, , \ \widetilde{\mu} \, , \ \mathsf{m}_{\tilde{q}}^{i2}\right] + c_{2}^{2} \ \mathsf{m}_{2}^{2} \ \mathsf{
                                                                                                                                           \frac{3}{16} \ \text{m}_2 \ \text{g}_2^{\ 2} \ \left( \text{s}_{\text{Y}} \ \tilde{\mu} \ \text{c}_{\text{Y}} \ \left( \overline{\text{y}_{\text{d}}}^{\text{i}2p} \ \text{y}_{\text{d}}^{\text{i}1p} - \overline{\text{y}_{\text{u}}}^{\text{i}2p} \ \text{y}_{\text{u}}^{\text{i}1p} \right) \right. \\ \left. + \ \text{m}_2 \ \text{g}_2^{\ 2} \ \left( - \ \text{c}_{\text{Y}}^{\ 2} + \ \text{s}_{\text{Y}}^{\ 2} \right) \ \delta_{\text{i}1i2} \right) \ \text{LF}_{2,2,1,-1} \left[ \text{m}_2 \ , \ \tilde{\mu} \ , \ \text{m}_{\tilde{q}}^{\text{i}2} \right] - \left( - \ \text{m}_{\tilde{q}}^{\text{i}2p} + \ \text{m}_{\tilde{q}}^{\text{i}2p} \right) \right] \ \text{m}_{\tilde{q}}^{\text{i}2p} \left[ - \ \text{m}_{\tilde{q}}^{\text{i}2p} + \ \text{m}_{\tilde{q}}^{\text{i}2p} + \ \text{m}_{\tilde{q}}^{\text{i}2p} \right] \\ \left. + \ \text{m}_{\tilde{q}}^{\text{i}2p} + 
                                                                                                                                               \frac{3}{16} g_2^2 s_{\gamma}^2 \overline{y_u}^{i2p} y_u^{i1p} LF_{2,2,1,-2}[m_2, \tilde{\mu}, m_{\bar{u}}^{-p}]
                                                                                                                                               \frac{3}{16} \; \widetilde{\mu} \; \mathbf{c_{\gamma}} \; \mathbf{g_2}^2 \; \overline{\mathbf{y_u}}^{\mathsf{i2p}} \; \mathbf{y_u}^{\mathsf{i1p}} \; \left( 2 \; \mathbf{m_2} \; \mathbf{s_{\gamma}} + \widetilde{\mu} \; \mathbf{c_{\gamma}} \right) \; \mathsf{LF_{2,2,1,-1}} \left[ \, \mathbf{m_2} \, , \; \widetilde{\mu} \, , \; \mathbf{m_u^{-p}} \, \right] \; + \\
                                                                                                                                                                                  m_3 c_{\gamma} g_3^2 \overline{y_d}^{i2p} \left(-c_{\gamma} a_d^{i1p} + s_{\gamma} \widetilde{\mu} y_d^{i1p}\right) LF_{2,1,1,0}[m_3, m_{\tilde{d}}^p, m_{\tilde{q}}^{i1}] +
                                                                                                                                                                                  \textbf{m}_{3} \; \textbf{c}_{\gamma} \; \textbf{g}_{3}^{\; 2} \; \overline{\textbf{y}_{d}}^{\text{i2p}} \; \left( - \, \textbf{c}_{\gamma} \; \textbf{a}_{d}^{\; \text{i1p}} + \, \textbf{s}_{\gamma} \; \widetilde{\boldsymbol{\mu}} \; \textbf{y}_{d}^{\; \text{i1p}} \right) \; \textbf{LF}_{\textbf{2,2,1,-1}} \big[ \, \textbf{m}_{3} \, , \; \textbf{m}_{\tilde{d}}^{\; p} \, , \; \textbf{m}_{\tilde{q}}^{\; \text{i1}} \big] \; + \\
                                                                                                                                               \frac{1}{3} \, \, m_3 \, \, c_{\Upsilon} \, g_3^{\, 2} \, \, \overline{y_d}^{\, 12p} \, \left( \, c_{\Upsilon} \, \, a_d^{\, 11p} \, - \, s_{\Upsilon} \, \widetilde{\mu} \, \, y_d^{\, 11p} \right) \, \, LF_{3,1,1,-1} \big[ \, m_3 \, , \, \, m_{\tilde{d}}^{\, \, p} \, , \, \, m_{\tilde{q}}^{\, \, p} \, , \, \, m_{\tilde{q}}^{
                                                                                                                                                                                  \text{m}_{3}\;c_{\gamma}\;g_{3}^{\;2}\;y_{d}^{\;i1p}\;\left(-\,c_{\gamma}\;\overline{a_{d}}^{\;i2p}\,+\,s_{\gamma}\;\widetilde{\mu}\;\overline{y_{d}}^{\;i2p}\right)\;LF_{2,\text{1,1,0}}\!\left[\,\text{m}_{3}\,,\;\text{m}_{\tilde{d}}^{\;p}\,,\;\text{m}_{\tilde{q}}^{\;i2}\,\right]\,+\,c_{1}^{\;2}\left[\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3}^{\;2}\,\sigma_{3
                                                                                                                                               \frac{\mathsf{J}}{\mathsf{E}}\,\,\mathsf{m}_3\,\,\mathsf{c}_{\scriptscriptstyle Y}\,\,\mathsf{g_3}^2\,\,\mathsf{y_d}^{\,\mathsf{ilp}}\,\,\big(-\,\mathsf{c}_{\scriptscriptstyle Y}\,\,\overline{\mathsf{a_d}}^{\,\mathsf{i2p}}\,+\,\mathsf{s}_{\scriptscriptstyle Y}\,\,\widetilde{\mu}\,\,\overline{\mathsf{y_d}}^{\,\mathsf{i2p}}\big)\,\,\mathsf{LF}_{\mathsf{2,2,1,-1}}\big[\,\mathsf{m}_3\,,\,\,\mathsf{m_{\bar{d}}}^{\,\mathsf{p}}\,,\,\,\mathsf{m_{\bar{q}}}^{\,\mathsf{i2}}\big]\,\,+\,\,\mathsf{m_{\bar{d}}}^{\,\mathsf{i2p}}\,\,\mathsf{m_{\bar{d}}}^{\,\mathsf{i2p}}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\mathsf{i2p}}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\mathsf{i2p}}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\mathsf{i2p}}\,\big]
                                                                                                                                               \mathsf{m_3}\; \mathsf{c_{Y}}\; \mathsf{g_3}^2\; \overline{\mathsf{y_d}}^{\mathsf{i2p}}\; \left(\mathsf{c_{Y}}\; \mathsf{a_d}^{\mathsf{i1p}} - \mathsf{s_{Y}}\; \widetilde{\mu}\; \mathsf{y_d}^{\mathsf{i1p}}\right)\; \mathsf{LF_{2,2,1,-1}}\big[\mathsf{m_3}\;,\; \mathsf{m_{\bar{q}}}^{\mathsf{i1}}
                                                                                                                                                                                  \text{m}_{3} \text{ s}_{\gamma} \text{ g}_{3}^{2} \, \overline{y_{u}}^{\text{i2p}} \, \left(\text{s}_{\gamma} \text{ a}_{u}^{\text{ i1p}} - \widetilde{\mu} \text{ c}_{\gamma} \text{ y}_{u}^{\text{ i1p}}\right) \text{ LF}_{2,1,1,0} \big[\text{m}_{3} \text{ , m}_{q}^{\text{ -i1}} \text{ , m}_{\tilde{u}}^{\text{ }p}\big] \, + \, \\
                                                                                                                                                                                      \text{m}_{3} \text{ s}_{\gamma} \text{ g}_{3}^{2} \, \overline{y_{u}}^{\text{i2p}} \, \left( - \, \text{s}_{\gamma} \, a_{u}^{\,\, \text{i1p}} + \widetilde{\mu} \, \, \text{c}_{\gamma} \, y_{u}^{\,\, \text{i1p}} \right) \, \text{LF}_{\text{2,2,1,-1}} \big[ \, \text{m}_{3} \, , \, \, \text{m}_{\tilde{q}}^{\,\, \text{i1}} \, , \, \, \text{m}_{\tilde{u}}^{\,\, \text{p}} \, \big] \, + \, \widetilde{\mu} \, \, \text{c}_{\gamma} \, y_{u}^{\,\, \text{i1p}} \, , \, \, \text{c}_{\gamma} \, y_{u}^
                                                                                                                                                                                      \text{m}_{3} \text{ s}_{\gamma} \text{ g}_{3}^{2} \, \overline{y_{u}}^{\text{i2p}} \, \left( - \, \text{s}_{\gamma} \, \, \text{a}_{u}^{\,\, \text{i1p}} + \widetilde{\mu} \, \, \text{c}_{\gamma} \, \, \text{y}_{u}^{\,\, \text{i1p}} \right) \, \text{LF}_{3,1,1,-1} \big[ \, \text{m}_{3} \, , \, \, \text{m}_{\bar{q}}^{\,\, \text{i1}} \, , \, \, \text{m}_{\bar{u}}^{\,\, \text{p}} \, \big] \, + \, \widetilde{\mu} \, \, \text{c}_{\gamma} \, \, \text{y}_{u}^{\,\, \text{i1p}} \, , \, \, \text{LF}_{3,1,1,-1} \big[ \, \text{m}_{3} \, , \, \, \text{m}_{\bar{q}}^{\,\, \text{i1}} \, , \, \, \text{m}_{\bar{u}}^{\,\, \text{p}} \, \big] \, + \, \widetilde{\mu} \, \, \text{c}_{\gamma} \, \, \, \text{c}_{\gamma} \, \, \text{c}_
                                                                                                                                                                                  \text{m}_{3}\;c_{\gamma}\;g_{3}^{\;2}\;y_{d}^{\;i1p}\;\left(c_{\gamma}\;\overline{a_{d}}^{i2p}-s_{\gamma}\;\widetilde{\mu}\;\overline{y_{d}}^{i2p}\right)\;LF_{2,2,1,-1}\!\left[\text{m}_{3}\;,\;\text{m}_{\tilde{q}}^{\;i2}\;,\;\text{m}_{\tilde{d}}^{-p}\right]\;+
                                                                                                                                                                                      \text{m}_{3} \text{ s}_{\gamma} \text{ g}_{3}^{2} \text{ y}_{u}^{\text{ ilp }} \left(\text{s}_{\gamma} \overline{\text{a}_{u}}^{\text{ i2p }} - \widetilde{\mu} \text{ c}_{\gamma} \overline{\text{y}_{u}}^{\text{ i2p }}\right) \text{ LF}_{2,1,1,0} \big[\text{m}_{3} \text{, } \text{m}_{\bar{q}}^{\text{ i2}} \text{, } \text{m}_{\bar{u}}^{\text{ ip }}\big] \text{ +}
                                                                                                                                                                                  \text{m}_{3} \text{ s}_{\gamma} \text{ g}_{3}^{\text{ 2}} \text{ y}_{u}^{\text{ ilp }} \left( - \text{ s}_{\gamma} \, \overline{\text{a}_{u}}^{\text{ i2p}} + \widetilde{\mu} \, \text{ c}_{\gamma} \, \overline{\text{y}_{u}}^{\text{ i2p}} \right) \text{ LF}_{\text{2,2,1,-1}} \big[ \text{m}_{3} \, , \, \text{m}_{\tilde{q}}^{\text{ i2}} \, , \, \text{m}_{\tilde{u}}^{\text{ r}}^{\text{ p}} \big] \, + \, \widetilde{\mu} \, \text{ c}_{\gamma} \, \overline{\text{y}_{u}}^{\text{ i2p}} + \widetilde{\mu} \, \overline{\text{c}_{\gamma}}^{\text{ i2p}} + \widetilde{\mu} \, \overline{\text{c}_
                                                                                                                                                                                      \text{m}_{3} \text{ s}_{\gamma} \text{ g}_{3}^{2} \text{ y}_{u}^{\text{ ilp }} \left( - \text{ s}_{\gamma} \text{ } \overline{a_{u}}^{\text{ i}2p} + \widetilde{\mu} \text{ c}_{\gamma} \text{ } \overline{y_{u}}^{\text{ i}2p} \right) \text{ LF}_{3,1,1,-1} \big[ \text{m}_{3} \text{ , } \text{m}_{\tilde{q}}^{\text{ i}2} \text{ , } \text{m}_{\tilde{u}}^{\text{ i}p} \big] \text{ } + \\
                                                                                                                                                                                      \text{m}_{3} \; \text{s}_{\gamma} \; \text{g}_{3}^{\; 2} \; \overline{\text{y}_{u}}^{\text{i2p}} \; \left( \, \text{s}_{\gamma} \; \text{a}_{u}^{\; \text{i1p}} - \widetilde{\mu} \; \text{c}_{\gamma} \; \text{y}_{u}^{\; \text{i1p}} \right) \; \text{LF}_{2,2,1,-1} \big[ \, \text{m}_{3} \, , \; \text{m}_{\tilde{u}}^{\; p} \, , \; \text{m}_{\tilde{q}}^{\; \text{i1}} \big] \; + \\
                                                                                                                                                                                      \text{m}_{3} \text{ s}_{\gamma} \text{ g}_{3}^{\text{ 2}} \text{ y}_{u}^{\text{ ilp }} \left(\text{s}_{\gamma} \text{ } \overline{\text{a}_{u}}^{\text{ i2p }} - \widetilde{\mu} \text{ c}_{\gamma} \text{ } \overline{\text{y}_{u}}^{\text{ i2p }}\right) \text{ LF}_{2,2,1,-1} \big[\text{m}_{3} \text{, m}_{\tilde{u}}^{\text{ p}} \text{, m}_{\tilde{q}}^{\text{ p}} \text{, m}_{\tilde{q}}^{\text{ p}} \right]
                                                                                                                                               \frac{1}{16} \; \mathbf{S}_{\mathrm{Y}} \, \tilde{\boldsymbol{\mu}} \; \mathbf{y_d}^{\mathrm{ilr}} \; \overline{\mathbf{y_u}^{\mathrm{i2s}}} \; \mathbf{y_u}^{\mathrm{ps}} \; \left( \mathbf{c}_{\mathrm{Y}} \; \overline{\mathbf{a_d}}^{\mathrm{pr}} - \mathbf{s}_{\mathrm{Y}} \, \tilde{\boldsymbol{\mu}} \; \overline{\mathbf{y_d}}^{\mathrm{pr}} \right) \; \mathsf{LF_{2,2,1,-1}} \left[ \boldsymbol{m_{\bar{d}}^{\mathrm{r}}}, \; \tilde{\boldsymbol{\mu}}, \; \boldsymbol{m_{\bar{q}}^{\mathrm{p}}} \right] \; + \; \boldsymbol{m_{\bar{q}}^{\mathrm{pr}}} \; \boldsymbol{m_{\bar{q}}^{\mathrm{pr}}} \; \boldsymbol{m_{\bar{q}}^{\mathrm{pr}}} \; \boldsymbol{m_{\bar{q}}^{\mathrm{pr}}} \; \boldsymbol{m_{\bar{q}}^{\mathrm{pr}}} \right] \; + \; \boldsymbol{m_{\bar{q}}^{\mathrm{pr}}} \;
                                                                                                                                               \frac{1}{16} \; \mathsf{S}_{\scriptscriptstyle Y} \, \tilde{\mu} \; \mathsf{y_d}^{\mathsf{ilr}} \; \overline{\mathsf{y_u}}^{\mathsf{i2S}} \; \mathsf{y_u}^{\mathsf{pS}} \; \left( - \, \mathsf{c}_{\scriptscriptstyle Y} \; \overline{\mathsf{a_d}}^{\mathsf{pr}} + \, \mathsf{s}_{\scriptscriptstyle Y} \, \tilde{\mu} \; \overline{\mathsf{y_d}}^{\mathsf{pr}} \right) \; \mathsf{LF_{2,2,1,-1}} \left[ \, \mathsf{m_{\bar{q}}}^{\, \mathsf{p}} \, , \; \tilde{\mu} \, , \; \mathsf{m_{\bar{d}}}^{\mathsf{r}} \, \right] \; + \; \mathsf{m_{\bar{d}}}^{\mathsf{pr}} \; .
                                                                                                                                               \frac{1}{16} \, \mathsf{s}_{\scriptscriptstyle Y} \, \widetilde{\mu} \, \mathsf{c}_{\scriptscriptstyle Y} \, \overline{\mathsf{y}_{\mathsf{d}}}^{\mathsf{i2s}} \, \mathsf{y}_{\mathsf{d}}^{\,\mathsf{ps}} \, \mathsf{y}_{\mathsf{u}}^{\,\mathsf{i1r}} \, \overline{\mathsf{a}_{\mathsf{u}}}^{\mathsf{pr}} \, \mathsf{LF}_{\mathsf{2,2,1,-1}} \big[ \, \mathsf{m}_{\bar{\mathsf{q}}}^{\,\mathsf{p}} \, , \, \, \widetilde{\mu} \, , \, \, \mathsf{m}_{\bar{\mathsf{u}}}^{\,\mathsf{r}} \, \big] \, + \, \\
                                                                                                                                               \frac{1}{16} \; \widetilde{\mu} \; \mathbf{c_{\gamma}} \; \overline{\mathbf{y_d}}^{\mathsf{pr}} \; \mathbf{y_d}^{\mathsf{ilr}} \; \overline{\mathbf{y_u}}^{\mathsf{i2s}} \; \left( \mathbf{s_{\gamma}} \; \mathbf{a_u}^{\mathsf{ps}} - \widetilde{\mu} \; \mathbf{c_{\gamma}} \; \mathbf{y_u}^{\mathsf{ps}} \right) \; \mathsf{LF_{2,2,1,-1}} \left[ \mathbf{m_{\tilde{q}}}^{\mathsf{p}}, \; \widetilde{\mu}, \; \mathbf{m_{\tilde{u}}}^{\mathsf{s}} \right] \; + \; \mathbf{m_{\tilde{u}}}^{\mathsf{ps}} \; \mathbf{m_{
                                                                                                                                                                                                   s_{\gamma}\;\widetilde{\mu}\;\overline{y_{d}}^{12p}\;\overline{y_{u}}^{rs}\;y_{u}^{\text{ils}}\;\left(-\,c_{\gamma}\;a_{d}^{\,rp}+s_{\gamma}\;\widetilde{\mu}\;y_{d}^{\,rp}\right)\;\mathsf{LF}_{2,2,1,-1}\!\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1,-1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1}\left[\mathsf{m}_{\bar{q}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1}\left[\mathsf{m}_{\bar{d}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,1}\left[\mathsf{m}_{\bar{d}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2,2}\left[\mathsf{m}_{\bar{d}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2}\left[\mathsf{m}_{\bar{d}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2}\left[\mathsf{m}_{\bar{d}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2}\left[\mathsf{m}_{\bar{d}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2}\left[\mathsf{m}_{\bar{d}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2}\left[\mathsf{m}_{\bar{d}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2}\left[\mathsf{m}_{\bar{d}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2}\left[\mathsf{m}_{\bar{d}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2}\left[\mathsf{m}_{\bar{d}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2}\left[\mathsf{m}_{\bar{d}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2}\left[\mathsf{m}_{\bar{d}}^{\,\,r}\,,\;\mathsf{m}_{\bar{d}}^{\,\,p}\right]\;-\;\mathsf{LF}_{2,2}\left[\mathsf{m}_{\bar{d}}
                                                                                                                                               \frac{1}{16} \; \tilde{\mu}^2 \; c_{\gamma}^{\; 2} \; \overline{y_d}^{i2p} \; y_d^{\; rp} \; \overline{y_u}^{\; rs} \; y_u^{\; i1s} \; \mathsf{LF}_{2,2,1,-1} \big[ \, \mathsf{m}_{\tilde{q}}^{\; r} \, , \; \tilde{\mu} \, , \; \mathsf{m}_{\tilde{u}}^{\; s} \, \big] \; - \;
                                                                                                                                                                                                       s_{\gamma}\,\widetilde{\mu}\;c_{\gamma}\,\overline{y_{d}}^{\text{i2s}}\,y_{d}^{\,\text{ps}}\,y_{u}^{\,\text{i1r}}\,\overline{a_{u}}^{\text{pr}}\,\mathsf{LF}_{2,2,1,-1}\big[\mathsf{m}_{\tilde{u}}^{\,\text{r}}\,,\,\widetilde{\mu}\,,\,\mathsf{m}_{\tilde{q}}^{\,\text{p}}\big]\;+
                                                                                                                                               \frac{1}{16} \; \widetilde{\mu} \; c_{\Upsilon} \, \overline{y_d}^{\text{pr}} \; y_d^{\text{ilr}} \, \overline{y_u}^{\text{i2s}} \; \left( - \, s_{\Upsilon} \; a_u^{\, \text{ps}} + \widetilde{\mu} \; c_{\Upsilon} \; y_u^{\, \text{ps}} \right) \; \mathsf{LF}_{2,2,1,-1} \big[ \, \mathsf{m}_{\bar{u}}^{\, \text{s}} \, , \; \widetilde{\mu} \, , \; \mathsf{m}_{\bar{q}}^{\, \text{p}} \, \big] \; + \; \mathsf{m}_{\bar{q}}^{\, \text{pr}} \, , \; \mathsf{m}_{\bar{q}}^{\, \text{pr}} \, , \; \mathsf{m}_{\bar{q}}^{\, \text{pr}} \, \big] \; + \; \mathsf{m}_{\bar{q}}^{\, \text{pr}} \, , \; \mathsf{m}_{\bar{q}}^{\,
                                                                                                                                               \frac{1}{16} \; \tilde{\mu}^2 \; c_{\gamma}^2 \; \overline{y_d}^{i2p} \; y_d^{rp} \; \overline{y_u}^{rs} \; y_u^{i1s} \; LF_{2,2,1,-1} \big[ m_{\bar{u}}^{\; s}, \; \tilde{\mu}, \; m_{\bar{q}}^{\; r} \big] \; + \\
                                                                                                                                               \frac{1}{16} \ g_1^2 \ c_{\gamma}^2 \ \overline{y_d}^{i2p} \ y_d^{i1p} \ \mathsf{LF}_{2,1,1,-1} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,p} \big] - \frac{1}{8} \ g_1^2 \ s_{\gamma}^2 \ \widetilde{\mu}^2 \ \overline{y_d}^{i2p} \ y_d^{\,i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,p} \big] - \frac{1}{8} \ g_1^2 \ s_{\gamma}^2 \ \widetilde{\mu}^2 \ \overline{y_d}^{\,i2p} \ y_d^{\,i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,p} \big] - \frac{1}{8} \ g_1^2 \ s_{\gamma}^2 \ \widetilde{\mu}^2 \ \overline{y_d}^{\,i2p} \ y_d^{\,i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,p} \big] - \frac{1}{8} \ g_1^2 \ s_{\gamma}^2 \ \widetilde{\mu}^2 \ \overline{y_d}^{\,i2p} \ y_d^{\,i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,p} \big] - \frac{1}{8} \ g_1^2 \ s_{\gamma}^2 \ \widetilde{\mu}^2 \ \overline{y_d}^{\,i2p} \ y_d^{\,i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,p} \big] - \frac{1}{8} \ g_1^2 \ s_{\gamma}^2 \ \widetilde{\mu}^2 \ \overline{y_d}^{\,i2p} \ y_d^{\,i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,p} \big] - \frac{1}{8} \ g_1^2 \ s_{\gamma}^2 \ \widetilde{\mu}^2 \ \overline{y_d}^{\,i2p} \ y_d^{\,i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,p} \big] - \frac{1}{8} \ g_1^2 \ s_{\gamma}^2 \ \widetilde{\mu}^2 \ \overline{y_d}^{\,i2p} \ y_d^{\,i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,p} \big] - \frac{1}{8} \ g_1^2 \ s_{\gamma}^2 \ \widetilde{\mu}^2 \ \overline{y_d}^{\,i2p} \ y_d^{\,i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,p} \big] - \frac{1}{8} \ g_1^2 \ s_{\gamma}^2 \ \widetilde{\mu}^2 \ \overline{y_d}^{\,i2p} \ y_d^{\,i2p} \ y_d^{\,i2p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_2 \,, \, \mathsf{m}_2 \,, \, \mathsf{m}_2 \,, \, \mathsf{m}_3 \,
                                                                                                                                               \frac{1}{16} \ g_1^2 \ \left( c_{\gamma}^2 \ \overline{y_d}^{i2p} \ y_d^{i1p} + s_{\gamma}^2 \ \overline{y_u}^{i2p} \ y_u^{i1p} \right) \ \mathsf{LF_{2,1,1,-1}} \big[ \widetilde{\mu} \,, \, \mathsf{m_1} \,, \, \mathsf{m_{\tilde{q}}}^{i1} \big] \ -
                                                                                                                                               \frac{1}{24} g_1^2 \left( c_{\gamma}^2 \overline{y_d}^{i2p} y_d^{i1p} + s_{\gamma}^2 \overline{y_u}^{i2p} y_u^{i1p} \right) LF_{3,1,1,-2} \left[ \widetilde{\mu}, m_1, m_{\widetilde{q}}^{i1} \right] +
                                                                                                                                               \frac{1}{24} \,\, \mathbf{m_1} \,\, \mathbf{s_{\scriptscriptstyle Y}} \, \widetilde{\boldsymbol{\mu}} \,\, \mathbf{c_{\scriptscriptstyle Y}} \,\, \mathbf{g_1}^2 \,\, \left( \overline{\mathbf{y_d}}^{\mathsf{i2p}} \,\, \mathbf{y_d}^{\mathsf{i1p}} + \overline{\mathbf{y_u}}^{\mathsf{i2p}} \,\, \mathbf{y_u}^{\mathsf{i1p}} \right) \,\, \mathsf{LF_{3,1,1,-1}} \big[ \, \widetilde{\boldsymbol{\mu}} \,, \,\, \mathbf{m_1} \,, \,\, \mathbf{m_{\tilde{q}}}^{\mathsf{i1}} \big] \,\, - \,\, \mathbf{m_{\tilde{q}}}^{\mathsf{i1}} \,\, \mathbf{m_{\tilde{q}}}
                                                                                                                                               \frac{1}{16} g_{1}^{2} \left( c_{\gamma}^{2} \overline{y_{d}}^{i2p} y_{d}^{i1p} + s_{\gamma}^{2} \overline{y_{u}}^{i2p} y_{u}^{i1p} \right) LF_{2,1,1,-1} \left[ \widetilde{\mu}, m_{1}, m_{\tilde{q}}^{i2} \right] -
                                                                                                                                               \frac{1}{24} \ g_{1}^{2} \ \left(c_{\gamma}^{2} \ \overline{y_{d}}^{i2p} \ y_{d}^{i1p} + s_{\gamma}^{2} \ \overline{y_{u}}^{i2p} \ y_{u}^{i1p}\right) \ \mathsf{LF}_{3,1,1,-2} \left[\widetilde{\mu} \ , \ \mathsf{m}_{1} \ , \ \mathsf{m}_{\tilde{q}}^{i2}\right] + \\
                                                                                                                                               \frac{1}{24} \text{ m}_{1} \text{ s}_{\Upsilon} \, \widetilde{\mu} \text{ c}_{\Upsilon} \, \text{g}_{1}^{2} \, \left( \overline{y_{d}}^{\text{i2p}} \, y_{d}^{\text{i1p}} + \overline{y_{u}}^{\text{i2p}} \, y_{u}^{\text{i1p}} \right) \, \text{LF}_{3,1,1,-1} \big[ \widetilde{\mu}, \, \text{m}_{1}, \, \text{m}_{\tilde{q}}^{\text{i2}} \big] \, - \, \left( \overline{y_{d}}^{\text{i2p}} \, y_{d}^{\text{i1p}} + \overline{y_{u}}^{\text{i2p}} \, y_{u}^{\text{i1p}} \right) \, \text{LF}_{3,1,1,-1} \big[ \widetilde{\mu}, \, \text{m}_{1}, \, \text{m}_{\tilde{q}}^{\text{i2}} \big] \, - \, \left( \overline{y_{d}}^{\text{i2p}} \, y_{d}^{\text{i2p}} \, y_{d}^{\text{i2p}} + \overline{y_{u}}^{\text{i2p}} \, y_{d}^{\text{i2p}} \right) \, \text{LF}_{3,1,1,-1} \big[ \widetilde{\mu}, \, \text{m}_{1}, \, \text{m}_{\tilde{q}}^{\text{i2p}} \, y_{d}^{\text{i2p}} + \overline{y_{u}}^{\text{i2p}} \, y_{d}^{\text{i2p}} \, y_{d}^{\text{i2p}} \, y_{d}^{\text{i2p}} + \overline{y_{u}}^{\text{i2p}} \, y_{d}^{\text{i2p}} \, y_{d}^{\text{i2p}} + \overline{y_{u}}^{\text{i2p}} \, y_{d}^{\text{i2p}} \, y_{
                                                                                                                                               \frac{1}{16} \ g_1{}^2 \ s_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,1,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_1 \,,\, \mathsf{m}_{\widetilde{u}}{}^p \big] \,+\, \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_1 \,,\, \mathsf{m}_{\widetilde{u}}{}^p \big] \,+\, \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_1 \,,\, \mathsf{m}_{\widetilde{u}}{}^p \big] \,+\, \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_1 \,,\, \mathsf{m}_{\widetilde{u}}{}^p \big] \,+\, \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_1 \,,\, \mathsf{m}_{\widetilde{u}}{}^p \big] \,+\, \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_1 \,,\, \mathsf{m}_{\widetilde{u}}{}^p \big] \,+\, \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_1 \,,\, \mathsf{m}_{\widetilde{u}}{}^p \big] \,+\, \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_1 \,,\, \mathsf{m}_{\widetilde{u}}{}^p \big] \,+\, \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ s_y{}^2 \ \widetilde{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_1 \,,\, \mathsf{m}_{\widetilde{u}}{}^p \big] \,+\, \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ s_y{}^2 \ \widetilde{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_1 \,,\, \mathsf{m}_{\widetilde{u}}{}^p \big] \,+\, \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ s_y{}^2 \ \widetilde{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_1 \,,\, \mathsf{m}_1 \,,\, \mathsf{m}_2 \,,\, \mathsf{m}_2 \,,\, \mathsf{m}_2 \,,\, \mathsf{m}_2 \,,\, \mathsf{m}_3 \,,\,
                                                                                                                                                   \frac{3}{16} \; g_2^2 \; c_\gamma^2 \; \overline{y_d}^{i2p} \; y_d^{\;i1p} \; \mathsf{LF}_{2,1,1,-1} \big[ \widetilde{\mu} \,, \; \mathsf{m}_2 \,, \; \mathsf{m}_{\bar{d}}^{\;p} \big] \; - \; \frac{3}{8} \; g_2^2 \; s_\gamma^2 \; \widetilde{\mu}^2 \; \overline{y_d}^{i2p} \; y_d^{\;i1p} \; \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \; \mathsf{m}_2 \,, \; \mathsf{m}_{\bar{d}}^{\;p} \big] \; - \; \frac{3}{8} \; g_2^2 \; s_\gamma^2 \; \widetilde{\mu}^2 \; \overline{y_d}^{\;i2p} \; y_d^{\;i1p} \; \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \; \mathsf{m}_2 \,, \; \mathsf{m}_{\bar{d}}^{\;p} \big] \; - \; \frac{3}{8} \; g_2^2 \; s_\gamma^2 \; \widetilde{\mu}^2 \; \overline{y_d}^{\;i2p} \; y_d^{\;i1p} \; \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \; \mathsf{m}_2 \,, \; \mathsf{m}_{\bar{d}}^{\;p} \big] \; - \; \frac{3}{8} \; g_2^2 \; s_\gamma^2 \; \widetilde{\mu}^2 \; \overline{y_d}^{\;i2p} \; y_d^{\;i1p} \; \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \; \mathsf{m}_2 \,, \; \mathsf{m}_{\bar{d}}^{\;p} \big] \; - \; \frac{3}{8} \; g_2^2 \; s_\gamma^2 \; \widetilde{\mu}^2 \; \overline{y_d}^{\;i2p} \; y_d^{\;i1p} \; \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \; \mathsf{m}_2 \,, \; \mathsf{m}_{\bar{d}}^{\;p} \big] \; - \; \frac{3}{8} \; g_2^2 \; s_\gamma^2 \; \widetilde{\mu}^2 \; \overline{y_d}^{\;i2p} \; y_d^{\;i1p} \; \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \; \mathsf{m}_2 \,, \; \mathsf{m}_{\bar{d}}^{\;p} \big] \; - \; \frac{3}{8} \; g_2^2 \; s_\gamma^2 \; \widetilde{\mu}^2 \; \overline{y_d}^{\;i2p} \; y_d^{\;i1p} \; \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \; \mathsf{m}_2 \,, \; \mathsf{m}_{\bar{d}}^{\;p} \big] \; - \; \frac{3}{8} \; g_2^2 \; s_\gamma^2 \; \widetilde{\mu}^2 \; \overline{y_d}^{\;i2p} \; y_d^{\;i1p} \; \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \; \mathsf{m}_2 \,, \; \mathsf{m}_{\bar{d}}^{\;p} \big] \; - \; \frac{3}{8} \; g_2^2 \; s_\gamma^2 \; \widetilde{\mu}^2 \; \overline{y_d}^{\;i2p} \; y_d^{\;i1p} \; \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \; \mathsf{m}_2 \,, \; \mathsf{m}_{\bar{d}}^{\;p} \big] \; - \; \frac{3}{8} \; g_2^2 \; s_\gamma^2 \; \widetilde{\mu}^2 \; \overline{y_d}^{\;i2p} \; y_d^{\;i1p} \; \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \; \mathsf{m}_2 \,, \; \mathsf{
                                                                                                                                               \frac{9}{16} \ g_{2}^{2} \ \left(c_{\gamma}^{2} \ \overline{y_{d}}^{i2p} \ y_{d}^{i1p} - s_{\gamma}^{2} \ \overline{y_{u}}^{i2p} \ y_{u}^{i1p}\right) \ \mathsf{LF}_{2,1,1,-1}\big[\widetilde{\mu}, \ \mathsf{m}_{2}, \ \mathsf{m}_{\tilde{q}}^{i1}\big] \ +
                                                                                                                                                                                      \mathsf{m}_2 \; \mathsf{s}_{\gamma} \; \widetilde{\boldsymbol{\mu}} \; \mathsf{c}_{\gamma} \; \mathsf{g}_2^{\; 2} \; \left( - \, \overline{\mathsf{y}_d}^{\, \mathsf{i} \, \mathsf{2p}} \; \mathsf{y}_d^{\, \, \mathsf{i} \, \mathsf{1p}} + \overline{\mathsf{y}_u}^{\, \, \mathsf{i} \, \mathsf{2p}} \; \mathsf{y}_u^{\, \, \mathsf{i} \, \mathsf{1p}} \right) \; \mathsf{LF}_{2,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1}} \right] \; + \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1p}} \right] \; + \; \mathsf{LF}_{2,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1p}} \right] \; + \; \mathsf{LF}_{2,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1p}} \right] \; + \; \mathsf{LF}_{2,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1p}} \right] \; + \; \mathsf{LF}_{2,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1p}} \right] \; + \; \mathsf{LF}_{2,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1p}} \right] \; + \; \mathsf{LF}_{2,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1p}} \right] \; + \; \mathsf{LF}_{2,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1p}} \right] \; + \; \mathsf{LF}_{2,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1p}} \right] \; + \; \mathsf{LF}_{2,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1p}} \right] \; + \; \mathsf{LF}_{2,1,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1p}} \right] \; + \; \mathsf{LF}_{2,1,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1p}} \right] \; + \; \mathsf{LF}_{2,1,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \mathsf{i} \, \mathsf{1p}} \right] \; + \; \mathsf{LF}_{2,1,1,1,0} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m}_2 
                                                                                                                                                                                          {g_{2}}^{2} \, \left( {c_{\gamma}}^{2} \, \overline{y_{d}}^{i\, 2p} \, {y_{d}}^{i\, 1p} - {s_{\gamma}}^{2} \, \overline{y_{u}}^{i\, 2p} \, {y_{u}}^{i\, 1p} \right) \, LF_{3,1,1,-2} \big[ \widetilde{\mu} \, , \, m_{2} \, , \, m_{\tilde{q}}^{\, i\, 1} \big] \, + \, c_{1}^{2} \, \left( {c_{\gamma}}^{2} \, \overline{y_{d}}^{i\, 2p} \, {y_{d}}^{i\, 1p} - {s_{\gamma}}^{2} \, \overline{y_{u}}^{i\, 2p} \, {y_{u}}^{i\, 1p} \right) \, LF_{3,1,1,-2} \big[ \widetilde{\mu} \, , \, m_{2} \, , \, m_{\tilde{q}}^{\, i\, 1} \big] \, + \, c_{1}^{2} \, \left( {c_{\gamma}}^{2} \, \overline{y_{d}}^{i\, 2p} \, {y_{d}}^{i\, 2p} \, {y_{d}}^{i\, 2p} - {s_{\gamma}}^{2} \, \overline{y_{u}}^{i\, 2p} \, {y_{u}}^{i\, 2p} \, {y_{u}}^{i\, 2p} \right) \, LF_{3,1,1,-2} \big[ \widetilde{\mu} \, , \, m_{2} \, , \, m_{\tilde{q}}^{\, i\, 1p} \, - \, {s_{\gamma}}^{2} \, \overline{y_{u}}^{i\, 2p} \, {y_{u}}^{i\, 2p} \, {y_{u}}^{i
                                                                                                                                                                                          \text{m}_2 \; \text{s}_{\text{Y}} \; \widetilde{\mu} \; \text{c}_{\text{Y}} \; \text{g}_2^{\; 2} \; \left( \overline{y_d}^{\text{i2p}} \; y_d^{\, \text{i1p}} - \overline{y_u}^{\text{i2p}} \; y_u^{\, \text{i1p}} \right) \; \text{LF}_{3,1,1,-1} \big[ \widetilde{\mu} \, , \; \text{m}_2 \, , \; \text{m}_{\tilde{q}}^{\, \text{i1}} \big] \; - \; \text{m}_{\tilde{q}}^{\; \text{i1p}} \, , \; \text{m}_{\tilde
                                                                                                                                                                                                       g_{2}{}^{2} \; \left( c_{\gamma}{}^{2} \; \overline{y_{d}}^{i2p} \; y_{d}{}^{i1p} - s_{\gamma}{}^{2} \; \overline{y_{u}}^{i2p} \; y_{u}{}^{i1p} \right) \; \mathsf{LF}_{2,1,1,-1} \big[ \widetilde{\mu} \, , \; \mathsf{m}_{2} \, , \; \mathsf{m}_{\tilde{q}}{}^{i2} \big] \; + \\
                                                                                                                                                                                      \mathsf{m}_2 \; \mathsf{s}_\gamma \; \widetilde{\boldsymbol{\mu}} \; \mathsf{c}_\gamma \; \mathsf{g_2}^2 \; \left( - \, \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} + \overline{\mathsf{y_u}}^{\mathsf{i2p}} \; \mathsf{y_u}^{\mathsf{i1p}} \right) \; \mathsf{LF}_{\mathsf{2,1,1,0}} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \mathsf{m_2} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i2}} \, \right] \; + \; \mathsf{m_2}^{\mathsf{i2p}} \; \mathsf{v_d}^{\mathsf{i2p}} \; \mathsf{v_d}^{\mathsf{i2p}} \right] \; + \; \mathsf{v_d}^{\mathsf{i2p}} \; \mathsf
                                                                                                                                                                                               {g_2}^2 \, \left( {{c_{\gamma}}^2} \, \overline{{y_d}}^{i2p} \, {y_d}^{i1p} - {s_{\gamma}}^2 \, \overline{{y_u}}^{i2p} \, {y_u}^{i1p} \right) \, LF_{3,1,1,-2} \big[ \, \widetilde{\mu} \, , \, m_2 \, , \, m_{\tilde{q}}^{\,\,i2} \, \big] \, + \, \left( {{m_2}^2} \, \overline{{y_d}}^{i2p} \, {y_d}^{i1p} - {s_{\gamma}}^2 \, \overline{{y_d}}^{i2p} \, {y_d}^{i1p} \right) \, LF_{3,1,1,-2} \big[ \, \widetilde{\mu} \, , \, m_2 \, , \, m_{\tilde{q}}^{\,\,i2} \, \big] \, + \, \left( {{m_2}^2} \, \overline{{y_d}}^{i2p} \, {y_d}^{i1p} - {s_{\gamma}}^2 \, \overline{{y_d}}^{i2p} \, {y_d}^{i1p} \right) \, LF_{3,1,1,-2} \big[ \, \widetilde{\mu} \, , \, m_2 \, , \, m_{\tilde{q}}^{\,\,i2p} \, \big] \, + \, \left( {{m_2}^2} \, \overline{{y_d}}^{i2p} \, , \, m_2 \, , \, m_{\tilde{q}}^{\,\,i2p} \, \big] \, + \, \left( {{m_2}^2} \, \overline{{y_d}}^{i2p} \, , \, m_2 \, , \, m_{\tilde{q}}^{\,\,i2p} \, \big) \, \right) \, .
                                                                                                                                                                                      s_{\gamma}\,\widetilde{\mu}\,\overline{y_{d}}^{\text{i2p}}\,\overline{y_{u}}^{\text{rs}}\,y_{u}^{\text{i1s}}\,\left(-\,c_{\gamma}\,a_{d}^{\,\text{rp}}\,+\,s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\text{rp}}\right)\,\text{LF}_{2,1,1,0}\!\left[\,\widetilde{\mu}\,,\,m_{\tilde{d}}^{\,\,\text{p}}\,,\,m_{\tilde{q}}^{\,\,\text{r}}\,\right]\,+\,c_{1}^{\,\,\text{re}}\left(-\,c_{\gamma}\,a_{d}^{\,\,\text{rp}}\,+\,s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\,\text{rp}}\right)\,\text{LF}_{2,1,1,0}\left[\,\widetilde{\mu}\,,\,m_{\tilde{d}}^{\,\,\text{p}}\,,\,m_{\tilde{q}}^{\,\,\text{r}}\,\right]\,+\,c_{1}^{\,\,\text{re}}\left(-\,c_{\gamma}\,a_{d}^{\,\,\text{rp}}\,+\,s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\,\text{rp}}\right)\,\text{LF}_{2,1,1,0}\left[\,\widetilde{\mu}\,,\,m_{\tilde{d}}^{\,\,\text{p}}\,,\,m_{\tilde{q}}^{\,\,\text{r}}\,\right]\,+\,c_{1}^{\,\,\text{re}}\left(-\,c_{\gamma}\,a_{d}^{\,\,\text{rp}}\,+\,s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\,\text{rp}}\right)\,
                                                                                                                                                                                      s_{_{Y}}\,\widetilde{\mu}\,\overline{y_{d}}^{12p}\,\overline{y_{u}}^{rs}\,y_{u}^{\phantom{u}i1s}\,\left(c_{_{Y}}\,a_{d}^{\phantom{d}rp}-s_{_{Y}}\,\widetilde{\mu}\,y_{d}^{\phantom{d}rp}\right)\,LF_{3,1,1,-1}\big[\widetilde{\mu}\,,\,m_{\tilde{d}}^{\phantom{u}p},\,m_{\tilde{q}}^{\phantom{q}r}\big]\,+
                                                                                                                                               \frac{1}{8} \; \mathbf{S}_{\gamma} \; \widetilde{\boldsymbol{\mu}} \; \mathbf{y_d}^{\texttt{ilr}} \; \overline{\mathbf{y_u}}^{\texttt{i2S}} \; \mathbf{y_u}^{\texttt{pS}} \; \left( - \, \mathbf{C}_{\gamma} \; \overline{\mathbf{a_d}}^{\texttt{pr}} + \, \mathbf{S}_{\gamma} \; \widetilde{\boldsymbol{\mu}} \; \overline{\mathbf{y_d}}^{\texttt{pr}} \right) \; \mathsf{LF_{2,1,1,0}} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \boldsymbol{m_{\tilde{q}}}^{\texttt{r}} \, , \; \boldsymbol{m_{\tilde{q}}}^{\texttt{p}} \, \right] \; + \; \mathsf{Her} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \boldsymbol{m_{\tilde{q}}}^{\texttt{pr}} \, , \; \boldsymbol{m_{\tilde{q}}}^{\texttt{p}} \, \right] \; + \; \mathsf{Her} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \boldsymbol{m_{\tilde{q}}}^{\texttt{pr}} \, , \; \boldsymbol{m_{\tilde{q}}}^{\texttt{pr}} \, , \; \boldsymbol{m_{\tilde{q}}}^{\texttt{pr}} \, \right] \; + \; \mathsf{Her} \left[ \, \widetilde{\boldsymbol{\mu}} \, , \; \boldsymbol{m_{\tilde{q}}}^{\texttt{pr}} \, , \; \boldsymbol{m_{\tilde
                                                                                                                                               \overset{1}{\overset{\circ}{\circ}} \; \mathsf{s}_{\mathsf{Y}} \, \tilde{\mu} \; \mathsf{c}_{\mathsf{Y}} \, \overline{\mathsf{y}_{\mathsf{d}}}^{\mathsf{i2s}} \, \mathsf{y}_{\mathsf{d}}^{\mathsf{ps}} \, \mathsf{y}_{\mathsf{u}}^{\;\mathsf{i1r}} \, \overline{\mathsf{a}_{\mathsf{u}}}^{\mathsf{pr}} \, \mathsf{LF}_{\mathsf{2,1,1,0}} \big[ \tilde{\mu} \, , \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\;\mathsf{p}} \, , \, \mathsf{m}_{\tilde{\mathsf{u}}}^{\;\mathsf{r}} \big]
                                                                                                                                                   \frac{1}{\alpha} \, s_{\gamma} \, \widetilde{\mu} \, c_{\gamma} \, \overline{y_d}^{i2s} \, y_d^{ps} \, y_u^{i1r} \, \overline{a_u}^{pr} \, LF_{3,1,1,-1} \big[ \widetilde{\mu}, \, m_{\widetilde{q}}^{\,\,p}, \, m_{\widetilde{u}}^{\,\,r} \big] +
                                                                                                                                                                                      \widetilde{\mu} \; c_{\gamma} \; \overline{y_{d}}^{\text{pr}} \; y_{d}^{\text{ilr}} \; \overline{y_{u}}^{\text{i2s}} \; \left(s_{\gamma} \; a_{u}^{\; \text{ps}} - \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{ps}}\right) \; \mathsf{LF}_{2,1,1,9} \left[\widetilde{\mu} \, , \; m_{\widetilde{q}}^{\; \; \text{p}} \, , \; m_{\widetilde{u}}^{\; \; \text{s}}\right] \; + \\
                                                                                                                                                                                      \widetilde{\mu} \; \mathbf{c_{\gamma}} \; \overline{\mathbf{y_d}}^{\text{pr}} \; \mathbf{y_d}^{\text{ilr}} \; \overline{\mathbf{y_u}}^{\text{i2s}} \; \left( - \, \mathbf{s_{\gamma}} \; a_u^{\; \text{ps}} + \widetilde{\mu} \; \mathbf{c_{\gamma}} \; \mathbf{y_u}^{\text{ps}} \right) \; \mathsf{LF_{3,1,1,-1}} \left[ \widetilde{\mu} \, , \; \mathbf{m_{\tilde{q}}}^{\; \text{p}} \, , \; \mathbf{m_{\tilde{u}}}^{\text{s}} \right] \; - \; \mathsf{m_{\tilde{u}}}^{\; \text{pr}} \; \mathsf{m_{\tilde{u}}}^{\; \text{pr}} \right] \; \mathsf{LF_{3,1,1,-1}} \left[ \widetilde{\mu} \, , \; \mathbf{m_{\tilde{q}}}^{\; \text{p}} \, , \; \mathbf{m_{\tilde{u}}}^{\; \text{s}} \right] \; - \; \mathsf{m_{\tilde{u}}}^{\; \text{pr}} \; \mathsf{m_{\tilde{u}}}^{\; \text{pr}} \; \mathsf{m_{\tilde{u}}}^{\; \text{pr}} \; \mathsf{m_{\tilde{u}}}^{\; \text{pr}} \right] \; - \; \mathsf{m_{\tilde{u}}}^{\; \text{pr}} \; \mathsf{m_{\tilde{
                                                                                                                                                                                          \tilde{\mu}^2\;c_{\gamma}^{\;2}\,\overline{y_d}^{i2p}\;y_d^{\;rp}\,\overline{y_u}^{rs}\;y_u^{\;i1s}\;\mathsf{LF}_{2,1,1,0}\big[\tilde{\mu}\,,\,\mathsf{m}_{\tilde{q}}{}^r\,,\,\mathsf{m}_{\tilde{u}}{}^s\big]\;+
                                                                                                                                                                                          \tilde{\mu}^2\;c_{\gamma}^2\;\overline{y_d}^{i\,2p}\;y_d^{\,rp}\;\overline{y_u}^{rs}\;y_u^{\,i\,1s}\;LF_{3,1,1,-1}\big[\,\tilde{\mu}\,,\,m_{\tilde{q}}^{\,\,r}\,,\,m_{\tilde{u}}^{\,\,s}\,\big]\;-
                                                                                                                                                                                                       g_{1}^{2} \; \overline{y_{d}}^{i2p} \; \left( \mathsf{m_{1}} \; c_{\gamma} - s_{\gamma} \; \widetilde{\boldsymbol{\mu}} \right) \; \left( c_{\gamma} \; a_{d}^{\; i1p} - s_{\gamma} \; \widetilde{\boldsymbol{\mu}} \; y_{d}^{\; i1p} \right) \; \mathsf{LF_{1,1,1,1,0}} \left[ \mathsf{m_{1}}, \; \mathsf{m_{\tilde{d}}}^{p}, \; \mathsf{m_{\tilde{q}}}^{i1}, \; \widetilde{\boldsymbol{\mu}} \right] \; - \; \mathsf{m_{\tilde{q}}}^{i1} \; \mathsf{m_{\tilde{q}}}^{i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \left(c_{\gamma}\,a_{d}^{\,\text{ilp}}-s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\text{ilp}}\right)\,LF_{2,\text{l,l,l,l}}\!\left[m_{\text{l}},\,m_{\tilde{d}}^{\,}\right]
                                                                                                                                                                                                                                                                                                                                                                                     ^{	extsf{i2p}} (	extsf{m}_1 	extsf{c}_{\scriptscriptstyle \gamma}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              + \mathbf{S}_{\gamma} \widetilde{\mu})
                                                                                                                                                                                                       \mathsf{g_1}^2 \ \mathsf{y_d}^{\texttt{ilp}} \ (\mathsf{m_1} \ \mathsf{c_{\scriptscriptstyle \gamma}} - \mathsf{s_{\scriptscriptstyle \gamma}} \ \widetilde{\boldsymbol{\mu}}) \ \left(\mathsf{c_{\scriptscriptstyle \gamma}} \ \overline{\mathsf{a_d}}^{\texttt{i2p}} - \mathsf{s_{\scriptscriptstyle \gamma}} \ \widetilde{\boldsymbol{\mu}} \ \overline{\mathsf{y_d}}^{\texttt{i2p}}\right) \ \mathsf{LF_{1,1,1,1,0}} \big[ \, \mathsf{m_1} \ , \ \mathsf{m_{\tilde{\mathsf{q}}}}^{\mathsf{p}} \, , \ \mathsf{m_{\tilde{\mathsf{q}}}}^{\texttt{i2}} \, , \ \widetilde{\boldsymbol{\mu}} \, \big] \ - \ \mathsf{m_{\tilde{\mathsf{q}}}}^{\mathsf{i2p}} \, , \ \mathsf{m_
                                                                                                                                               \frac{1}{96} \ g_1^{\ 2} \ y_d^{\ i1p} \ (m_1 \ c_{\scriptscriptstyle \Upsilon} + s_{\scriptscriptstyle \Upsilon} \ \widetilde{\mu}) \ \left(c_{\scriptscriptstyle \Upsilon} \ \overline{a_d}^{\ i2p} - s_{\scriptscriptstyle \Upsilon} \ \widetilde{\mu} \ \overline{y_d}^{\ i2p}\right) \ \mathsf{LF}_{2,1,1,1,-1} \big[m_1, \ m_{\tilde{d}}^{\ p}, \ m_{\tilde{q}}^{\ i2}, \ \widetilde{\mu}\big] \ - \ (m_1, m_{\tilde{d}}^{\ p}, \ m_{\tilde{q}}^{\ i2}, \ \widetilde{\mu}) \ + \ (m_1, m_{\tilde{d}}^{\ p}, \ m_{\tilde{q}}^{\ i2}, \ \widetilde{\mu}) \ + \ (m_1, m_{\tilde{d}}^{\ p}, \ m_{\tilde{q}}^{\ i2}, \ \widetilde{\mu}) \ + \ (m_1, m_{\tilde{d}}^{\ p}, \ m_{\tilde{q}}^{\ i2}, \ \widetilde{\mu}) \ + \ (m_1, m_{\tilde{d}}^{\ p}, \ m_{\tilde{q}}^{\ i2}, \ \widetilde{\mu}) \ + \ (m_1, m_{\tilde{d}}^{\ p}, \ m_{\tilde{q}}^{\ i2}, \ \widetilde{\mu}) \ + \ (m_1, m_{\tilde{d}}^{\ p}, \ m_{\tilde{q}}^{\ i2}, \ \widetilde{\mu}) \ + \ (m_1, m_{\tilde{d}}^{\ p}, \ m_{\tilde{q}}^{\ i2}, \ \widetilde{\mu}) \ + \ (m_1, m_{\tilde{d}}^{\ p}, \ m_{\tilde{q}}^{\ i2}, \ \widetilde{\mu}) \ + \ (m_1, m_{\tilde{d}}^{\ p}, \ m_{\tilde{q}}^{\ i2}, \ \widetilde{\mu}) \ + \ (m_1, m_{\tilde{d}}^{\ p}, \ m_{\tilde{q}}^{\ p
                                                                                                                                                                                                       g_{1}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,\left(m_{1}\,s_{\gamma}-\widetilde{\mu}\,c_{\gamma}\right)\,\left(s_{\gamma}\,a_{u}{}^{i\,1p}-\widetilde{\mu}\,c_{\gamma}\,y_{u}{}^{i\,1p}\right)\,\mathsf{LF}_{1,1,1,1,0}\!\left[m_{1},\,m_{\tilde{q}}{}^{i\,1},\,m_{\tilde{u}}{}^{p},\,\widetilde{\mu}\right]-\frac{1}{2}\left(m_{1}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}+\widetilde{\mu}\,s_{\gamma}
                                                                                                                                               \frac{1}{96} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{i2p} \ (m_{1} \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma}) \ \left(s_{\gamma} \ a_{u}{}^{i1p} - \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{1}, \ m_{\tilde{q}}{}^{i1}, \ m_{\tilde{u}}{}^{p}, \ \widetilde{\mu}\right] - \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{i1p}
                                                                                                                                                                                                       g_{1}{}^{2}\;y_{u}{}^{i1p}\;\left(\mathsf{m}_{1}\;\mathsf{s}_{\gamma}-\widetilde{\mu}\;\mathsf{c}_{\gamma}\right)\;\left(\mathsf{s}_{\gamma}\;\overline{\mathsf{a}_{u}}{}^{i2p}-\widetilde{\mu}\;\mathsf{c}_{\gamma}\;\overline{\mathsf{y}_{u}}{}^{i2p}\right)\;\mathsf{LF}_{1,1,1,1,0}\!\left[\mathsf{m}_{1}\;,\;\mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2}\;,\;\mathsf{m}_{\tilde{\mathsf{u}}}{}^{p}\;,\;\widetilde{\mu}\right]-\mathsf{m}_{1}{}^{2}\;\mathsf{m}_{2}{}^{2}\;\mathsf{m}_{2}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;\mathsf{m}_{3}{}^{2}\;
                                                                                                                                               48
                                                                                                                                           \frac{1}{96} \ g_{1}{}^{2} \ y_{u}{}^{i1p} \ (m_{1} \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma}) \ \left(s_{\gamma} \ \overline{a_{u}}{}^{i2p} - \widetilde{\mu} \ c_{\gamma} \ \overline{y_{u}}{}^{i2p}\right) \ LF_{2,1,1,1,-1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2}, \ m_{\tilde{u}}{}^{p}, \ \widetilde{\mu}\right] - \widetilde{\mu} \left(s_{\gamma} \ \overline{a_{u}}{}^{i2p} - \widetilde{\mu} \ c_{\gamma} \ \overline{y_{u}}{}^{i2p}\right) \ LF_{2,1,1,1,-1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2}, \ m_{\tilde{u}}{}^{p}, \ \widetilde{\mu}\right] - \widetilde{\mu} \left(s_{\gamma} \ \overline{a_{u}}{}^{i2p} - \widetilde{\mu} \ c_{\gamma} \ \overline{y_{u}}{}^{i2p}\right) \ LF_{2,1,1,1,-1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2}, \ m_{\tilde{u}}{}^{p}, \ \widetilde{\mu}\right] - \widetilde{\mu} \left(s_{\gamma} \ \overline{y_{u}}{}^{i2p} - \widetilde{\mu} \ c_{\gamma} \ \overline{y_{u}}{}^{i2p}\right) \ LF_{2,1,1,1,-1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2}, \ m_{\tilde{u}}{}^{p}, \ \widetilde{\mu}\right] - \widetilde{\mu} \left(s_{\gamma} \ \overline{y_{u}}{}^{i2p} - \widetilde{\mu} \ c_{\gamma} \ \overline{y_{u}}{}^{i2p}\right) \ LF_{2,1,1,1,-1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2}, \ m_{\tilde{u}}{}^{p}, \ \widetilde{\mu}\right] - \widetilde{\mu} \left(s_{\gamma} \ \overline{y_{u}}{}^{i2p} - \widetilde{\mu} \ c_{\gamma} \ \overline{y_{u}}{}^{i2p}\right) \ LF_{2,1,1,1,-1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2}, \ m_{\tilde{u}}{}^{p}, \ \widetilde{\mu}\right] - \widetilde{\mu} \left(s_{\gamma} \ \overline{y_{u}}{}^{i2p} - \widetilde{\mu} \ c_{\gamma} \ \overline{y_{u}}{}^{i2p}\right) \ LF_{2,1,1,1,1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2}, \ m_{\tilde{u}}{}^{i2p}, \ m_{\tilde{u}}{}^{p}\right] - \widetilde{\mu} \left(s_{\gamma} \ \overline{y_{u}}{}^{i2p}\right) \ LF_{2,1,1,1,1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2}, \ m_{\tilde{u}}{}^{p}\right] - \widetilde{\mu} \left(s_{\gamma} \ \overline{y_{u}}\right) \ LF_{2,1,1,1,1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2p}\right] - \widetilde{\mu} \left(s_{\gamma} \ \overline{y_{u}}\right) \ LF_{2,1,1,1,1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2p}\right] + \widetilde{\mu} \left(s_{\gamma} \ \overline{y_{u}}\right) \ LF_{2,1,1,1,1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2p}\right] + \widetilde{\mu} \left(s_{\gamma} \ \overline{y_{u}}\right) \ LF_{2,1,1,1,1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2p}\right] + \widetilde{\mu} \left(s_{\gamma} \ \overline{y_{u}}\right) \ LF_{2,1,1,1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2p}\right] + \widetilde{\mu} \left(s_{\gamma} \ \overline{y_{u}}\right) \ LF_{2,1,1,1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2p}\right] + \widetilde{\mu} \left(s_{\gamma} \ \overline{y_{u}}\right) \ LF_{2,1,1} \left[m_{1}, \ m_{\tilde{q}}{}^{i2p}\right] + \widetilde{\mu} \left(s_{\gamma} \ \overline{y_{u}}\right) \ LF_{2,1} \left[m_{1}, \ m_{1}, \ m
                                                                                                                                           \frac{3}{16} \ g_{2}{}^{2} \ \overline{y_{d}}{}^{i2p} \ (m_{2} \ c_{\gamma} - s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ a_{d}{}^{i1p} - s_{\gamma} \ \widetilde{\mu} \ y_{d}{}^{i1p}\right) \ LF_{1,1,1,1,0} \left[m_{2} \ , \ m_{\tilde{d}}{}^{\tilde{p}} \ , \ m_{\tilde{q}}{}^{i1} \ , \ \widetilde{\mu}\right] - c_{\gamma} \ \widetilde{\mu} \ \widetilde{\mu
                                                                                                                                                                                                       g_{2}{}^{2}\,\overline{y_{d}}{}^{i\,2p}\,\left(m_{2}\,\,c_{\gamma}+s_{\gamma}\,\widetilde{\mu}\right)\,\left(c_{\gamma}\,\,a_{d}{}^{i\,1p}-s_{\gamma}\,\widetilde{\mu}\,\,y_{d}{}^{i\,1p}\right)\,LF_{2,1,1,1,-1}\!\left[m_{2}\,,\,m_{\tilde{d}}^{-p},\,m_{\tilde{q}}^{-1}\right]
                                                                                                                                           \frac{\text{3}}{\text{16}} \ g_{2}^{\ 2} \ y_{d}^{\ \text{ilp}} \ (\text{m}_{2} \ c_{\gamma} - s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} - s_{\gamma} \ \widetilde{\mu} \ \overline{y_{d}}^{\ \text{i}2p}\right) \ \text{LF}_{1,1,1,1,0} \left[\,\text{m}_{2} \, , \ \text{m}_{\tilde{d}}^{\ \text{p}} \, , \ \text{m}_{\tilde{q}}^{\ \text{i}2} \, , \ \widetilde{\mu}\,\right] \ - \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} - s_{\gamma} \ \widetilde{\mu} \ \overline{y_{d}}^{\ \text{i}2p}\right) \ \text{LF}_{1,1,1,1,0} \left[\,\text{m}_{2} \, , \ \text{m}_{\tilde{d}}^{\ \text{i}2} \, , \ \text{m}_{\tilde{q}}^{\ \text{i}2} \, , \ \widetilde{\mu}\,\right] \ - \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} - s_{\gamma} \ \widetilde{\mu} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ \text{LF}_{1,1,1,1,0} \left[\,\text{m}_{2} \, , \ \text{m}_{\tilde{d}}^{\ \text{i}2p} \, , \ \text{m}_{\tilde{q}}^{\ \text{i}2} \, , \ \widetilde{\mu}\,\right] \ - \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} - s_{\gamma} \ \widetilde{\mu} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ \text{LF}_{1,1,1,1,1,0} \left[\,\text{m}_{2} \, , \ \text{m}_{\tilde{d}}^{\ \text{i}2p} \, , \ \text{m}_{\tilde{q}}^{\ \text{i}2p} \, , \ \overline{\mu}\, , \ \overline{\mu}^{\ \text{i}2p}\right] \ - \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} - s_{\gamma} \, , \ \overline{\mu}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ \text{i}2p} \, , \ \overline{\mu}^{\ \text{i}2p}\right) \ + \left(c_{\gamma} \ \overline{a_{d}}^{\ 
                                                                                                                                                                                                       g_{2}{}^{2}\;y_{d}{}^{i1p}\;\left(m_{2}\;c_{\gamma}+s_{\gamma}\;\widetilde{\mu}\right)\;\left(c_{\gamma}\;\overline{a_{d}}{}^{i2p}-s_{\gamma}\;\widetilde{\mu}\;\overline{y_{d}}{}^{i2p}\right)\;LF_{2,1,1,1,-1}\!\left[m_{2}\;,\;m_{\tilde{d}}^{\;\;p}\;,\;m_{\tilde{q}}^{\;\;i2}\;,\;\widetilde{\mu}\right]\;+
                                                                                                                                                                                                            g_2^2 \; \overline{y_u^{\text{i2p}}} \; \left( \text{m}_2 \; \text{s}_{\gamma} - \widetilde{\mu} \; \text{c}_{\gamma} \right) \; \left( \text{s}_{\gamma} \; \text{a}_u^{\; \text{i1p}} - \widetilde{\mu} \; \text{c}_{\gamma} \; \text{y}_u^{\; \text{i1p}} \right) \; \text{LF}_{\text{1,1,1,1,0}} \big[ \, \text{m}_2 \, , \; \text{m}_{\tilde{q}}^{\; \text{i1}} \, , \; \text{m}_{\tilde{u}}^{\; \text{p}} \, , \; \widetilde{\mu} \, \big] \; + \; \text{c}_{\gamma} \; \text{c}_{\gamma
                                                                                                                                                                                                            g_{2}{}^{2}\,\overline{y_{u}}{}^{12p}\,\left(m_{2}\,\,s_{\gamma}+\widetilde{\mu}\,\,c_{\gamma}\right)\,\,\left(s_{\gamma}\,\,a_{u}{}^{11p}-\widetilde{\mu}\,\,c_{\gamma}\,\,y_{u}{}^{11p}\right)\,\,LF_{2,1,1,1,-1}\!\left[m_{2}\,,\,\,m_{\tilde{q}}{}^{11}\,,\,\,m_{\tilde{u}}{}^{p}\,,\,\,\widetilde{\mu}\right]\,+\frac{1}{2}\left(m_{2}\,\,s_{\gamma}+\widetilde{\mu}\,\,c_{\gamma}\right)\,\,\left(s_{\gamma}\,\,a_{u}{}^{11p}-\widetilde{\mu}\,\,c_{\gamma}\,\,y_{u}{}^{11p}\right)\,\,LF_{2,1,1,1,-1}\!\left[m_{2}\,,\,\,m_{\tilde{q}}{}^{11}\,,\,\,m_{\tilde{u}}{}^{p}\,,\,\,\widetilde{\mu}\right]\,+\frac{1}{2}\left(m_{2}\,\,s_{\gamma}+\widetilde{\mu}\,\,c_{\gamma}\right)\,\,\left(s_{\gamma}\,\,a_{u}{}^{11p}-\widetilde{\mu}\,\,c_{\gamma}\,\,y_{u}{}^{11p}\right)\,\,LF_{2,1,1,1,-1}\!\left[m_{2}\,,\,\,m_{\tilde{q}}{}^{11}\,,\,\,m_{\tilde{u}}{}^{p}\,,\,\,\widetilde{\mu}\right]\,+\frac{1}{2}\left(m_{2}\,\,s_{\gamma}+\widetilde{\mu}\,\,c_{\gamma}\right)\,\,\left(s_{\gamma}\,\,a_{u}{}^{11p}-\widetilde{\mu}\,\,c_{\gamma}\,\,y_{u}{}^{11p}\right)\,\,LF_{2,1,1,1,1,-1}\!\left[m_{2}\,,\,\,m_{\tilde{q}}{}^{11}\,,\,\,m_{\tilde{u}}{}^{p}\,,\,\,\widetilde{\mu}\right]\,+\frac{1}{2}\left(m_{2}\,\,s_{\gamma}\,\,s_{\gamma}+\widetilde{\mu}\,\,c_{\gamma}\right)\,\,\left(s_{\gamma}\,\,a_{u}{}^{11p}-\widetilde{\mu}\,\,c_{\gamma}\,\,y_{u}{}^{11p}\right)\,\,LF_{2,1,1,1,1,-1}\!\left[m_{2}\,,\,\,m_{\tilde{q}}{}^{11}\,,\,\,m_{\tilde{q}}{}^{p}\,,\,\,\widetilde{\mu}\right]\,+\frac{1}{2}\left(m_{2}\,\,s_{\gamma}\,\,s_{\gamma}+\widetilde{\mu}\,\,c_{\gamma}\,\,y_{u}{}^{p}\,,\,\,\widetilde{\mu}\right)\,+\frac{1}{2}\left(m_{2}\,\,s_{\gamma}\,\,s_{\gamma}+\widetilde{\mu}\,\,s_{\gamma}\,\,s_{\gamma}\right)\,\,.
                                                                                                                                                                                                       g_{2}{}^{2}\;y_{u}{}^{\text{ilp}}\;\left(\text{m}_{2}\;s_{\gamma}-\widetilde{\mu}\;c_{\gamma}\right)\;\left(s_{\gamma}\;\overline{a_{u}}{}^{\text{i2p}}-\widetilde{\mu}\;c_{\gamma}\;\overline{y_{u}}{}^{\text{i2p}}\right)\;\mathsf{LF}_{1,1,1,1,0}\!\left[\,\mathsf{m}_{2}\,,\;\mathsf{m}_{\tilde{q}}{}^{\text{i2}}\,,\;\mathsf{m}_{\tilde{u}}{}^{\text{p}}\,,\;\widetilde{\mu}\,\right]\;+\;\left(s_{\gamma}^{2}\;\overline{a_{u}}{}^{\text{i2p}}-\widetilde{\mu}\;c_{\gamma}^{2}\,\right)\;\mathsf{LF}_{1,1,1,1,0}\left[\,\mathsf{m}_{2}\,,\;\mathsf{m}_{\tilde{q}}{}^{\text{i2}}\,,\;\mathsf{m}_{\tilde{u}}{}^{\text{p}}\,,\;\widetilde{\mu}\,\right]\;+\;\left(s_{\gamma}^{2}\;\overline{a_{u}}{}^{\text{i2p}}-\widetilde{\mu}\;c_{\gamma}^{2}\,\right)\;\mathsf{LF}_{1,1,1,1,0}\left[\,\mathsf{m}_{2}\,,\;\mathsf{m}_{\tilde{q}}{}^{\text{i2p}}\,,\;\mathsf{m}_{\tilde{u}}{}^{\text{p}}\,,\;\widetilde{\mu}\,\right]\;+\;\left(s_{\gamma}^{2}\;\overline{a_{u}}{}^{\text{i2p}}-\widetilde{\mu}\;c_{\gamma}^{2}\,,\;\mathsf{m}_{\tilde{u}}{}^{\text{p}}\,,\;\widetilde{\mu}\,\right)\;+\;\left(s_{\gamma}^{2}\;\overline{a_{u}}{}^{\text{i2p}}-\widetilde{\mu}\;c_{\gamma}^{2}\,,\;\mathsf{m}_{\tilde{u}}{}^{\text{p}}\,,\;\widetilde{\mu}\,\right)\;+\;\left(s_{\gamma}^{2}\;\overline{a_{u}}{}^{\text{p}}\,,\;\widetilde{\mu}\,\right)\;+\;\left(s_{\gamma}^{2}\;\overline{a_{u}}{}^{\text{p}}\,,\;\widetilde{\mu}\,\right)\;+\;\left(s_{\gamma}^{2}\;\overline{a_{u}}{}^{\text{p}}\,,\;\widetilde{\mu}\,\right)\;+\;\left(s_{\gamma}^{2}\;\overline{a_{u}}{}^{\text{p}}\,,\;\widetilde{\mu}\,\right)\;+\;\left(s_{\gamma}^{2}\;\overline{a_{u}}{}^{\text{p}}\,,\;\widetilde{\mu}\,\right)\;+\;\left(s_{\gamma}^{2}\;\overline{a_{u}}{}^{\text{p}}\,,\;\widetilde{\mu}\,\right)\;+\;\left(s_{\gamma}^{2}\;\overline{a_{u}}{}^{\text{p}}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,\right)\;+\;\left(s_{\gamma}^{2}\;\overline{a_{u}}{}^{\text{p}}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}\,,\;\widetilde{\mu}
                                                                                                                                                                                                       g_{2}^{2}\;y_{u}^{\;i1p}\;\left(\text{m}_{2}\;s_{\gamma}+\widetilde{\mu}\;c_{\gamma}\right)\;\left(s_{\gamma}\;\overline{a_{u}}^{i2p}-\widetilde{\mu}\;c_{\gamma}\;\overline{y_{u}}^{i2p}\right)\;\text{LF}_{2,1,1,1,-1}\!\left[\text{m}_{2}\;,\;\text{m}_{\tilde{q}}^{\;i2}\;,\;\text{m}_{\tilde{u}}^{\;p}\;,\;\widetilde{\mu}\right]\;+
                                                                                                                                                                                                       g_{1}{}^{2}\,\overline{y_{d}}{}^{i2p}\,\left(m_{1}\,c_{\gamma}+s_{\gamma}\,\widetilde{\mu}\right)\,\left(c_{\gamma}\,a_{d}{}^{i1p}-s_{\gamma}\,\widetilde{\mu}\,y_{d}{}^{i1p}\right)\,LF_{2,1,1,1,-1}\!\left[m_{\widetilde{d}}{}^{p},\,m_{1},\,m_{\widetilde{q}}{}^{i1},\,\widetilde{\mu}\right]-c_{\gamma}\,\widetilde{\mu}
                                                                                                                                               \frac{1}{144} \ g_1^2 \ \left( c_Y \ \overline{a_d}^{i2p} - s_Y \ \widetilde{\mu} \ \overline{y_d}^{i2p} \right) \ \left( c_Y \ a_d^{i1p} - s_Y \ \widetilde{\mu} \ y_d^{i1p} \right) \ \mathsf{LF}_{2,1,1,1,-1} \left[ \mathsf{m_{\tilde{d}}}^p, \ \mathsf{m_1}, \ \mathsf{m_{\tilde{q}}}^{i2}, \ \mathsf{m_{\tilde{q}}}^{i1} \right] + c_Y \ \widetilde{a_d}^{i1p} + c_
                                                                                                                                               \frac{1}{96}~g_{1}^{2}~y_{d}^{i1p}~(m_{1}~c_{\gamma}+s_{\gamma}~\widetilde{\mu})~\left(c_{\gamma}~\overline{a_{d}}^{i2p}-s_{\gamma}~\widetilde{\mu}~\overline{y_{d}}^{i2p}\right)~LF_{2,1,1,1,-1}\big[m_{\bar{d}}^{-p}~,~m_{1}~,~m_{\bar{q}}^{-i2}~,~\widetilde{\mu}\big]~+
                                                                                                                                                                                                       g_2^2 \; \overline{y_d}^{i2p} \; \left( \mathsf{m_2} \; \mathsf{c_{\scriptscriptstyle Y}} + \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \right) \; \left( \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{a_d}^{i1p} - \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \; \mathsf{y_d}^{i1p} \right) \; \mathsf{LF_{2,1,1,1,-1}} \left[ \mathsf{m_{\bar{d}}}^p, \; \mathsf{m_2}, \; \mathsf{m_{\bar{q}}}^{i1}, \; \widetilde{\mu} \right] - \mathsf{m_{\bar{d}}}^p \; \mathsf{m_2} \; \mathsf{m_{\bar{q}}}^{i1} \; \mathsf{m_2} \; \mathsf{m_2} \; \mathsf{m_2} \; \mathsf{m_2}^{i1} \; \mathsf{m_2} 
                                                                                                                                               \frac{3}{16} \ g_{2}^{2} \ \left(c_{\gamma} \ \overline{a_{d}}^{i2p} - s_{\gamma} \ \widetilde{\mu} \ \overline{y_{d}}^{i2p}\right) \ \left(c_{\gamma} \ a_{d}^{i1p} - s_{\gamma} \ \widetilde{\mu} \ y_{d}^{i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\tilde{d}}^{-p}, \ m_{2}, \ m_{\tilde{q}}^{-i2}, \ m_{\tilde{q}}^{-i1}\right] + c_{1} \left(m_{\tilde{d}}^{-p}, \ m_{2}, \ m_{\tilde{q}}^{-i2}, \ m_{\tilde{q}}^{-i2}, \ m_{\tilde{q}}^{-i2}\right) + c_{1} \left(m_{\tilde{d}}^{-p}, \ m_{2}, \ m_{\tilde{q}}^{-i2}, \ m_{\tilde{q}}^
                                                                                                                                                                                                       g_{2}{}^{2}\;y_{d}{}^{i1p}\;\left(m_{2}\;c_{\gamma}+s_{\gamma}\;\widetilde{\mu}\right)\;\left(c_{\gamma}\;\overline{a_{d}}{}^{i2p}-s_{\gamma}\;\widetilde{\mu}\;\overline{y_{d}}{}^{i2p}\right)\;LF_{2,1,1,1,-1}\!\left[m_{\tilde{d}}^{-p},\;m_{2},\;m_{\tilde{q}}^{-i2},\;\widetilde{\mu}\right]-1
                                                                                                                                                                                      g_{3}^{2} \left( c_{\gamma} \; \overline{a_{d}}^{i\,2p} - s_{\gamma} \, \widetilde{\mu} \; \overline{y_{d}}^{i\,2p} \right) \; \left( c_{\gamma} \; a_{d}^{\;i\,1p} - s_{\gamma} \, \widetilde{\mu} \; y_{d}^{\;i\,1p} \right) \; LF_{2,1,1,1,-1} \big[ \, m_{\bar{d}}^{\;\;\bar{p}} \,, \; m_{\bar{q}}^{\;\;\bar{i}\,2} \,, \; m_{\bar{q}}^{\;\;\bar{i}\,1} \big] \; + \; c_{\gamma} \; \widetilde{\mu} \; \widetilde{\mu
                                                                                                                                                                                      c_{\gamma}\,\overline{y_{d}}^{i2s}\,y_{d}^{i1r}\,\overline{a_{d}}^{pr}\,\left(c_{\gamma}\,a_{d}^{\,ps}-s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,ps}\right)\,\mathsf{LF}_{2,1,1,1,-1}\!\left[\mathsf{m}_{\tilde{q}}^{\,\,p}\,,\,\mathsf{m}_{\tilde{d}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{d}}^{\,\,s}\,,\,\widetilde{\mu}\right]\,+\,\mathsf{m}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,r}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{\mu}_{\tilde{q}}^{\,\,s}\,,\,\widetilde{
                                                                                                                                                                                      \textbf{s}_{\gamma}\,\overline{\textbf{y}_{u}}^{\text{i2s}}\,\textbf{y}_{u}^{\text{i1r}}\,\overline{\textbf{a}_{u}}^{\text{pr}}\left(-\,\textbf{s}_{\gamma}\,\,\textbf{a}_{u}^{\text{\,ps}}\,+\,\widetilde{\boldsymbol{\mu}}\,\,\textbf{c}_{\gamma}\,\,\textbf{y}_{u}^{\text{\,ps}}\right)\,\,\textbf{LF}_{\textbf{2,1,1,1,-1}}\!\left[\textbf{m}_{\tilde{\textbf{q}}}^{\text{\,p}},\,\,\textbf{m}_{\tilde{\textbf{u}}}^{\text{\,r}},\,\,\textbf{m}_{\tilde{\textbf{u}}}^{\text{\,s}},\,\,\widetilde{\boldsymbol{\mu}}\right]\,+\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}},\,\,\mathbf{m}_{\tilde{\textbf{q}}}^{\text{\,ps}}
                                                                                                                                                                                          \mathbf{s}_{\mathrm{Y}}\,\widetilde{\boldsymbol{\mu}}\,\overline{\mathbf{y_{d}}}^{\mathrm{rs}}\,\overline{\mathbf{y_{d}}}^{\mathrm{i2p}}\,\,\mathbf{y_{d}}^{\mathrm{i1s}}\,\left(-\,\mathbf{c}_{\mathrm{Y}}\,\,\mathbf{a_{d}}^{\mathrm{rp}}+\,\mathbf{s}_{\mathrm{Y}}\,\widetilde{\boldsymbol{\mu}}\,\,\mathbf{y_{d}}^{\mathrm{rp}}\right)\,\,\mathsf{LF_{2,1,1,1,-1}}\!\left[\boldsymbol{m_{\tilde{q}}}^{\mathrm{r}}\,,\,\,\boldsymbol{m_{\tilde{d}}}^{\mathrm{p}}\,,\,\,\boldsymbol{m_{\tilde{d}}}^{\mathrm{s}}\,,\,\,\widetilde{\boldsymbol{\mu}}\,\right]\,+\,\,\mathsf{LF_{2,1,1,1,-1}}\left[\boldsymbol{m_{\tilde{q}}}^{\mathrm{r}}\,,\,\,\boldsymbol{m_{\tilde{d}}}^{\mathrm{p}}\,,\,\,\boldsymbol{m_{\tilde{d}}}^{\mathrm{s}}\,,\,\,\widetilde{\boldsymbol{\mu}}\,\right]\,+\,\,\mathsf{LF_{2,1,1,1,-1}}\left[\boldsymbol{m_{\tilde{q}}}^{\mathrm{r}}\,,\,\,\boldsymbol{m_{\tilde{d}}}^{\mathrm{p}}\,,\,\,\boldsymbol{m_{\tilde{d}}}^{\mathrm{s}}\,,\,\,\widetilde{\boldsymbol{\mu}}\,\right]\,+\,\,\mathsf{LF_{2,1,1,1,-1}}\left[\boldsymbol{m_{\tilde{q}}}^{\mathrm{r}}\,,\,\,\boldsymbol{m_{\tilde{d}}}^{\mathrm{p}}\,,\,\,\boldsymbol{m_{\tilde{d}}}^{\mathrm{s}}\,,\,\,\boldsymbol{\mu}\,\right]
                                                                                                                                                                                          \tilde{\mu} \; \mathbf{c}_{\gamma} \; \overline{\mathbf{y_u}}^{\mathsf{rs}} \; \overline{\mathbf{y_u}}^{\mathsf{i2p}} \; \mathbf{y_u}^{\mathsf{i1s}} \; \left( \mathbf{s}_{\gamma} \; \mathbf{a_u}^{\mathsf{rp}} - \tilde{\mu} \; \mathbf{c}_{\gamma} \; \mathbf{y_u}^{\mathsf{rp}} \right) \; \mathsf{LF_{2,1,1,1,-1}} \big[ \, \mathbf{m_{\tilde{q}}}^{\mathsf{r}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{s}} \, , \; \tilde{\mu} \, \big] \; - \; \mathsf{LF_{2,1,1,1,-1}} \big[ \, \mathbf{m_{\tilde{q}}}^{\mathsf{r}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{s}} \, , \; \tilde{\mu} \, \big] \; - \; \mathsf{LF_{2,1,1,1,-1}} \big[ \, \mathbf{m_{\tilde{q}}}^{\mathsf{r}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{s}} \, , \; \tilde{\mu} \, \big] \; - \; \mathsf{LF_{2,1,1,1,1,-1}} \big[ \, \mathbf{m_{\tilde{q}}}^{\mathsf{r}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \tilde{\mu} \, \big] \; - \; \mathsf{LF_{2,1,1,1,1,-1}} \big[ \, \mathbf{m_{\tilde{q}}}^{\mathsf{p}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \tilde{\mu} \, \big] \; - \; \mathsf{LF_{2,1,1,1,1,-1}} \big[ \, \mathbf{m_{\tilde{q}}}^{\mathsf{p}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \tilde{\mu} \, \big] \; - \; \mathsf{LF_{2,1,1,1,1,1,-1}} \big[ \, \mathbf{m_{\tilde{q}}}^{\mathsf{p}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \mathbf{m_{\tilde{u}}}^{\mathsf{p}} \, , \; \tilde{\mu}_{\tilde{u}}^{\mathsf{p}} \, , \;
                                                                                                                                               \frac{1}{96} \ g_{1}^{2} \ \overline{y_{d}}^{12p} \ (m_{1} \ c_{\gamma} + s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ a_{d}^{11p} - s_{\gamma} \ \widetilde{\mu} \ y_{d}^{11p}\right) \ LF_{2,1,1,1,1} = \left[m_{\tilde{q}}^{11}, \ m_{1}, \ m_{\tilde{d}}^{p}, \ \widetilde{\mu}\right] - m_{\tilde{q}}^{11} + m_{\tilde{q
                                                                                                                                                                                                       g_{1}^{\ 2} \ \overline{y_{u}}^{i2p} \ (m_{1} \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma}) \ \left(s_{\gamma} \ a_{u}^{\ i1p} - \widetilde{\mu} \ c_{\gamma} \ y_{u}^{\ i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\tilde{q}}^{\ i1}, \ m_{1}, \ m_{\tilde{u}}^{\ p}, \ \widetilde{\mu}\right] - \widetilde{\mu} \left(s_{\gamma} \ a_{u}^{\ i1p} - \widetilde{\mu} \ c_{\gamma} \ y_{u}^{\ i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\tilde{q}}^{\ i1}, \ m_{1}, \ m_{\tilde{u}}^{\ p}, \ \widetilde{\mu}\right] - \widetilde{\mu} \left(s_{\gamma} \ a_{u}^{\ i1p} - \widetilde{\mu} \ c_{\gamma} \ a_{u}^{\ i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\tilde{q}}^{\ i1}, \ m_{1}, \ m_{\tilde{u}}^{\ p}, \ \widetilde{\mu}\right] - \widetilde{\mu} \left(s_{\gamma} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\tilde{q}}^{\ i1}, \ m_{1}, \ m_{\tilde{u}}^{\ p}, \ \widetilde{\mu}\right] - \widetilde{\mu} \left(s_{\gamma} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\tilde{q}}^{\ i1}, \ m_{1}, \ m_{\tilde{u}}^{\ p}, \ \widetilde{\mu}\right] - \widetilde{\mu} \left(s_{\gamma} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\tilde{q}}^{\ i1p}, \ m_{1}, \ m_{\tilde{u}}^{\ i1p}, \ m_{1}, \ m_{\tilde{u}}^{\ i1p}\right] - \widetilde{\mu} \left(s_{\gamma} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\tilde{q}}^{\ i1p}, \ m_{1}, \ m_{1}, \ m_{1}, \ m_{1}^{\ i1p}\right] - \widetilde{\mu} \left(s_{\gamma} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\tilde{q}}^{\ i1p}, \ m_{1}, \ m_{1}, \ m_{1}, \ m_{1}^{\ i1p}\right] - \widetilde{\mu} \left(s_{\gamma} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) \ LF_{2,1,1,1,1} \left[m_{1} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right] - \widetilde{\mu} \left(s_{\alpha} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) \ LF_{2,1,1,1,1} \left[m_{1} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right] + \widetilde{\mu} \left(s_{\alpha} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) \ LF_{2,1,1,1,1} \left[m_{1} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right] + \widetilde{\mu} \left(s_{\alpha} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) \ LF_{2,1,1,1,1} \left[m_{1} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right] + \widetilde{\mu} \left(s_{\alpha} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) + \widetilde{\mu} \left(s_{\alpha} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) + \widetilde{\mu} \left(s_{\alpha} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) + \widetilde{\mu} \left(s_{\alpha} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) + \widetilde{\mu} \left(s_{\alpha} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) + \widetilde{\mu} \left(s_{\alpha} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) + \widetilde{\mu} \left(s_{\alpha} \ a_{u}^{\ i1p} - \widetilde{\mu} \ a_{u}^{\ i1p}\right) + \widetilde{\mu} 
                                                                                                                                           \frac{\text{3}}{\text{32}} \ g_{2}^{2} \ \overline{y_{d}}^{\text{i2p}} \ (\text{m}_{2} \ c_{\gamma} + s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ a_{d}^{\text{i1p}} - s_{\gamma} \ \widetilde{\mu} \ y_{d}^{\text{i1p}}\right) \ \text{LF}_{2,1,1,1,-1} \big[ \ m_{\tilde{q}}^{\text{i1}} \ , \ m_{2} \ , \ m_{\tilde{d}}^{\text{p}} \ , \ \widetilde{\mu} \, \big] + \frac{1}{2} \left(c_{\gamma} \ a_{d}^{\text{i1p}} - a_{\gamma} \ \widetilde{\mu} \ a_{d}^{\text{i1p}} - a_{\gamma} \ \widetilde{\mu} \ a_{d}^{\text{i1p}} \right) \ \text{LF}_{2,1,1,1,-1} \left[ \ m_{\tilde{q}}^{\text{i1}} \ , \ m_{2} \ , \ m_{\tilde{d}}^{\text{p}} \ , \ \widetilde{\mu} \, \right] + \frac{1}{2} \left(c_{\gamma} \ a_{d}^{\text{i1p}} - a_{\gamma} \ \widetilde{\mu} \ a_{d}^{\text{i1p}} - a_{\gamma} \ \widetilde{\mu} \ a_{d}^{\text{i1p}} \right) \ \text{LF}_{2,1,1,1,-1} \left[ \ m_{\tilde{q}}^{\text{i1p}} \ , \ m_{2} \ , \ m_{\tilde{d}}^{\text{p}} \ , \ \widetilde{\mu} \, \right] + \frac{1}{2} \left(c_{\gamma} \ a_{d}^{\text{i1p}} - a_{d}^{\text{i1p}} - a_{\gamma} \ \widetilde{\mu} \ a_{d}^{\text{i1p}} \right) \ \text{LF}_{2,1,1,1,-1} \left[ \ m_{\tilde{q}}^{\text{i1p}} \ , \ m_{2} \ , \ m_{\tilde{d}}^{\text{p}} \ , \ \widetilde{\mu} \, \right] + \frac{1}{2} \left(c_{\gamma} \ a_{d}^{\text{i1p}} - a_{d}^{\text
                                                                                                                                                                                                       g_{2}^{2} \, \overline{y_{u}}^{i2p} \, \left( \, m_{2} \, s_{\gamma} + \widetilde{\mu} \, c_{\gamma} \, \right) \, \left( \, s_{\gamma} \, a_{u}^{\, \, i1p} - \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} \right) \, \mathsf{LF}_{2,1,1,1,-1} \! \left[ \, m_{\tilde{q}}^{\, \, i1} \, , \, m_{2} \, , \, m_{\tilde{u}}^{\, \, p} \, , \, \widetilde{\mu} \, \right] \, - \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, \, i1p} + \, \widetilde{\mu} \, c_{\gamma} \, y_
                                                                                                                                                                                                       {g_{1}}^{2}\;{y_{d}}^{i1p}\;\left(m_{1}\;c_{\gamma}+s_{\gamma}\;\widetilde{\mu}\right)\;\left(c_{\gamma}\;\overline{a_{d}}^{i2p}-s_{\gamma}\;\widetilde{\mu}\;\overline{y_{d}}^{i2p}\right)\;\mathsf{LF}_{2,1,1,1,-1}\!\left[m_{\tilde{q}}^{\;\;i2},\;m_{1},\;m_{\tilde{d}}^{\;\;p},\;\widetilde{\mu}\right]-m_{\tilde{q}}^{\;\;i2}
                                                                                                                                                                                                       g_{1}^{2} y_{u}^{\text{ilp}} \ (\text{m}_{1} \, \text{s}_{\gamma} + \widetilde{\mu} \, \text{c}_{\gamma}) \ \left(\text{s}_{\gamma} \, \overline{a_{u}}^{\text{i}2p} - \widetilde{\mu} \, \text{c}_{\gamma} \, \overline{y_{u}}^{\text{i}2p}\right) \ \text{LF}_{2,1,1,1,-1} \! \left[\text{m}_{\tilde{q}}^{\text{i}2}, \, \text{m}_{1}, \, \text{m}_{\tilde{u}}^{\text{p}}, \, \widetilde{\mu}\right] - \widetilde{\mu} \, \text{m}_{1}^{\text{i}2p} + \widetilde{\mu} \, \text{m}_{2}^{\text{i}2p} + \widetilde{\mu}
                                                                                                                                                                                                       {g_2}^2 \; {y_d}^{i1p} \; \left( m_2 \; c_{_Y} + s_{_Y} \, \widetilde{\mu} \right) \; \left( c_{_Y} \; \overline{a_d}^{i2p} - s_{_Y} \, \widetilde{\mu} \; \overline{y_d}^{i2p} \right) \; \mathsf{LF}_{2,1,1,1,-1} \! \left[ m_{\tilde{q}}^{\;\; i2} \, , \; m_2 \, , \; m_{\tilde{d}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; i2} \, , \; m_2 \, , \; m_{\tilde{d}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; i2} \, , \; m_2 \, , \; m_{\tilde{d}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; i2} \, , \; m_2 \, , \; m_{\tilde{d}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; i2} \, , \; m_2 \, , \; m_{\tilde{d}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; i2} \, , \; m_2 \, , \; m_{\tilde{d}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; i2} \, , \; m_2 \, , \; m_{\tilde{d}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; i2} \, , \; m_2 \, , \; m_{\tilde{d}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; i2} \, , \; m_2 \, , \; m_{\tilde{d}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; i2} \, , \; m_2 \, , \; m_{\tilde{d}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; i2} \, , \; m_2 \, , \; m_{\tilde{d}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; m_2 \, , \; m_{\tilde{d}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; m_2 \, , \; m_2 \, , \; m_2 \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; m_2 \, , \; m_2 \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; m_2 \, , \; m_2 \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; m_2 \, , \; m_2 \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1,1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; + \; \mathsf{LF}_{2,1} \left[ m_{\tilde{q}}^{\;\; p} \, , \; \widetilde{\mu} \right] \; 
                                                                                                                                                                                                       g_{2}{}^{2}\;y_{u}{}^{i1p}\;\left(m_{2}\;s_{\gamma}+\widetilde{\mu}\;c_{\gamma}\right)\;\left(s_{\gamma}\;\overline{a_{u}}{}^{i2p}-\widetilde{\mu}\;c_{\gamma}\;\overline{y_{u}}{}^{i2p}\right)\;\mathsf{LF}_{2,1,1,1,-1}\!\left[m_{\tilde{q}}{}^{i2}\;,\;m_{2}\;,\;m_{\tilde{u}}{}^{p}\;,\;\widetilde{\mu}\right]\;+
                                                                                                                                               \frac{1}{96} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{i2p} \ (m_{1} \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma}) \ \left(s_{\gamma} \ a_{u}{}^{i1p} - \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\widetilde{u}}{}^{p}, \ m_{1}, \ m_{\widetilde{q}}{}^{i1}, \ \widetilde{\mu}\right] + C_{2} \ (m_{1} \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma}) \ \left(s_{\gamma} \ a_{u}{}^{i1p} - \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\widetilde{u}}{}^{p}, \ m_{1}, \ m_{\widetilde{q}}{}^{i1}, \ \widetilde{\mu}\right] + C_{2} \ (m_{1} \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma}) \ \left(s_{\gamma} \ a_{u}{}^{i1p} - \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\widetilde{u}}{}^{p}, \ m_{1}, \ m_{\widetilde{q}}{}^{i1}, \ \widetilde{\mu}\right] + C_{2} \ (m_{1} \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma}) \ \left(s_{\gamma} \ a_{u}{}^{i1p} - \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\widetilde{u}}{}^{p}, \ m_{1}, \ m_{\widetilde{q}}{}^{i1}, \ \widetilde{\mu}\right] + C_{2} \ (m_{1} \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma}) \ \left(s_{\gamma} \ a_{u}{}^{i1p} - \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{i1p}\right) \ LF_{2,1,1,1,-1} \left[m_{\widetilde{u}}{}^{p}, \ m_{1}, \ m_{\widetilde{q}}{}^{i1}, \ \widetilde{\mu}\right] + C_{2} \ (m_{1} \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma}) \ \left(s_{\gamma} \ a_{u}{}^{i1p} - \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{i1p}\right) \ LF_{2,1,1,1,1} \left[m_{\widetilde{u}}{}^{p}, \ m_{1}, \ m_{2} \
                                                                                                                                               \frac{1}{144} \ g_1^2 \ \left( s_Y \ \overline{a_u}^{i2p} - \widetilde{\mu} \ c_Y \ \overline{y_u}^{i2p} \right) \ \left( s_Y \ a_u^{i1p} - \widetilde{\mu} \ c_Y \ y_u^{i1p} \right) \ \mathsf{LF}_{2,1,1,1,-1} \left[ \ \mathsf{m_{\tilde{u}}}^p, \ \mathsf{m_1}, \ \mathsf{m_{\tilde{q}}}^{i2}, \ \mathsf{m_{\tilde{q}}}^{i1} \right] + c_Y \ \mathsf{m_{\tilde{q}}}^{i1} + c_
                                                                                                                                           \frac{1}{96} \ g_{1}^{\ 2} \ y_{u}^{\ i1p} \ (m_{1} \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma}) \ \left(s_{\gamma} \ \overline{a_{u}^{\ i2p}} - \widetilde{\mu} \ c_{\gamma} \ \overline{y_{u}^{\ i2p}}\right) \ \mathsf{LF}_{2,1,1,1,-1} \! \left[m_{\tilde{u}}^{\ p}, \ m_{1}, \ m_{\tilde{q}}^{\ i2}, \ \widetilde{\mu}\right] - m_{\tilde{q}}^{\ i2} + \widetilde{\mu} \ c_{\gamma} \ \overline{y_{u}^{\ i2p}} + m_{\tilde{q}}^{\ i2p} + m_{\tilde{q}}
                                                                                                                                                                                                       g_{2}^{2} \, \overline{y_{u}}^{i2p} \, \left( \, m_{2} \, s_{\gamma} + \widetilde{\mu} \, c_{\gamma} \, \right) \, \left( \, s_{\gamma} \, a_{u}^{\, \, i1p} - \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} \right) \, \mathsf{LF}_{2,1,1,1,-1} \! \left[ \, m_{\tilde{u}}^{\, \, p} \, , \, m_{2} \, , \, m_{\tilde{q}}^{\, \, i1} \, , \, \widetilde{\mu} \, \right] \, + \, c_{\gamma} \, ( \, m_{2} \, s_{\gamma} + \widetilde{\mu} \, c_{\gamma} \, ) \, \left( \, s_{\gamma} \, a_{u}^{\, \, i1p} - \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} \right) \, \mathsf{LF}_{2,1,1,1,-1} \! \left[ \, m_{\tilde{u}}^{\, \, p} \, , \, m_{2} \, , \, m_{\tilde{q}}^{\, \, i1} \, , \, \widetilde{\mu} \, \right] \, + \, c_{\gamma} \, ( \, m_{2} \, s_{\gamma} + \widetilde{\mu} \, c_{\gamma} \, ) \, \left( \, s_{\gamma} \, a_{u}^{\, \, i1p} - \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\, \, i1p} \, \right) \, \mathsf{LF}_{2,1,1,1,-1} \! \left[ \, m_{\tilde{u}}^{\, \, p} \, , \, m_{2} \, , \, m_{\tilde{q}}^{\, \, i1} \, , \, \widetilde{\mu} \, \right] \, + \, c_{\gamma} \, ( \, m_{2} \, s_{\gamma} + \widetilde{\mu} \, c_{\gamma} \, ) \, \left( \, s_{\gamma} \, a_{u}^{\, \, i1p} - \widetilde{\mu} \, c_{\gamma} \, , \, m_{\alpha}^{\, \, i1p} \, , \, m
                                                                                                                                                                                                       g_{2}^{2} \, \left( \, s_{_{Y}} \, \overline{a_{u}}^{i2p} \, - \, \widetilde{\mu} \, \, c_{_{Y}} \, \overline{y_{u}}^{i2p} \right) \, \left( \, s_{_{Y}} \, a_{u}^{\, \, i1p} \, - \, \widetilde{\mu} \, \, c_{_{Y}} \, y_{u}^{\, \, i1p} \right) \, LF_{2,1,1,1,-1} \big[ \, m_{\tilde{u}}^{\, \, p} \, , \, \, m_{\tilde{q}}^{\, \, i2} \, , \, \, m_{\tilde{q}}^{\, \, i1} \, \big] \, - \, \widetilde{\mu} \, c_{_{Y}} \, y_{u}^{\, \, i1p} \, \right] \, .
                                                                                                                                                                                                       g_{2}^{2} y_{u}^{i1p} \left( m_{2} s_{\gamma} + \widetilde{\mu} c_{\gamma} \right) \left( s_{\gamma} \overline{a_{u}}^{i2p} - \widetilde{\mu} c_{\gamma} \overline{y_{u}}^{i2p} \right) LF_{2,1,1,1,-1} \left[ m_{\widetilde{u}}^{p}, m_{2}, m_{\widetilde{q}}^{i2}, \widetilde{\mu} \right] + C \left[ m_{\widetilde{u}}^{p}, m_{2}, m_{2}, \widetilde{\mu} \right] + C \left[ m_{\widetilde{u}}^{p}, m_{2}, m_{2}, \widetilde{\mu} \right] + C \left[ m_{\widetilde{u}}^{p}, m_{2}, m_{2}, \widetilde{\mu} \right] + C \left[ m_{\widetilde{u}}^{p}, \widetilde{\mu} \right] + C \left[ m_{\widetilde{u}}^{p}, m_{2}, \widetilde{\mu} \right] + C \left[ m_{\widetilde{u}}^{p}, \widetilde{\mu} \right] + C \left[ m_{\widetilde{
                                                                                                                                                                                      g_{3}^{2}\left(s_{\gamma}\,\overline{a_{u}}^{i2p}-\widetilde{\mu}\,c_{\gamma}\,\overline{y_{u}}^{i2p}\right)\,\left(s_{\gamma}\,a_{u}^{\,\,i1p}-\widetilde{\mu}\,c_{\gamma}\,y_{u}^{\,\,i1p}\right)\,LF_{2,1,1,1,-1}\!\left[m_{\tilde{u}}^{\,\,p},\,m_{3},\,m_{\tilde{q}}^{\,\,i2},\,m_{\tilde{q}}^{\,\,i1}\right]+c_{1}^{2}\left(s_{\gamma}^{\,\,2}\,a_{u}^{\,\,2p}+\widetilde{\mu}^{\,\,2p}\right)\,\left(s_{\gamma}^{\,\,2}\,a_{u}^{\,\,2p}+\widetilde{\mu}^{\,\,2p}\right)\,ds
                                                                                                                                                                                                       g_{1}{}^{2}\;\overline{y_{d}}{}^{i2p}\;\left(m_{1}\;c_{\gamma}+s_{\gamma}\;\widetilde{\mu}\right)\;\left(c_{\gamma}\;a_{d}{}^{i1p}-s_{\gamma}\;\widetilde{\mu}\;y_{d}{}^{i1p}\right)\;\mathsf{LF}_{2,1,1,1,-1}\!\left[\,\widetilde{\mu}\,,\;m_{1}\,,\;m_{\tilde{d}}^{\;p}\,,\;m_{\tilde{q}}^{\;p}\right]
                                                                                                                                               \frac{1}{96}~g_{1}^{~2}~y_{d}^{~i1p}~(m_{1}~c_{\gamma}+s_{\gamma}~\widetilde{\mu})~\left(c_{\gamma}~\overline{a_{d}}^{i2p}-s_{\gamma}~\widetilde{\mu}~\overline{y_{d}}^{i2p}\right)~LF_{2,1,1,1,-1}\big[\widetilde{\mu}\,,~m_{1}\,,~m_{\overset{-}{d}}^{~p}\,,~m_{\overset{-}{q}}^{~p}
                                                                                                                                                                                                       \frac{1}{96} \ g_1^{\ 2} \ y_u^{\ i1p} \ (m_1 \ s_\gamma + \widetilde{\mu} \ c_\gamma) \ \left(s_\gamma \ \overline{a_u}^{\ i2p} - \widetilde{\mu} \ c_\gamma \ \overline{y_u}^{\ i2p}\right) \ \mathsf{LF}_{2,1,1,1,-1} \big[\widetilde{\mu} \ , \ m_1 \ , \ m_{\widetilde{q}}^{\ i2} \ , \ m_{\widetilde{u}}^{\ p} \big] \ + \\
                                                                                                                                                                                                            g_{2}{}^{2}\,\overline{y_{d}}{}^{i2p}\,\left(m_{2}\,\,c_{_{Y}}\,+\,s_{_{Y}}\,\widetilde{\mu}\right)\,\,\left(c_{_{Y}}\,a_{d}{}^{i1p}\,-\,s_{_{Y}}\,\widetilde{\mu}\,\,y_{d}{}^{i1p}\right)\,\,\mathsf{LF}_{2,1,1,1,-1}\!\left[\widetilde{\mu}\,,\,m_{2}\,,\,m_{\tilde{d}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p}\,,\,m_{\tilde{q}}{}^{p
                                                                                                                                                                                                            g_{2}{}^{2}\;y_{d}{}^{i1p}\;\left(m_{2}\;c_{\gamma}+s_{\gamma}\;\widetilde{\mu}\right)\;\left(c_{\gamma}\;\overline{a_{d}}{}^{i2p}-s_{\gamma}\;\widetilde{\mu}\;\overline{y_{d}}{}^{i2p}\right)\;\mathsf{LF}_{2,1,1,1,-1}\!\left[\widetilde{\mu}\,,\;m_{2}\,,\;m_{\widetilde{d}}^{\;\;p}\,,\;m_{\widetilde{q}}^{\;\;p}\right]
                                                                                                                                                                                                            g_{2}^{2}\,\overline{y_{u}}^{\text{i2p}}\,\left(\text{m}_{2}\,\,\text{s}_{\gamma}+\widetilde{\mu}\,\,\text{c}_{\gamma}\right)\,\left(\text{s}_{\gamma}\,\,\text{a}_{u}^{\,\,\text{i1p}}-\widetilde{\mu}\,\,\text{c}_{\gamma}\,\,\text{y}_{u}^{\,\,\text{i1p}}\right)\,\text{LF}_{\text{2,1,1,1,-1}}\!\left[\widetilde{\mu}\,,\,\,\text{m}_{2}\,,\,\,\text{m}_{\tilde{q}}^{\,\,\text{i1}}\,,\,\,\text{m}_{\tilde{u}}^{\,\,\text{p}}\right]-\widetilde{\mu}\,\,\text{m}_{\tilde{q}}^{\,\,\text{i2p}}\left(\text{m}_{2}\,\,\text{s}_{\gamma}+\widetilde{\mu}\,\,\text{c}_{\gamma}\right)
                                                                                                                                                                                                            g_2^2 \; y_u^{\; \text{ilp}} \; \left( \text{m}_2 \; \text{s}_{\gamma} + \widetilde{\mu} \; \text{c}_{\gamma} \right) \; \left( \text{s}_{\gamma} \; \overline{\text{a}_u^{\; \text{i}2p}} - \widetilde{\mu} \; \text{c}_{\gamma} \; \overline{\text{y}_u^{\; \text{i}2p}} \right) \; \text{LF}_{2,1,1,1,-1} \! \left[ \widetilde{\mu} \,, \; \text{m}_2 \,, \; \text{m}_{\tilde{\textbf{q}}}^{\; \text{i}2} \,, \; \text{m}_{\tilde{\textbf{u}}}^{\; \text{p}} \right] \right)
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