```
C_{\mathsf{Hu}}^{\mathsf{il}_{\mathsf{-i2}}} \to \hbar \left( -\frac{\mathsf{1}}{\mathsf{216}} \ \frac{\mathsf{1}}{\mathsf{m_{\mathfrak{p}}}^2} \right)
                                                                                                                                                                                                                                  \left(18\; {s_{_{Y}}}^{2}\; \overline{y_{d}}^{pr}\; y_{d}^{\; sr}\; \overline{y_{u}}^{si1}\; y_{u}^{\; pi2}\; \left(6\; {c_{_{Y}}}^{2}\; +\; {s_{_{Y}}}^{2}\right)\; +\; {c_{_{Y}}}^{2}\; \overline{y_{u}}^{pi1}\; \left(7\; {g_{1}}^{2}\; y_{u}^{\; pi2}\; +\; 18\; {s_{_{Y}}}^{2}\; \overline{y_{u}}^{rs}\; y_{u}^{\; ps}\; y_{u}^{\; ri2}\right)\right)\; +\; {c_{_{Y}}}^{2}\; \overline{y_{u}}^{pi1}\; \left(7\; {g_{1}}^{2}\; y_{u}^{\; pi2}\; +\; 18\; {s_{_{Y}}}^{2}\; \overline{y_{u}}^{rs}\; y_{u}^{\; ps}\; y_{u}^{\; ri2}\right)\right)\; +\; {c_{_{Y}}}^{2}\; \overline{y_{u}}^{pi1}\; \left(7\; {g_{1}}^{2}\; y_{u}^{\; pi2}\; +\; 18\; {s_{_{Y}}}^{2}\; \overline{y_{u}}^{rs}\; y_{u}^{\; ps}\; y_{u}^{\; ri2}\right)\right)\; +\; {c_{_{Y}}}^{2}\; \overline{y_{u}}^{pi1}\; \left(7\; {g_{1}}^{2}\; y_{u}^{\; pi2}\; +\; 18\; {s_{_{Y}}}^{2}\; \overline{y_{u}}^{rs}\; y_{u}^{\; ps}\; y_{u}^{\; pi2}\right)\; +\; {c_{_{Y}}}^{2}\; \overline{y_{u}}^{pi1}\; \left(7\; {g_{1}}^{2}\; y_{u}^{\; pi2}\; +\; 18\; {s_{_{Y}}}^{2}\; \overline{y_{u}}^{rs}\; y_{u}^{\; ps}\; y_{u}^{\; pi2}\right)\; +\; {c_{_{Y}}}^{2}\; \overline{y_{u}}^{pi2}\; +\; {
                                                                                                                                                \frac{4}{81} \, \sum_{p} \, {g_{1}}^{4} \, LF_{3,0} \left[ \, m_{d}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, - \, \frac{5}{54} \, \sum_{p} \, {g_{1}}^{4} \, LF_{4,-1} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, + \, \frac{16}{405} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{4} \, LF_{5,-2} \left[ \, m_{\dot{d}}^{\, .p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{\, .p} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{\, .p} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{\, .p} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{\, .p} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{\, .p} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{\, .p} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{\, .p} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, + \, \frac{1}{400} \, \sum_{p} \, {g_{1}}^{\, .p} \, \delta_{\dot{1}\dot{1}\dot
                                                                                                                                                    \frac{4}{27} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{3,0} \left[ \mathsf{m}_{\bar{e}}{}^{p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} - \frac{5}{18} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{e}}{}^{p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} + \frac{16}{135} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{e}}{}^{p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{12} \left[ \mathsf{m}_{\bar{e}}{}^{p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} + 
                                                                                                                                                    \frac{2}{27} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{3,0} \left[ \mathsf{m}_{\bar{l}}^{\; p} \right] \; \delta_{\mathsf{11i2}} - \frac{5}{36} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{l}}^{\; p} \right] \; \delta_{\mathsf{11i2}} + \frac{8}{135} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{l}}^{\; p} \right] \; \delta_{\mathsf{11i2}} + \frac{1}{125} \left[ \mathsf{m}_{\mathsf{11i2}} \right] \; \delta_
                                                                                                                                                                                                               \sum_{p} g_{1}^{4} LF_{3,0} \left[ m_{\tilde{q}}^{p} \right] \delta_{1112} - \frac{5}{108} \sum_{p} g_{1}^{4} LF_{4,-1} \left[ m_{\tilde{q}}^{p} \right] \delta_{1112} + \frac{8}{405} \sum_{p} g_{1}^{4} LF_{5,-2} \left[ m_{\tilde{q}}^{p} \right] \delta_{1112} + \frac{1}{100} \delta_{1112} + \frac{1}{100}
                                                                                                                                                    \frac{16}{81} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{3,0} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} - \frac{10}{27} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} + \frac{64}{405} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} + \frac{64}{405} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} + \frac{64}{405} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} + \frac{64}{405} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} + \frac{64}{405} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{1}\dot{1}\dot{2}} + \frac{64}{405} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1}{}^{4} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1}{}^{2} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1} \; \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\bar{\mathsf{u}}}{}^{p} \right] \; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}} + \frac{64}{405} \sum_{p} g_{1} \; \mathsf{LF
                                                                                                                                                    \frac{1}{18} \left(9 \; {c_{\gamma}}^4 \; \overline{y_d}^{\text{pr}} \; y_d^{\text{sr}} \; \overline{y_u}^{\text{sil}} \; y_u^{\text{pi2}} - {c_{\gamma}}^2 \; \overline{y_u}^{\text{pi1}} \; \left(g_1^2 \; y_u^{\text{pi2}} + 9 \; s_{\gamma}^2 \; \overline{y_u}^{\text{rs}} \; y_u^{\text{ps}} \; y_u^{\text{ri2}}\right)\right) \; \text{LF}_{1,2} \left[m_{_{\! \oplus}}\right] \; - \left(g_1^2 \; y_u^{\text{pi2}} + 9 \; s_{\gamma}^2 \; \overline{y_u}^{\text{rs}} \; y_u^{\text{ps}} \; y_u^{\text{ri2}}\right) + \left(g_1^2 \; y_u^{\text{pi2}} + 9 \; s_{\gamma}^2 \; \overline{y_u}^{\text{rs}} \; y_u^{\text{ps}} \; y_u^{\text{ri2}}\right)\right) \; \text{LF}_{1,2} \left[m_{_{\! \oplus}}\right] \; - \left(g_1^2 \; y_u^{\text{pi2}} + 9 \; s_{\gamma}^2 \; \overline{y_u}^{\text{rs}} \; y_u^{\text{ps}} \; y_u^{\text{ri2}}\right) + \left(g_1^2 \; y_u^{\text{ps}} + 9 \; s_{\gamma}^2 \; \overline{y_u}^{\text{rs}} \; y_u^{\text{ps}} \; y_u^{\text{ri2}}\right) \; + \left(g_1^2 \; y_u^{\text{ps}} + 9 \; s_{\gamma}^2 \; \overline{y_u}^{\text{rs}} \; y_u^{\text{rs}} \; y_u^{\text{rs}} \; y_u^{\text{rs}}\right) \; + \left(g_1^2 \; y_u^{\text{rs}} + 9 \; s_{\gamma}^2 \; \overline{y_u^{\text{rs}}} \; y_u^{\text{rs}} \; y_u^{\text{rs}} \; y_u^{\text{rs}}\right) \; + \left(g_1^2 \; y_u^{\text{rs}} + 9 \; s_{\gamma}^2 \; \overline{y_u^{\text{rs}}} \; y_u^{\text{rs}} \; y_u^{\text{rs}} \; y_u^{\text{rs}}\right) \; + \left(g_1^2 \; y_u^{\text{rs}} + 9 \; s_{\gamma}^2 \; \overline{y_u^{\text{rs}}} \; y_u^{\text{rs}} \; y_u^{\text{rs}} \; y_u^{\text{rs}} \; y_u^{\text{rs}} \; y_u^{\text{rs}}\right) \; + \left(g_1^2 \; y_u^{\text{rs}} + 9 \; s_{\gamma}^2 \; \overline{y_u^{\text{rs}}} \; y_u^{\text{rs}} \; y_u^{\text{rs}} \; y_u^{\text{rs}} \; y_u^{\text{rs}}\right) \; + \left(g_1^2 \; y_u^{\text{rs}} + 9 \; s_{\gamma}^2 \; \overline{y_u^{\text{rs}}} \; y_u^{\text{rs}} \; y_u^{\text{
                                                                                                                                                    \frac{1}{12} \ g_1^2 \ c_\gamma^2 \ \overline{y_u^{\text{pil}}} \ y_u^{\text{pil}} \ y_u^{\text{pil}} \ \mathsf{LF}_{2,1} [\, \mathsf{m}_{\scriptscriptstyle{\oplus}}\,] \ + \\ \frac{1}{108} \ g_1^2 \ \left( 9 \ c_\gamma^2 \ \overline{y_u^{\text{pil}}} \ y_u^{\text{pil}} + 8 \ g_1^2 \ \delta_{\text{ili2}} \right) \ \mathsf{LF}_{3,0} [\, \mathsf{m}_{\scriptscriptstyle{\oplus}}\,] \ - \\ \frac{1}{108} \ g_1^2 \ c_\gamma^2 \ \overline{y_u^{\text{pil}}} \ y_u^{\text{pil}} + 8 \ g_1^2 \ \delta_{\text{ili2}} \right) \ \mathsf{LF}_{3,0} [\, \mathsf{m}_{\scriptscriptstyle{\oplus}}\,] \ - \\ \frac{1}{108} \ g_1^2 \ c_\gamma^2 \ \overline{y_u^{\text{pil}}} \ y_u^{\text{pil}} + 8 \ g_1^2 \ \delta_{\text{ili2}} \right) \ \mathsf{LF}_{3,0} [\, \mathsf{m}_{\scriptscriptstyle{\oplus}}\,] \ - \\ \frac{1}{108} \ g_1^2 \ c_\gamma^2 \ \overline{y_u^{\text{pil}}} \ y_u^{\text{pil}} + 8 \ g_1^2 \ \delta_{\text{ili2}} \right) \ \mathsf{LF}_{3,0} [\, \mathsf{m}_{\scriptscriptstyle{\oplus}}\,] \ - \\ \frac{1}{108} \ g_1^2 \ c_\gamma^2 \ \overline{y_u^{\text{pil}}} \ y_u^{\text{pil}} + 8 \ g_1^2 \ \delta_{\text{ili2}} \right) \ \mathsf{LF}_{3,0} [\, \mathsf{m}_{\scriptscriptstyle{\oplus}}\,] \ - \\ \frac{1}{108} \ g_1^2 \ c_\gamma^2 \ \overline{y_u^{\text{pil}}} \ y_u^{\text{pil}} + 8 \ g_1^2 \ \delta_{\text{ili2}} \right) \ \mathsf{LF}_{3,0} [\, \mathsf{m}_{\scriptscriptstyle{\oplus}}\,] \ - \\ \frac{1}{108} \ g_1^2 \ c_\gamma^2 \ \overline{y_u^{\text{pil}}} \ y_u^{\text{pil}} + 8 \ g_1^2 \ \delta_{\text{ili2}} \right) \ \mathsf{LF}_{3,0} [\, \mathsf{m}_{\scriptscriptstyle{\oplus}}\,] \ + \\ \frac{1}{108} \ g_1^2 \ c_\gamma^2 \ \overline{y_u^{\text{pil}}} \ y_u^{\text{pil}} + 8 \ g_1^2 \ \delta_{\text{ili2}} \right) \ \mathsf{LF}_{3,0} [\, \mathsf{m}_{\scriptscriptstyle{\oplus}}\,] \ + \\ \frac{1}{108} \ g_1^2 \ c_\gamma^2 \ \overline{y_u^{\text{pil}}} \ y_u^{\text{pil}} + 8 \ g_1^2 \ \delta_{\text{ili2}} \ y_u^{\text{pil}} + 8 \ g
                                                                                                                                                    \frac{5}{36} \ g_1^{\ 4} \ \mathsf{LF_{4,-1}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{8}{135} \ g_1^{\ 4} \ \mathsf{LF_{5,-2}} [ \ \mathsf{m_{\oplus}} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{2}{27} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}} + \frac{1}{2} \ g_1^{\ 4} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{2} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}} + \frac{1}{2} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}} + \frac{1}{2} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{1}{2} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}} + \frac{1}{2} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}} + \frac{1}{2} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}\dot{1}} + \frac{1}{2} \ \mathsf{LF_{3,0}} [ \ \widetilde{\mu} ] \ \delta_{\dot{1}\dot{1}} + \frac{1}{2} \ \mathsf{LF_{
                                                                                                                                                                                           g_{1}{}^{4} \; \mathsf{LF_{4,-1}} [\, \tilde{\mu} \,] \; \; \delta_{\text{ili2}} - \frac{16}{135} \; g_{1}{}^{4} \; \mathsf{LF_{5,-2}} [\, \tilde{\mu} \,] \; \; \delta_{\text{ili2}} + \frac{1}{36} \; g_{1}{}^{2} \; s_{\gamma}{}^{2} \; \overline{y_{u}}{}^{\text{pil}} \; y_{u}{}^{\text{pi2}} \; \mathsf{LF_{2,1,0}} \big[\, m_{1} \,, \; m_{\tilde{q}}^{-\tilde{p}} \,] \; - \frac{1}{36} \; g_{1}{}^{2} \; s_{\gamma}{}^{2} \; \overline{y_{u}}{}^{\text{pil}} \; y_{u}{}^{\text{pi2}} \; \mathsf{LF_{2,1,0}} \big[\, m_{1} \,, \; m_{\tilde{q}}^{-\tilde{p}} \,] \; - \frac{1}{36} \; g_{1}{}^{2} \; s_{\gamma}{}^{2} \; \overline{y_{u}}{}^{\text{pi1}} \; y_{u}{}^{\text{pi2}} \; \mathsf{LF_{2,1,0}} \big[\, m_{1} \,, \; m_{\tilde{q}}^{-\tilde{p}} \,] \; - \frac{1}{36} \; g_{1}{}^{2} \; s_{\gamma}{}^{2} \; \overline{y_{u}}{}^{\text{pi1}} \; y_{u}{}^{\text{pi2}} \; \mathsf{LF_{2,1,0}} \big[\, m_{1} \,, \; m_{\tilde{q}}^{-\tilde{p}} \,] \; - \frac{1}{36} \; g_{1}{}^{2} \; s_{\gamma}{}^{2} \; \overline{y_{u}}{}^{\text{pi1}} \; y_{u}{}^{\text{pi2}} \; \mathsf{LF_{2,1,0}} \big[\, m_{1} \,, \; m_{\tilde{q}}^{-\tilde{p}} \,] \; - \frac{1}{36} \; g_{1}{}^{2} \; s_{\gamma}{}^{2} \; \overline{y_{u}}{}^{\text{pi1}} \; y_{u}{}^{\text{pi2}} \; \mathsf{LF_{2,1,0}} \big[\, m_{1} \,, \; m_{\tilde{q}}^{-\tilde{p}} \,] \; - \frac{1}{36} \; g_{1}{}^{2} \; s_{\gamma}{}^{2} \; \overline{y_{u}}{}^{\text{pi2}} \; s_{\gamma}{}^{\text{pi2}} \; s_{\gamma}{}^
                                                                                                                                                \frac{1}{18} \ g_1{}^2 \ s_\gamma{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pil}} \ LF_{3,1,-1} \big[ \ m_1 \, , \ m_{\bar{q}}{}^{\text{p}} \big] \ + \ \frac{1}{36} \ g_1{}^2 \ s_\gamma{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pil}} \ LF_{4,1,-2} \big[ \ m_1 \, , \ m_{\bar{q}}{}^{\text{p}} \big] \ + \ \frac{1}{36} \ g_1{}^2 \ s_\gamma{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pil}} \ LF_{4,1,-2} \big[ \ m_1 \, , \ m_{\bar{q}}{}^{\text{p}} \big] \ + \ \frac{1}{36} \ g_1{}^2 \ s_\gamma{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pil}} \ y_u{}^{\text{pil}} \ LF_{4,1,-2} \big[ \ m_1 \, , \ m_{\bar{q}}{}^{\text{p}} \big] \ + \ \frac{1}{36} \ g_1{}^2 \ s_\gamma{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pil}} \ y_u{}^{\text{
                                                                                                                                                \frac{8}{81}\; {\rm g_1}^4\; {\rm LF_{3,1,-1}} \big[\, {\rm m_1},\; {\rm m_{\tilde{u}}}^{\dot{1}\, 2} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{4}{81}\; {\rm g_1}^4\; {\rm LF_{4,1,-2}} \big[\, {\rm m_1},\; {\rm m_{\tilde{u}}}^{\dot{1}\, 2} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{4}{81}\; {\rm g_1}^4 \; {\rm LF_{4,1,-2}} \big[\, {\rm m_1},\; {\rm m_{\tilde{u}}}^{\dot{1}\, 2} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{4}{81}\; {\rm g_1}^4 \; {\rm LF_{4,1,-2}} \big[\, {\rm m_1},\; {\rm m_{\tilde{u}}}^{\dot{1}\, 2} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{4}{81}\; {\rm g_1}^4 \; {\rm LF_{4,1,-2}} \big[\, {\rm m_1},\; {\rm m_{\tilde{u}}}^{\dot{1}\, 2} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{4}{81}\; {\rm g_1}^4 \; {\rm LF_{4,1,-2}} \big[\, {\rm m_1},\; {\rm m_{\tilde{u}}}^{\dot{1}\, 2} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{4}{81}\; {\rm g_1}^4 \; {\rm LF_{4,1,-2}} \big[\, {\rm m_1},\; {\rm m_{\tilde{u}}}^{\dot{1}\, 2} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{4}{81}\; {\rm g_1}^4 \; {\rm LF_{4,1,-2}} \big[\, {\rm m_1},\; {\rm m_{\tilde{u}}}^{\dot{1}\, 2} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{4}{81}\; {\rm g_1}^4 \; {\rm LF_{4,1,-2}} \big[\, {\rm m_1},\; {\rm m_{\tilde{u}}}^{\dot{1}\, 2} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{4}{81}\; {\rm g_1}^4 \; {\rm LF_{4,1,-2}} \big[\, {\rm m_1},\; {\rm m_{\tilde{u}}}^{\dot{1}\, 2} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{4}{81}\; {\rm m_1}^2 \; {\rm m_1}^2 \, {\rm m_2}^2 \, {\rm m_
                                                                                                                                                \frac{3}{4} \ g_2{}^2 \ s_\gamma{}^2 \ \overline{y_u}^{\text{pil}} \ y_u{}^{\text{pil}} \ y_u{}^{\text{pil}} \ LF_{2,1,0} \big[ \, m_2 \, , \ m_{\tilde{q}}{}^{\text{p}} \big] \ - \frac{3}{2} \ g_2{}^2 \ s_\gamma{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pil}} \ LF_{3,1,-1} \big[ \, m_2 \, , \ m_{\tilde{q}}{}^{\text{p}} \big] \ + \frac{3}{2} \ g_2{}^2 \ s_\gamma{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pil}} \ y_u{}^{\text{pil}} \ LF_{3,1,-1} \big[ \, m_2 \, , \ m_{\tilde{q}}{}^{\text{p}} \big] \ + \frac{3}{2} \ g_2{}^2 \ s_\gamma{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pil}} \ y_u{}^{\text{pil}} \ LF_{3,1,-1} \big[ \, m_2 \, , \ m_{\tilde{q}}{}^{\text{p}} \big] \ + \frac{3}{2} \ g_2{}^2 \ s_\gamma{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pil}} \ y_u{}^{\text
                                                                                                                                                    \frac{3}{4} \; g_2^{\; 2} \; S_\gamma^{\; 2} \; \overline{y_u}^{\text{pil}} \; y_u^{\text{pi2}} \; \mathsf{LF_{4,1,-2}} \big[ \, \mathsf{m_2} \, , \; \mathsf{m_{\tilde{q}}}^{\, p} \, \big] \; + \; \frac{4}{3} \; g_3^{\; 2} \; S_\gamma^{\; 2} \; \overline{y_u}^{\text{pil}} \; y_u^{\text{pi2}} \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_3} \, , \; \mathsf{m_{\tilde{q}}}^{\, p} \, \big] \; - \; \frac{1}{3} \; g_3^{\; 2} \; S_\gamma^{\; 2} \; \overline{y_u}^{\, pi1} \; y_u^{\, pi2} \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_3} \, , \; \mathsf{m_{\tilde{q}}}^{\, p} \, \big] \; - \; \frac{1}{3} \; g_3^{\; 2} \; S_\gamma^{\; 2} \; \overline{y_u}^{\, pi1} \; y_u^{\, pi2} \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_3} \, , \; \mathsf{m_{\tilde{q}}}^{\, p} \, \big] \; - \; \frac{1}{3} \; g_3^{\; 2} \; S_\gamma^{\; 2} \; \overline{y_u}^{\, pi1} \; y_u^{\, pi2} \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_3} \, , \; \mathsf{m_{\tilde{q}}}^{\, p} \, \big] \; - \; \frac{1}{3} \; g_3^{\; 2} \; S_\gamma^{\; 2} \; \overline{y_u}^{\, pi1} \; y_u^{\, pi2} \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_3} \, , \; \mathsf{m_{\tilde{q}}}^{\, p} \, \big] \; - \; \frac{1}{3} \; g_3^{\; 2} \; S_\gamma^{\; 2} \; \overline{y_u}^{\, pi1} \; y_u^{\, pi2} \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_3} \, , \; \mathsf{m_{\tilde{q}}}^{\, p} \, \big] \; - \; \frac{1}{3} \; g_3^{\; 2} \; S_\gamma^{\; 2} \; \overline{y_u}^{\, pi1} \; y_u^{\, pi2} \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_3} \, , \; \mathsf{m_{\tilde{q}}}^{\, p} \, \big] \; - \; \frac{1}{3} \; g_3^{\; 2} \; S_\gamma^{\; 2} \; \overline{y_u^{\, pi2}} \; \mathsf{M_{\tilde{q}}} \, S_\gamma^{\; 2} \; S_\gamma^{\; 2} \; \overline{y_u^{\, pi2}} \; S_\gamma^{\; 2} \; \overline{y_u^
                                                                                                                                                    \frac{8}{3}\;g_{3}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{\text{pil}}\;y_{u}{}^{\text{pi2}}\;\mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\text{p}}\,\big]\,+\,\frac{4}{3}\;g_{3}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{\text{pi1}}\;y_{u}{}^{\text{pi2}}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\text{p}}\,\big]\,+\,\frac{4}{3}\;g_{3}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{\text{pi1}}\;y_{u}{}^{\text{pi2}}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\text{p}}\,\big]\,+\,\frac{4}{3}\;g_{3}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{\text{pi1}}\;y_{u}{}^{\text{pi2}}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\text{p}}\,\big]\,+\,\frac{4}{3}\;g_{3}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{\text{pi1}}\;y_{u}{}^{\text{pi2}}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\text{p}}\,\big]\,+\,\frac{4}{3}\;g_{3}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{\text{pi1}}\;y_{u}{}^{\text{pi2}}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\text{p}}\,\big]\,+\,\frac{4}{3}\;g_{3}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{\text{pi1}}\;y_{u}{}^{\text{pi2}}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\text{p}}\,\big]\,+\,\frac{4}{3}\;g_{3}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{\text{pi1}}\;y_{u}{}^{\text{pi2}}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\text{p}}\,\big]\,+\,\frac{4}{3}\;g_{3}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{\text{pi1}}\;y_{u}{}^{\text{pi2}}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\text{p}}\,\big]\,+\,\frac{4}{3}\;g_{3}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{\text{pi1}}\;y_{u}{}^{\text{pi2}}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\text{pi2}}\,\big]\,+\,\frac{4}{3}\;g_{3}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{\text{pi2}}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\text{pi2}}\,\big]\,+\,\frac{4}{3}\;g_{3}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}\,\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}\,\big]\,+\,\frac{4}{3}\;g_{3}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}\,\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}\,\big]\,
                                                                                                                                                    \frac{4}{27}\; {g_{1}}^2\; {g_{3}}^2\; LF_{2,1,0}\left[\,m_{3}\,,\, m_{\tilde{u}}^{\;\;\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{4}{27}\; {g_{1}}^2\; {g_{3}}^2\; LF_{2,2,-1}\!\left[\,m_{3}\,,\, m_{\tilde{u}}^{\;\;\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}2} - \frac{4}{27}\; {g_{1}}^2\; {g_{3}}^2\; LF_{2,2,-1}\left[\,m_{3}\,,\, m_{\tilde{u}}^{\;\;\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}2} - \frac{4}{27}\; {g_{1}}^2\; {g_{3}}^2\; LF_{2,2,-1}\left[\,m_{3}\,,\, m_{\tilde{u}}^{\;\;\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}2} - \frac{4}{27}\; {g_{1}}^2\; {g_{2}}^2\; LF_{2,2,-1}\left[\,m_{3}\,,\, m_{\tilde{u}}^{\;\;\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}2} - \frac{4}{27}\; {g_{1}}^2\; {g_{2}}^2\; LF_{2,2,-1}\left[\,m_{3}\,,\, m_{\tilde{u}}^{\;\;\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}2} - \frac{4}{27}\; {g_{1}}^2\; {g_{2}}^2\; LF_{2,2,-1}\left[\,m_{3}\,,\, m_{\tilde{u}}^{\;\;\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} - \frac{4}{27}\; {g_{2}}^2\; LF_{2,2,-1}\left[\,m_{3}\,,\, m_{\tilde{u}}^{\;\;\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}\dot{1}} + \frac{4}{27}\; {g_{2}}^2\; LF_{2,2,-1}\left[\,m_{3}\,,\, m_{\tilde{u}}^{\;\;\dot{1}\,2}\,\right]\; \delta_{\dot{1
                                                                                                                                                    \frac{8}{27}\; {\rm g_1}^2\; {\rm g_3}^2\; {\rm LF_{3,1,-1}}\big[\, {\rm m_3}\,,\, {\rm m_{\tilde{u}}^{-\dot{1}\,2}} \,\big] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{4}{27}\; {\rm g_1}^2\; {\rm g_3}^2\; {\rm LF_{4,1,-2}}\big[\, {\rm m_3}\,,\, {\rm m_{\tilde{u}}^{-\dot{1}\,2}} \,\big] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{4}{27}\; {\rm g_1}^2\; {\rm g_3}^2\; {\rm LF_{4,1,-2}}\big[\, {\rm m_3}\,,\, {\rm m_{\tilde{u}}^{-\dot{1}\,2}} \,\big] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{4}{27}\; {\rm g_1}^2\; {\rm g_3}^2\; {\rm LF_{4,1,-2}}\big[\, {\rm m_3}\,,\, {\rm m_{\tilde{u}}^{-\dot{1}\,2}} \,\big] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{4}{27}\; {\rm g_1}^2\; {\rm g_3}^2\; {\rm LF_{4,1,-2}}\big[\, {\rm m_3}\,,\, {\rm m_{\tilde{u}}^{-\dot{1}\,2}} \,\big] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{4}{27}\; {\rm g_1}^2\; {\rm g_3}^2\; {\rm LF_{4,1,-2}}\big[\, {\rm m_3}\,,\, {\rm m_{\tilde{u}}^{-\dot{1}\,2}} \,\big] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{4}{27}\; {\rm g_1}^2\; {\rm g_3}^2\; {\rm LF_{4,1,-2}}\big[\, {\rm m_3}\,,\, {\rm m_{\tilde{u}}^{-\dot{1}\,2}} \,\big] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{4}{27}\; {\rm g_1}^2\; {\rm g_3}^2\; {\rm LF_{4,1,-2}}\big[\, {\rm m_3}\,,\, {\rm m_{\tilde{u}}^{-\dot{1}\,2}} \,\big] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{4}{27}\; {\rm g_1}^2\; {\rm g_3}^2\; {\rm LF_{4,1,-2}}\big[\, {\rm m_3}\,,\, {\rm m_{\tilde{u}}^{-\dot{1}\,2}} \,\big] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{4}{27}\; {\rm g_1}^2\; {\rm g_2}^2\; {\rm LF_{4,1,-2}}\big[\, {\rm m_3}\,,\, {\rm m_{\tilde{u}}^{-\dot{1}\,2}} \,\big] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{4}{27}\; {\rm m_3}^2\; {\rm m_3}^2\; {\rm LF_{4,1,-2}}\big[\, {\rm m_3}\,,\, {\rm m_{\tilde{u}}^{-\dot{1}\,2}} \,\big] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{4}{27}\; {\rm m_3}^2\; {\rm m_3}^2\;
                                                                                                                                                                                           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}_{2,2,\theta}\!\left[\mathsf{m}_{d}^{-r}\,,\,\mathsf{m}_{\tilde{q}}^{-p}\right]\,\delta_{\text{ili}2}-h_{1}^{2}+h_{2}^{2}+h_{3}^{2}+h_{3}^{2}+h_{4}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+h_{5}^{2}+
                                                                                                                                                                                           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) \, \, \text{LF}_{3,2,-1} \! \left[ \, m_{\bar{d}}^{-r} \, , \, \, m_{\bar{q}}^{-p} \, \right] \, \, \delta_{\text{ili2}} \, + \, \delta_{\text{ili2}} \, +
                                                                                                                                                    \frac{2}{9} \; {\rm g_1}^2 \; \left( {\rm c_{\scriptscriptstyle Y}} \; \overline{{\rm a_e}}^{\rm pr} - {\rm s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \; \overline{{\rm y_e}}^{\rm pr} \right) \; \left( {\rm c_{\scriptscriptstyle Y}} \; {\rm a_e}^{\rm pr} - {\rm s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \; {\rm y_e}^{\rm pr} \right) \; {\rm LF_{2,2,0}} \left[ {\rm m_{\tilde e}}^{\rm r} \; , \; {\rm m_{\tilde l}}^{\rm p} \right] \; \delta_{\rm ili2} - {\rm m_{\tilde l}}^{\rm p} \; \delta_{\rm ili2} - {\rm m_{
                                                                                                                                                                                       \mathsf{g_1}^2 \; \left( \mathsf{c}_{\scriptscriptstyle{\Upsilon}} \, \overline{\mathsf{a_e}}^{\mathsf{pr}} - \mathsf{s}_{\scriptscriptstyle{\Upsilon}} \, \widetilde{\mu} \, \overline{\mathsf{y_e}}^{\mathsf{pr}} \right) \; \left( \mathsf{c}_{\scriptscriptstyle{\Upsilon}} \, \mathsf{a_e}^{\mathsf{pr}} - \mathsf{s}_{\scriptscriptstyle{\Upsilon}} \, \widetilde{\mu} \; \mathsf{y_e}^{\mathsf{pr}} \right) \; \mathsf{LF_{3,2,-1}} \big[ \, \mathsf{m_{\tilde{e}}}^{\mathsf{r}} \, , \; \mathsf{m_{\tilde{l}}}^{\mathsf{p}} \big] \; \delta_{\mathsf{ili2}} - \mathsf{m_{\tilde{l}}}^{\mathsf{p}} \, . \; \delta_{\mathsf{lli2}} - 
                                                                                                                                                                                       \mathsf{g_1}^2 \; \left( \mathsf{c}_{\mathsf{Y}} \, \overline{\mathsf{a_e}}^{\mathsf{pr}} \, - \, \mathsf{s}_{\mathsf{Y}} \, \widetilde{\mu} \, \overline{\mathsf{y_e}}^{\mathsf{pr}} \right) \; \left( \mathsf{c}_{\mathsf{Y}} \, \mathsf{a_e}^{\mathsf{pr}} \, - \, \mathsf{s}_{\mathsf{Y}} \, \widetilde{\mu} \; \mathsf{y_e}^{\mathsf{pr}} \right) \; \mathsf{LF_{3,1,0}} \left[ \, \mathsf{m_{\bar{l}}}^{\mathsf{p}} \, , \, \, \mathsf{m_{\bar{e}}}^{\mathsf{r}} \, \right] \; \delta_{\mathsf{11i2}} \, - \, \mathsf{m_{\bar{l}}}^{\mathsf{pr}} \, + \, \mathsf{m_{\bar{l}}}
                                                                                                                                                                                       \mathsf{g_1}^2 \; \left( \mathsf{c_{\scriptscriptstyle Y}} \; \overline{\mathsf{a_e}}^{\mathsf{pr}} - \mathsf{s_{\scriptscriptstyle Y}} \, \widetilde{\mu} \; \overline{\mathsf{y_e}}^{\mathsf{pr}} \right) \; \left( \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{a_e}^{\mathsf{pr}} - \mathsf{s_{\scriptscriptstyle Y}} \, \widetilde{\mu} \; \mathsf{y_e}^{\mathsf{pr}} \right) \; \mathsf{LF_{3,2,-1}} \big[ \, \mathsf{m_{\scriptscriptstyle \tilde{l}}}^{\mathsf{r}} \, \mathsf{,} \; \mathsf{m_{\scriptscriptstyle \tilde{e}}}^{\mathsf{r}} \big] \; \delta_{\mathsf{ili2}} + \mathsf{m_{\scriptscriptstyle \tilde{l}}}^{\mathsf{pr}} \, \mathsf{m_{\scriptscriptstyle \tilde{l}}}^{
                                                                                                                                                                                           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_{4,1,-1}} \big[ \, \mathsf{m_{\tilde{l}}}^{r} \, , \, \mathsf{m_{\tilde{e}}}^{r} \big] \, \, \delta_{\text{ili2}} - c_{\text{ili2}} \, + c_{\text{ili2}} \, c_{\text{il
                                                                                                                                                    \frac{2}{9}~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)~LF_{5,1,-2}\big[m_{\tilde{l}}^{~p},~m_{\tilde{e}}^{~r}\big]~\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}~a_{e}^{pr}-s_{\gamma}~\widetilde{\mu}~y_{e}^{pr}\right)~LF_{5,1,-2}\left[m_{\tilde{l}}^{~p},~m_{\tilde{e}}^{~r}\right]~\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}~a_{e}^{pr}-s_{\gamma}~\widetilde{\mu}~y_{e}^{pr}\right)~LF_{5,1,-2}\left[m_{\tilde{l}}^{~p},~m_{\tilde{e}}^{~r}\right]~\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}~a_{e}^{pr}-s_{\gamma}~\widetilde{\mu}~y_{e}^{pr}\right)~LF_{5,1,-2}\left[m_{\tilde{l}}^{~p},~m_{\tilde{e}}^{~r}\right]~\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}~a_{e}^{pr}-s_{\gamma}~\widetilde{\mu}~y_{e}^{pr}\right)~LF_{5,1,-2}\left[m_{\tilde{l}}^{p},~m_{\tilde{e}}^{pr}\right]~\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}~a_{e}^{pr}-s_{\gamma}~\widetilde{\mu}~y_{e}^{pr}\right)~LF_{5,1,-2}\left[m_{\tilde{l}}^{p},~m_{\tilde{e}}^{pr}\right]~\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}~a_{e}^{pr}-s_{\gamma}~\widetilde{\mu}~y_{e}^{pr}\right)~LF_{5,1,-2}\left[m_{\tilde{l}}^{p},~m_{\tilde{e}}^{pr}\right]~\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}~a_{e}^{pr}-s_{\gamma}~\widetilde{\mu}~y_{e}^{pr}\right)~LF_{5,1,-2}\left[m_{\tilde{l}}^{p},~m_{\tilde{e}}^{pr}\right]~\delta_{\text{ili2}}-\frac{1}{2}\left(c_{\gamma}~a_{e}^{pr}-s_{\gamma}~\widetilde{\mu}~y_{e}^{pr}\right)~LF_{5,1,-2}\left[m_{\tilde{l}}^{p},~m_{\tilde{e}}^{pr}\right]
                                                                                                                                                                                           g_{1}^{2} \, \left( c_{\gamma} \, \overline{a_{d}}^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, \overline{y_{d}}^{\text{pr}} \right) \, \left( c_{\gamma} \, a_{d}^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\text{pr}} \right) \, \text{LF}_{3,1,0} \left[ \, \textbf{m}_{\tilde{\textbf{q}}}^{\text{p}} \, , \, \, \textbf{m}_{\tilde{\textbf{d}}}^{\text{r}} \, \right] \, \delta_{\text{11i}2} - \delta_{\text{11i}2} \, \delta_{\text{11i}2} + \delta_{\text{11i}2} \, \delta_{\text{1
                                                                                                                                                                                                g_1^2 \left( c_{\gamma} \, \overline{a_d}^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, \overline{y_d}^{\text{pr}} \right) \, \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \text{LF}_{3,2,-1} \! \left[ \textbf{m}_{\bar{\textbf{q}}}^{\text{p}}, \, \textbf{m}_{\bar{\textbf{d}}}^{\text{r}} \right] \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{\gamma} \, a_d^{\text{pr}} - s_{\gamma} \, y_d^{\text{pr}} \right) \, \delta_{\text{ili}2} + \frac{1}{2} \left( c_{
                                                                                                                                                                                           g_{1}^{2} \, \left( c_{\gamma} \, \overline{a_{d}}^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, \overline{y_{d}}^{\text{pr}} \right) \, \left( c_{\gamma} \, a_{d}^{\text{pr}} - s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\text{pr}} \right) \, \text{LF}_{4,1,-1} \big[ \, m_{\tilde{q}}^{\,\, r} \, , \, m_{\tilde{d}}^{\,\, r} \, \big] \, \, \delta_{\text{ili}2} - c_{1}^{\,\, r} \, \, \delta_{\text{ili
                                                                                                                                                                                                \mathbf{g_{1}}^{2} \; \left( \mathbf{c_{\gamma}} \; \overline{\mathbf{a_{d}}}^{\text{pr}} - \mathbf{s_{\gamma}} \; \widetilde{\boldsymbol{\mu}} \; \overline{\mathbf{y_{d}}}^{\text{pr}} \right) \; \left( \mathbf{c_{\gamma}} \; \mathbf{a_{d}}^{\text{pr}} - \mathbf{s_{\gamma}} \; \widetilde{\boldsymbol{\mu}} \; \mathbf{y_{d}}^{\text{pr}} \right) \; \mathsf{LF_{5,1,-2}} \left[ \, \mathbf{m_{\tilde{q}}}^{\text{p}} \, , \; \mathbf{m_{\tilde{d}}}^{\text{r}} \, \right] \; \delta_{\text{ili2}} - \mathbf{a_{\tilde{q}}}^{\text{pr}} \; \delta_{\text{ili2}} - \mathbf{a_{\tilde{q}}}^{\text{pr}} \; \delta_{\text{ili2}} - \mathbf{a_{\tilde{q}}}^{\text{pr}} \, \delta_{\text{ili2}} + \mathbf{a_{\tilde{q}}}^{\text{pr}} \, 
                                                                                                                                                                                                \mathbf{g_{1}}^{2} \; \left( \, \mathbf{s_{\scriptscriptstyle Y}} \; \overline{\mathbf{a_{u}}}^{\text{pr}} \, - \, \widetilde{\boldsymbol{\mu}} \; \mathbf{c_{\scriptscriptstyle Y}} \; \overline{\mathbf{y_{u}}}^{\text{pr}} \right) \; \left( \, \mathbf{s_{\scriptscriptstyle Y}} \; \mathbf{a_{u}}^{\text{pr}} \, - \, \widetilde{\boldsymbol{\mu}} \; \mathbf{c_{\scriptscriptstyle Y}} \; \mathbf{y_{u}}^{\text{pr}} \right) \; \mathsf{LF_{2,2,0}} \left[ \, \mathbf{m_{\bar{q}}}^{\text{p}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, \right] \; \delta_{\text{ili2}} \; + \, \delta_{\text{ili2}} \; + \,
                                                                                                                                                    \frac{1}{18} \; \mathbf{g_1}^2 \; \left( \mathbf{s_{\gamma}} \; \overline{\mathbf{a_u}}^{\text{pr}} - \widetilde{\boldsymbol{\mu}} \; \mathbf{c_{\gamma}} \; \overline{\mathbf{y_u}}^{\text{pr}} \right) \; \left( \mathbf{s_{\gamma}} \; \mathbf{a_u}^{\text{pr}} - \widetilde{\boldsymbol{\mu}} \; \mathbf{c_{\gamma}} \; \mathbf{y_u}^{\text{pr}} \right) \; \mathsf{LF_{3,2,-1}} \left[ \mathbf{m_{\tilde{q}}}^{\text{p}}, \; \mathbf{m_{\tilde{u}}}^{\text{r}} \right] \; \delta_{\text{ili2}} - \widetilde{\boldsymbol{\mu}} \; \mathbf{a_{\tilde{q}}}^{\text{pr}} \; \mathbf{a_{\tilde{q}}}^{\text{pr}} \; \mathbf{a_{\tilde{q}}}^{\text{pr}} \right] \; \delta_{\text{ili2}} - \widetilde{\boldsymbol{\mu}} \; \mathbf{a_{\tilde{q}}}^{\text{pr}} \; \mathbf{a_{\tilde{q}}}^{\text{pr}}
                                                                                                                                                    \frac{1}{18} \ g_1{}^2 \ \overline{y_u}^{\text{pil}} \ y_u{}^{\text{pil}} \ y_u{}^{\text{pil}} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m_q}^{\text{p}} \ , \ \widetilde{\mu} \ \right] \ + \ \frac{1}{36} \ g_1{}^2 \ \overline{y_u}^{\text{pil}} \ y_u{}^{\text{pil}} \ y_u{}^{\text{pil}} \ \mathsf{LF}_{2,2,-1} \left[ \ \mathsf{m_q}^{\text{p}} \ , \ \widetilde{\mu} \ \right] \ + \ \frac{1}{36} \ g_1{}^2 \ \overline{y_u}^{\text{pil}} \ y_u{}^{\text{pil}} \ y_u{}^{\text{pil}}
                                                                                                                                                                             \mathsf{LF_{3,1,-1}}\big[\mathsf{m}_{\bar{\mathsf{q}}}^{\mathsf{p}},\,\widetilde{\mu}\big] + \tfrac{1}{9}\;\mathsf{g_{1}}^{2}\;\big(\mathsf{s}_{\curlyvee}\;\overline{\mathsf{a}_{\mathsf{u}}}^{\mathsf{pr}} - \widetilde{\mu}\;\mathsf{c}_{\curlyvee}\;\overline{\mathsf{y}_{\mathsf{u}}}^{\mathsf{pr}}\big)\;\left(\mathsf{s}_{\curlyvee}\;\mathsf{a}_{\mathsf{u}}^{\mathsf{pr}} - \widetilde{\mu}\;\mathsf{c}_{\curlyvee}\;\mathsf{y}_{\mathsf{u}}^{\mathsf{pr}}\right)\;\mathsf{LF_{3,1,0}}\big[\mathsf{m}_{\bar{\mathsf{u}}}^{\mathsf{r}},\,\mathsf{m}_{\bar{\mathsf{q}}}^{\mathsf{p}}\big]\;\delta_{\mathsf{ili2}} + \mathsf{m}_{\mathsf{u}}^{\mathsf{pr}},\,\mathsf{m}_{\mathsf{u}}^{\mathsf{pr}}\big]
                                                                                                                                                    \frac{1}{9} \; \mathsf{g_1}^2 \; \left( \mathsf{s_{\gamma}} \; \overline{\mathsf{a_u}}^\mathsf{pr} - \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \overline{\mathsf{y_u}}^\mathsf{pr} \right) \; \left( \mathsf{s_{\gamma}} \; \mathsf{a_u}^\mathsf{pr} - \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{y_u}^\mathsf{pr} \right) \; \mathsf{LF_{3,2,-1}} \big[ \mathsf{m_{\tilde{u}}}^\mathsf{r} \; , \; \mathsf{m_{\tilde{q}}}^\mathsf{p} \big] \; \delta_{\mathsf{ili2}} \; + \\
                                                                                                                                                    \frac{1}{3} \; 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_{4,1,-1}} \big[ \mathsf{m}_{\widetilde{u}}^{\; r} \; , \; \mathsf{m}_{\widetilde{q}}^{\; p} \big] \; \delta_{\mathsf{11i2}} - \mathcal{M}_{\mathsf{11i2}} \; \mathcal{M
                                                                                                                                                    \frac{2}{3} \; 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} \left[ \mathsf{m}_{\widetilde{u}}^{\; r} \; , \; \mathsf{m}_{\widetilde{q}}^{\; p} \right] \; \delta_{\texttt{lli}2} - \mathcal{O}_{\mathsf{lli}2} \; \mathcal{O}_{\mathsf{llii}2} \; \mathcal{O}_{\mathsf{lliii}2} \; \mathcal{O}_{\mathsf{lliii}2} \; \mathcal{O}_{\mathsf{lliii}2} \; \mathcal{O}_{\mathsf{lliii}2
                                                                                                                                                    \frac{8}{81}\;{\rm g_1}^4\;{\rm LF_{2,1,0}}\!\left[{\rm m_{\tilde{u}}}^{\rm i2},\;{\rm m_1}\right]\;\delta_{\rm i1i2}+\frac{4}{81}\;{\rm g_1}^4\;{\rm LF_{3,1,-1}}\!\left[{\rm m_{\tilde{u}}}^{\rm i2},\;{\rm m_1}\right]\;\delta_{\rm i1i2}-\frac{1}{2}
                                                                                                                                                \frac{8}{27}\; g_{1}{}^{2}\; g_{3}{}^{2}\; \mathsf{LF}_{2,1,0}\big[\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{\mathsf{i}}\, 2}\,,\;\mathsf{m}_{3}\,\big]\; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}\, 2}\,+\,\frac{4}{27}\; g_{1}{}^{2}\; g_{3}{}^{2}\; \mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{\mathsf{i}}\, 2}\,,\;\mathsf{m}_{3}\,\big]\; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}\, 2}\,-\,\frac{4}{27}\; g_{1}{}^{2}\; g_{2}{}^{2}\; \mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{\mathsf{i}}\, 2}\,,\;\mathsf{m}_{3}\,\big]\; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}\, 2}\,-\,\frac{4}{27}\; g_{1}{}^{2}\; g_{2}{}^{2}\; \mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{\mathsf{u}}\, 2}\,,\;\mathsf{m}_{3}\,\big]\; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}\, 2}\,-\,\frac{4}{27}\; g_{1}{}^{2}\; g_{2}{}^{2}\; \mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{\mathsf{u}}\, 2}\,,\;\mathsf{m}_{3}\,\big]\; \delta_{\dot{\mathsf{u}}\dot{\mathsf{1}}\dot{\mathsf{1}}\, 2}\,-\,\frac{4}{27}\; g_{1}{}^{2}\; g_{2}{}^{2}\; \mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{\mathsf{u}}\, 2}\,,\;\mathsf{m}_{3}\,\big]\; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}\dot{\mathsf{u}}\, 2}\,-\,\frac{4}{27}\; g_{1}{}^{2}\; g_{2}{}^{2}\; g_{3}{}^{2}\; \mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{\mathsf{u}}\, 2}\,,\;\mathsf{m}_{3}\,\big]\; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}\dot{\mathsf{u}}\, 2}\,-\,\frac{4}{27}\; g_{1}{}^{2}\; g_{3}{}^{2}\; \mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{\mathsf{u}}\, 2}\,,\;\mathsf{m}_{3}\,\big]\; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}\dot{\mathsf{u}}\, 2}\,-\,\frac{4}{27}\; g_{1}{}^{2}\; g_{2}{}^{2}\; g_{3}{}^{2}\; \mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{\mathsf{u}}\, 2}\,,\;\mathsf{m}_{3}\,\big]\; \delta_{\dot{\mathsf{u}}\dot{\mathsf{u}}\dot{\mathsf{u}}\, 2}\,-\,\frac{4}{27}\; g_{1}{}^{2}\; g_{3}{}^{2}\; \mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{\tilde{\mathsf{u}}}\, 2\,\, g_{1}\,\, 2\,\, g_{2}\,\, 2\,\, g_{3}\,\, 2\,\, g_
                                                                                                                                                                                                                    \mathsf{g_{1}}^{4} \left(\mathsf{c_{\gamma}}^{2} + \mathsf{s_{\gamma}}^{2}\right) \, \mathsf{LF_{4,1,-2}} \left[\widetilde{\mu}\,,\,\,\mathsf{m_{1}}\right] \, \delta_{\mathsf{1112}} - \frac{1}{3} \, \, \mathsf{m_{1}} \, \, \mathsf{s_{\gamma}} \, \widetilde{\mu} \, \, \mathsf{c_{\gamma}} \, \, \mathsf{g_{1}}^{4} \, \, \mathsf{LF_{4,1,-1}} \left[\widetilde{\mu}\,,\,\,\mathsf{m_{1}}\right] \, \delta_{\mathsf{1112}} + \frac{1}{3} \, \, \mathsf{m_{1}} \, \, \mathsf{s_{\gamma}} \, \widetilde{\mu} \, \, \mathsf{c_{\gamma}} \, \, \mathsf{g_{1}}^{4} \, \, \mathsf{LF_{4,1,-1}} \left[\widetilde{\mu}\,,\,\,\mathsf{m_{1}}\right] \, \delta_{\mathsf{1112}} + \frac{1}{3} \, \, \mathsf{m_{1}} \, \, \mathsf{s_{\gamma}} \, \, \widetilde{\mu} \, \, \mathsf{c_{\gamma}} \, \, \mathsf{g_{1}}^{4} \, \, \, \mathsf{LF_{4,1,-1}} \left[\widetilde{\mu}\,,\,\,\,\mathsf{m_{1}}\right] \, \delta_{\mathsf{1112}} + \frac{1}{3} \, \, \mathsf{m_{1}} \, \, \mathsf{s_{\gamma}} \, \, \widetilde{\mu} \, \, \mathsf{c_{\gamma}} \, \, \mathsf{g_{1}}^{4} \, \, \, \mathsf{LF_{4,1,-1}} \left[\widetilde{\mu}\,,\,\,\,\mathsf{m_{1}}\right] \, \delta_{\mathsf{1112}} + \frac{1}{3} \, \, \mathsf{m_{1}} \, \, \mathsf{s_{\gamma}} \, \, \mathsf{m_{2}} \, \, \mathsf{s_{\gamma}} \, \, \mathsf{m_{2}} \, \, \mathsf{s_{\gamma}} \, 
                                                                                                                                                                                       \mathsf{g_1}^4 \left(\mathsf{c_{\gamma}}^2 + \mathsf{s_{\gamma}}^2\right) \; \mathsf{LF_{5,1,-3}} \left[\widetilde{\mu} \,,\, \mathsf{m_1}\right] \; \delta_{\mathsf{1112}} + \frac{4}{9} \; \mathsf{m_1} \; \mathsf{s_{\gamma}} \, \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^4 \; \mathsf{LF_{5,1,-2}} \left[\widetilde{\mu} \,,\, \mathsf{m_1}\right] \; \delta_{\mathsf{1112}} - \frac{1}{9} \; \mathsf{m_1} \; \mathsf{s_{\gamma}} \, \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^4 \; \mathsf{LF_{5,1,-2}} \left[\widetilde{\mu} \,,\, \mathsf{m_1}\right] \; \delta_{\mathsf{1112}} - \frac{1}{9} \; \mathsf{m_1} \; \mathsf{s_{\gamma}} \, \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^4 \; \mathsf{LF_{5,1,-2}} \left[\widetilde{\mu} \,,\, \mathsf{m_1}\right] \; \delta_{\mathsf{1112}} - \frac{1}{9} \; \mathsf{m_2} \; \mathsf{s_{\gamma}} \; \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^4 \; \mathsf{LF_{5,1,-2}} \left[\widetilde{\mu} \,,\, \mathsf{m_1}\right] \; \delta_{\mathsf{1112}} - \frac{1}{9} \; \mathsf{m_2} \; \mathsf{s_{\gamma}} \; \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^4 \; \mathsf{LF_{5,1,-2}} \left[\widetilde{\mu} \,,\, \mathsf{m_2}\right] \; \delta_{\mathsf{1112}} - \frac{1}{9} \; \mathsf{m_2} \; \mathsf{s_{\gamma}} \; \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^4 \; \mathsf{d_{\gamma}} \; \mathsf{d
                                                                                                                                                \frac{5}{6}\;{\rm g_1}^2\;{\rm g_2}^2\;\left({\rm c_{\gamma}}^2+{\rm s_{\gamma}}^2\right)\;{\rm LF_{4,1,-2}}\left[\widetilde{\mu}\;,\;{\rm m_2}\right]\;\delta_{\rm ili_2}-{\rm m_2}\;{\rm s_{\gamma}}\;\widetilde{\mu}\;{\rm c_{\gamma}}\;{\rm g_1}^2\;{\rm g_2}^2\;{\rm LF_{4,1,-1}}\left[\widetilde{\mu}\;,\;{\rm m_2}\right]\;\delta_{\rm ili_2}+{\rm in_2}\left[\widetilde{\mu}\;,\;{\rm m_2}\right]\;\delta_{\rm ili_2}+{\rm in_2}\left[
                                                                                                                                                \frac{2}{3}\;g_{1}^{2}\;g_{2}^{2}\;\left(c_{\gamma}^{\;2}+s_{\gamma}^{\;2}\right)\;\mathsf{LF}_{5,1,-3}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}\;s_{\gamma}\;\widetilde{\mu}\;c_{\gamma}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}\;s_{\gamma}^{\;2}\;\widetilde{\mu}\;c_{\gamma}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}^{\;2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{m}_{2}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{3}\;\mathsf{LF}_{5,1,-2}\left[\widetilde{\mu}\,,\;\mathsf{m}_{2}\right]\;\delta_{\mathsf{1112}}+\frac{4}{
                                                                                                                                                                                                \mathbf{s_{\gamma}^{2}} \ \overline{y_{d}^{pr}} \ y_{d}^{sr} \ \overline{y_{u}^{si1}} \ y_{u}^{pi2} \ \mathsf{LF_{2,1,0}} \left[ \widetilde{\mu} \ , \ \mathsf{m_{\tilde{d}}^{r}} \right] \\ - \ \mathbf{s_{\gamma}^{2}} \ \overline{y_{d}^{pr}} \ y_{d}^{sr} \ \overline{y_{u}^{si1}} \ y_{u}^{pi2} \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \ , \ \mathsf{m_{\tilde{d}}^{r}} \right] \\ + \ \mathsf{m_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \\ + \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \\ + \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \\ + \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \\ + \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \\ + \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \\ + \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \\ + \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \\ + \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \\ + \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}}^{r}} \right] \ \mathsf{M_{\tilde{d}}^{r}} \left[ \mathbf{x_{\tilde{d}^{r}}} \right] 
                                                                                                                                                                                                \mathbf{s_{\tilde{\gamma}}^{2}}\,\overline{\mathbf{y_{d}}^{\text{pr}}}\,\mathbf{y_{d}}^{\text{sr}}\,\overline{\mathbf{y_{u}}^{\text{si1}}}\,\mathbf{y_{u}}^{\text{pi2}}\,\mathsf{LF_{4,1,-2}}\big[\widetilde{\mu}\,,\,\mathbf{m_{\tilde{d}}^{r}}\big]\,+\,\frac{1}{36}\,\,\mathbf{g_{1}^{2}}\,\overline{\mathbf{y_{u}}^{\text{pi1}}}\,\mathbf{y_{u}}^{\text{pi2}}\,\mathsf{LF_{2,1,0}}\big[\widetilde{\mu}\,,\,\mathbf{m_{\tilde{q}}^{r}}\big]\,-\,\mathbf{m_{\tilde{q}}^{r}}\big]\,-\,\mathbf{m_{\tilde{d}}^{r}}\,\mathbf{y_{u}^{r}}^{\text{pi3}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}}\,\mathbf{y_{u}^{r}}^{\text{pi4}}\,
                                                                                                                                                    \frac{11}{36} \ g_1{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pi2}} \ \mathsf{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pi2}} \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pi2}} \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pi2}} \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \overline{y_u}{}^{\text{pil}} \ y_u{}^{\text{pi2}} \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \overline{y_u}{}^{\text{pi2}} \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \overline{y_u}{}^{\text{pi2}} \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \overline{y_u}{}^{\text{pi2}} \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \overline{y_u}{}^{\text{pi2}} \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \overline{y_u}{}^{\text{pi2}} \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \overline{y_u}{}^{\text{pi2}} \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ g_1{}^2 \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ \mathfrak{m}_{\bar{q}}^{-p} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ \mathfrak{m}_{\bar{q}}^{-p} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ \mathfrak{m}_{\bar{q}}^{-p} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ \mathfrak{m}_{\bar{q}}^{-p} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ \mathfrak{m}_{\bar{q}}^{-p} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ \mathfrak{m}_{\bar{q}}^{-p} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ \mathfrak{m}_{\bar{q}}^{-p} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac{1}{9} \ \mathfrak{m}_{\bar{q}}^{-p} \big[ \widetilde{\mu} \, , \ \mathfrak{m}_{\bar{q}}^{-p} \big] \, + \, \frac
                                                                                                                                                                                       \mathsf{s_{\gamma}}^2 \, \overline{y_u}^{\mathsf{pil}} \, \overline{y_u}^{\mathsf{rs}} \, \mathsf{y_u}^{\mathsf{ps}} \, \mathsf{y_u}^{\mathsf{ri2}} \, \mathsf{LF_{2,1,0}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] \, - \, \mathsf{s_{\gamma}}^2 \, \overline{y_u}^{\mathsf{pil}} \, \overline{y_u}^{\mathsf{rs}} \, \mathsf{y_u}^{\mathsf{ps}} \, \mathsf{y_u}^{\mathsf{ri2}} \, \mathsf{LF_{3,1,-1}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] \, + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big] + \, \mathsf{m_{\tilde{u}}}^{\mathsf{s}} \big[ \mathsf{m
                                                                                                                                                rac{1}{2} \mathrm{S_{Y}}^{2} \overline{\mathrm{y_{u}}}^{\mathrm{pil}} \overline{\mathrm{y_{u}}}^{\mathrm{rs}} \mathrm{y_{u}}^{\mathrm{ps}} \mathrm{y_{u}}^{\mathrm{ri2}} \mathrm{LF_{4,1,-2}}\big[\widetilde{\mu}, \mathrm{m_{\tilde{u}}}^{\mathrm{s}}\big] +
                                                                                                                                                    \frac{1}{18} \text{ m}_{1} \text{ s}_{\Upsilon} \text{ g}_{1}^{2} \text{ y}_{u}^{\text{pi2}} \left(-\text{ s}_{\Upsilon} \overline{\text{a}_{u}}^{\text{pi1}} + \widetilde{\mu} \text{ c}_{\Upsilon} \overline{\text{y}_{u}}^{\text{pi1}}\right) \text{ LF}_{2,1,1,0} \left[\text{m}_{1}, \text{m}_{\tilde{q}}^{\text{p}}, \text{m}_{\tilde{u}}^{\text{ii}}\right] + \widetilde{\text{m}}_{1}^{\text{pi}} + \widetilde{\text{m}}_{1}^{\text{pi}} + \widetilde{\text{m}}_{2}^{\text{pi}} + \widetilde{\text{m}}_{2}^{\text{pi}}\right]
                                                                                                                                                                   \frac{1}{36} \, \, m_1 \, \, s_{\gamma} \, \, g_1^{\, 2} \, \, y_u^{\, pi2} \, \left( - \, s_{\gamma} \, \, \overline{a_u}^{pi1} + \widetilde{\mu} \, \, c_{\gamma} \, \, \overline{y_u}^{pi1} \right) \, \, LF_{2,2,1,-1} \big[ \, m_1 \, , \, \, m_{\tilde{q}}^{\, p} \, , \, \, m_{\tilde{u}}^{\, i1} \big] \, + \, \widetilde{\mu} \, \, c_{\gamma} \, \, \overline{y_u}^{\, pi1} \, \,
                                                                                                                                                    \frac{1}{18} \text{ m}_1 \text{ s}_{\gamma} \text{ g}_1^2 \text{ y}_u^{\text{pi2}} \left(\text{s}_{\gamma} \overline{\text{a}_u^{\text{pi1}}} - \widetilde{\mu} \text{ c}_{\gamma} \overline{\text{y}_u^{\text{pi1}}}\right) \text{ LF}_{3,1,1,-1} \left[\text{m}_1, \text{m}_{\tilde{q}}^{\text{p}}, \text{m}_{\tilde{u}}^{\text{i1}}\right] + \\
                                                                                                                                                    \frac{1}{18} \; \mathsf{m_1} \; \mathsf{s_{Y}} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{pil}} \; \left( - \, \mathsf{s_{Y}} \; \mathsf{a_u}^{\mathsf{pi2}} + \widetilde{\mu} \; \mathsf{c_{Y}} \; \mathsf{y_u}^{\mathsf{pi2}} \right) \; \mathsf{LF_{2,1,1,0}} \big[ \, \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\, \mathsf{p}} \, , \; \mathsf{m_{\tilde{u}}}^{\mathsf{i2}} \big] \; + \\
                                                                                                                                                              \frac{1}{36} \, m_1 \, s_{\gamma} \, g_1^2 \, \overline{y_u}^{pil} \, \left( - \, s_{\gamma} \, a_u^{pi2} + \widetilde{\mu} \, c_{\gamma} \, y_u^{pi2} \right) \, LF_{2,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, i2} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, p}, \, m_{\bar{u}}^{\, p} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, p}, \, m_{\bar{u}}^{\, p}, \, m_{\bar{u}}^{\, p} \right] + C_{1,2,1,-1} \left[ m_1, \, m_{\bar{q}}^{\, p}, \, m_{\bar{u}}^{\, p}, \, m_{\bar{u}
                                                                                                                                                                        \stackrel{\text{30}}{\underset{\text{10}}{\text{m}}} \, \, \mathsf{m_1} \, \, \mathsf{s_{\gamma}} \, \, \mathsf{g_1}^2 \, \, \overline{\mathsf{y_u}}^{\mathsf{pil}} \, \, \left( \, \mathsf{s_{\gamma}} \, \, \mathsf{a_u}^{\mathsf{pi2}} - \widetilde{\mu} \, \, \mathsf{c_{\gamma}} \, \mathsf{y_u}^{\mathsf{pi2}} \right) \, \, \mathsf{LF_{3,1,1,-1}} \big[ \, \mathsf{m_1} \, , \, \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{p}} \, , \, \, \mathsf{m_{\tilde{u}}}^{\mathsf{i2}} \big] \, + \\
                                                                                                                                                    \frac{1}{4} \; g_{1}{}^{2} \; s_{\gamma}{}^{2} \; \overline{y_{u}}{}^{\text{pil}} \; y_{u}{}^{\text{pi2}} \; \mathsf{LF}_{2,1,1,-1} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\tilde{q}}{}^{\text{p}} \, , \; \tilde{\mu} \, \big] \; + \; \frac{1}{6} \; \mathsf{m}_{1} \; s_{\gamma} \; \tilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{\text{pil}} \; y_{u}{}^{\text{pi2}} \; \mathsf{LF}_{2,1,1,0} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\tilde{q}}{}^{\text{p}} \, \big] \; + \; \frac{1}{6} \; \mathsf{m}_{1} \; s_{\gamma} \; \tilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{\text{pil}} \; y_{u}{}^{\text{pi2}} \; \mathsf{LF}_{2,1,1,0} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\tilde{q}}{}^{\text{p}} \, \big] \; + \; \frac{1}{6} \; \mathsf{m}_{1} \; s_{\gamma} \; \tilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{\text{pil}} \; y_{u}{}^{\text{pi2}} \; \mathsf{LF}_{2,1,1,0} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\tilde{q}}{}^{\text{p}} \, \big] \; + \; \frac{1}{6} \; \mathsf{m}_{1} \; s_{\gamma} \; \tilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{\text{pil}} \; y_{u}{}^{\text{pi2}} \; \mathsf{LF}_{2,1,1,0} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\tilde{q}}{}^{\text{p}} \, \big] \; + \; \frac{1}{6} \; \mathsf{m}_{1} \; s_{\gamma} \; \tilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{\text{pil}} \; y_{u}{}^{\text{pil}} \; \mathsf{LF}_{2,1,1,0} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\tilde{q}}{}^{\text{p}} \, \big] \; + \; \frac{1}{6} \; \mathsf{m}_{1} \; s_{\gamma} \; \tilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{\text{pil}} \; s_{\gamma} \; c_{\gamma} \; g_{1}{}^{\text{pil}} \; s_{\gamma} \; c_{\gamma} \; c_{\gamma} \; g_{1}{}^{\text{pil}} \; s_{\gamma} \; c_{\gamma} \; 
                                                                                                                                                    \frac{1}{6} \ g_{1}{}^{2} \ s_{\gamma}{}^{2} \ \overline{y_{u}}{}^{pi1} \ y_{u}{}^{pi2} \ \mathsf{LF}_{3,1,1,-2} \big[ \mathsf{m}_{1} , \ \mathsf{m}_{\tilde{q}}{}^{p} , \ \tilde{\mu} \, \big] - \frac{1}{6} \ \mathsf{m}_{1} \ s_{\gamma} \ \tilde{\mu} \ c_{\gamma} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{pi1} \ y_{u}{}^{pi2} \ \mathsf{LF}_{3,1,1,-1} \big[ \mathsf{m}_{1} , \ \mathsf{m}_{\tilde{q}}{}^{p} , \ \tilde{\mu} \, \big] + \frac{1}{6} \ \mathsf{m}_{1} \ \mathsf{m}_{2} \ \mathsf{m}_{2} \ \mathsf{m}_{3} \ \mathsf{m}_{3
                                                                                                                                                    \frac{1}{36} \text{ m}_1 \text{ s}_{\gamma} \text{ g}_1^2 \text{ y}_u^{\text{pi2}} \left(\text{s}_{\gamma} \overline{\text{a}_u^{\text{pi1}}} - \widetilde{\mu} \text{ c}_{\gamma} \overline{\text{y}_u^{\text{pi1}}}\right) \text{LF}_{2,2,1,-1} \left[\text{m}_1, \text{m}_{\widetilde{u}}^{\text{ii}}, \text{m}_{\widetilde{q}}^{\text{p}}\right] +
                                                                                                                                                                        \frac{1}{36} \; \mathsf{m_1} \; \mathsf{s_Y} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{pil}} \; \left( \mathsf{s_Y} \; \mathsf{a_u}^{\mathsf{pi2}} - \widetilde{\mu} \; \mathsf{c_Y} \; \mathsf{y_u}^{\mathsf{pi2}} \right) \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathsf{m_1} \, , \; \mathsf{m_{\tilde{u}}}^{\mathsf{i2}} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{p}} \big] \; + \\
                                                                                                                                                                                                \frac{2}{9} \; g_{1}^{\; 4} \; m_{1}^{\; 2} \; \left(-\, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; \mathsf{LF}_{2,1,1,0} \left[\, m_{1} , \; m_{\tilde{u}}^{\; i2} \, , \; \tilde{\mu} \,\right] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} + \frac{1}{24} \; g_{1}^{\; 2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}}^{p\dot{1}} \; y_{u}^{\; p\dot{1}\dot{2}} \; \mathsf{LF}_{2,2,1,-2} \left[\, m_{1} \, , \; \tilde{\mu} \, , \; m_{\tilde{q}}^{\; p} \,\right] \; + \frac{1}{24} \; g_{1}^{\; 2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}}^{p\dot{1}} \; y_{u}^{\; p\dot{1}\dot{2}} \; \mathsf{LF}_{2,2,1,-2} \left[\, m_{1} \, , \; \tilde{\mu} \, , \; m_{\tilde{q}}^{\; p} \,\right] \; + \frac{1}{24} \; g_{1}^{\; 2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}}^{p\dot{1}} \; y_{u}^{\; p\dot{1}\dot{2}} \; \mathsf{LF}_{2,2,1,-2} \left[\, m_{1} \, , \; \tilde{\mu} \, , \; m_{\tilde{q}}^{\; p} \, \right] \; + \frac{1}{24} \; g_{1}^{\; 2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}}^{p\dot{1}\dot{1}} \; y_{u}^{\; p\dot{1}\dot{2}} \; \mathsf{LF}_{2,2,1,-2} \left[\, m_{1} \, , \; \tilde{\mu} \, , \; m_{\tilde{q}}^{\; p} \, \right] \; + \frac{1}{24} \; g_{1}^{\; 2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}}^{p\dot{1}\dot{1}} \; y_{u}^{\; p\dot{1}\dot{2}} \; \mathsf{LF}_{2,2,1,-2} \left[\, m_{1} \, , \; \tilde{\mu} \, , \; m_{\tilde{q}}^{\; p} \, \right] \; + \frac{1}{24} \; g_{1}^{\; 2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}}^{p\dot{1}\dot{1}} \; y_{u}^{\; p\dot{1}\dot{2}} \; \mathsf{LF}_{2,2,1,-2} \left[\, m_{1} \, , \; \tilde{\mu} \, , \; m_{\tilde{q}}^{\; p} \, \right] \; + \frac{1}{24} \; g_{1}^{\; 2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}}^{\; p\dot{1}\dot{1}} \; y_{u}^{\; p\dot{1}} \; y_{u}
                                                                                                                                                    \frac{1}{24} \; \widetilde{\mu} \; c_{\gamma} \; g_{1}^{2} \; \overline{y_{u}}^{\text{pil}} \; y_{u}^{\text{pil}} \; (4 \; m_{1} \; s_{\gamma} + 3 \; \widetilde{\mu} \; c_{\gamma}) \; \; \mathsf{LF}_{2,2,1,-1} \big[ m_{1} \; , \; \widetilde{\mu} \; , \; m_{q}^{\; p} \big] \; + \; \frac{1}{6} \; g_{1}^{\; 2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}}^{\text{pil}} \; y_{u}^{\; pil} \; y_{u}^{\; pil
                                                                                                                                                                                  \mathsf{LF_{2,2,1,-2}}\big[\,\mathsf{m_{1}}\,,\,\,\tilde{\mu}\,,\,\,\mathsf{m_{\tilde{u}}}^{\,\mathsf{i}\,\mathsf{1}}\,\big]\,+\,\frac{1}{6}\,\,\mathsf{m_{1}}\,\,\mathsf{s_{\gamma}}\,\,\tilde{\mu}\,\,\mathsf{c_{\gamma}}\,\,\mathsf{g_{1}}^{2}\,\,\overline{\mathsf{y_{u}}}^{\mathsf{pil}}\,\,\mathsf{y_{u}}^{\mathsf{pil}}\,\,\mathsf{LF_{2,2,1,-1}}\big[\,\mathsf{m_{1}}\,,\,\,\tilde{\mu}\,,\,\,\mathsf{m_{\tilde{u}}}^{\,\mathsf{i}\,\mathsf{1}}\,\big]\,+\,\frac{1}{6}\,\,\mathsf{m_{1}}\,\,\mathsf{s_{\gamma}}\,\,\tilde{\mu}\,\,\mathsf{c_{\gamma}}\,\,\mathsf{g_{1}}^{2}\,\,\overline{\mathsf{y_{u}}}^{\mathsf{pil}}\,\,\mathsf{y_{u}}^{\mathsf{pil}}\,\,\mathsf{LF_{2,2,1,-1}}\big[\,\mathsf{m_{1}}\,,\,\,\tilde{\mu}\,,\,\,\mathsf{m_{\tilde{u}}}^{\,\mathsf{i}\,\mathsf{1}}\,\big]\,+\,\frac{1}{6}\,\,\mathsf{m_{1}}\,\,\mathsf{s_{1}}\,\,\mathsf{m_{1}}\,\,\mathsf{s_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{1}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{m_{2}}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{i}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}^{\,\mathsf{i}\,\mathsf{m_{2}}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,\,\mathsf{m_{2}}\,
                                                                                                                                                    \left(\frac{1}{6}~g_{1}^{2}~s_{\gamma}^{2}~\overline{y_{u}}^{\text{pil}}~y_{u}^{\text{pil}}~+~\frac{1}{9}~g_{1}^{4}~\left(-\,c_{\gamma}^{\phantom{\gamma}2}+\,s_{\gamma}^{\phantom{\gamma}2}\right)~\delta_{\text{ili2}}\right)~\mathsf{LF}_{2,2,1,-2}\!\left[\mathsf{m}_{1},~\widetilde{\mu},~\mathsf{m}_{\tilde{u}}^{\phantom{\tilde{u}}^{1}2}\right]~+~\frac{1}{2}\left(-\,c_{\gamma}^{\phantom{\tilde{u}}2}+\,s_{\gamma}^{\phantom{\tilde{u}}2}\right)~\delta_{\text{ili2}}\right]
                                                                                                                                                    \frac{1}{18} \; \mathsf{m_1} \; \mathsf{g_1}^2 \; \left( 3 \; \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\boldsymbol{\mu}} \; \mathsf{c_{\scriptscriptstyle Y}} \; \overline{\mathsf{y_u}}^{\mathsf{pil}} \; \mathsf{y_u}^{\mathsf{pil}} \; + \; 2 \; \mathsf{m_1} \; \mathsf{g_1}^2 \; \left( \mathsf{c_{\scriptscriptstyle Y}}^2 - \mathsf{s_{\scriptscriptstyle Y}}^2 \right) \; \delta_{\mathsf{ili2}} \right) \; \mathsf{LF_{2,2,1,-1}} \big[ \; \mathsf{m_1} \; , \; \widetilde{\boldsymbol{\mu}} \; , \; \mathsf{m_{\tilde{u}}}^{\mathsf{il}} \, \big] \; - \; \mathsf{m_1} \; \mathsf{m_2}^{\mathsf{pil}} \; + \; \mathsf{m_2}^{\mathsf{pil}} \, \big] \; \mathsf{m_2}^{\mathsf{pil}} \; \mathsf{m_3}^{\mathsf{pil}} \; \mathsf{m_2}^{\mathsf{pil}} \, \mathsf{m_3}^{\mathsf{pil}} \, \mathsf{m_2}^{\mathsf{pil}} \, \mathsf{m_3}^{\mathsf{pil}} \, \mathsf{m_3}
                                                                                                                                                                                           g_2^2 s_{\gamma}^2 \overline{y_u}^{pi1} y_u^{pi2} LF_{2,1,1,-1}[m_2, m_{\tilde{q}}^p, \tilde{\mu}] -
                                                                                                                                                                                                \textbf{m}_{2} \; \textbf{s}_{\gamma} \; \tilde{\mu} \; \textbf{c}_{\gamma} \; \textbf{g}_{2}^{2} \; \overline{\textbf{y}_{u}}^{\text{pil}} \; \textbf{y}_{u}^{\text{pi2}} \; \textbf{LF}_{2,1,1,0} \left[ \textbf{m}_{2} \,, \; \textbf{m}_{\tilde{\textbf{q}}}^{\; p} \,, \; \tilde{\mu} \right] \; + \; \frac{3}{2} \; \textbf{g}_{2}^{\; 2} \; \textbf{s}_{\gamma}^{\; 2} \; \overline{\textbf{y}_{u}}^{\text{pi1}} \; \textbf{y}_{u}^{\text{pi2}} \; \textbf{LF}_{3,1,1,-2} \left[ \textbf{m}_{2} \,, \; \textbf{m}_{\tilde{\textbf{q}}}^{\; p} \,, \; \tilde{\mu} \right] \; + \; \frac{3}{2} \; \textbf{g}_{2}^{\; 2} \; \textbf{s}_{\gamma}^{\; 2} \; \overline{\textbf{y}_{u}}^{\text{pi1}} \; \textbf{y}_{u}^{\text{pi2}} \; \textbf{LF}_{3,1,1,-2} \left[ \textbf{m}_{2} \,, \; \textbf{m}_{\tilde{\textbf{q}}}^{\; p} \,, \; \tilde{\mu} \right] \; + \; \frac{3}{2} \; \textbf{g}_{2}^{\; 2} \; \textbf{s}_{\gamma}^{\; 2} \; \overline{\textbf{y}_{u}}^{\text{pi1}} \; \textbf{y}_{u}^{\text{pi2}} \; \textbf{LF}_{3,1,1,-2} \left[ \textbf{m}_{2} \,, \; \textbf{m}_{\tilde{\textbf{q}}}^{\; p} \,, \; \tilde{\mu} \right] \; + \; \frac{3}{2} \; \textbf{g}_{2}^{\; 2} \; \textbf{s}_{\gamma}^{\; 2} \; \overline{\textbf{y}_{u}}^{\text{pi1}} \; \textbf{y}_{u}^{\text{pi2}} \; \textbf{LF}_{3,1,1,-2} \left[ \textbf{m}_{2} \,, \; \textbf{m}_{\tilde{\textbf{q}}}^{\; p} \,, \; \tilde{\mu} \right] \; + \; \frac{3}{2} \; \textbf{g}_{2}^{\; 2} \; \textbf{s}_{\gamma}^{\; 2} \; \overline{\textbf{y}_{u}}^{\text{pi1}} \; \textbf{y}_{u}^{\text{pi2}} \; \textbf{LF}_{3,1,1,-2} \left[ \textbf{m}_{2} \,, \; \textbf{m}_{\tilde{\textbf{q}}}^{\; p} \,, \; \tilde{\mu}_{\tilde{\textbf{q}}}^{\; p} \;, \; \tilde{\mu}_{\tilde{\textbf{q}}}^{\; p} \,, \; \tilde{\mu}_{\tilde{\textbf{q}}}^{
                                                                                                                                                    \frac{3}{2}\;\mathsf{m}_2\;\mathsf{s}_{\gamma}\;\tilde{\mu}\;\mathsf{c}_{\gamma}\;\mathsf{g}_2{}^2\;\overline{\mathsf{y}_{\mathsf{u}}}^{\mathsf{pil}}\;\mathsf{y}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{LF}_{3,1,1,-1}\big[\mathsf{m}_2\,,\,\mathsf{m}_{\bar{\mathsf{q}}}{}^{\mathsf{p}}\,,\,\tilde{\mu}\big] \;+\; \frac{9}{8}\;\mathsf{g}_2{}^2\;\mathsf{s}_{\gamma}{}^2\;\overline{\mathsf{y}_{\mathsf{u}}}{}^{\mathsf{pil}}\;\mathsf{y}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{LF}_{2,2,1,-2}\big[\mathsf{m}_2\,,\,\tilde{\mu}\,,\,\mathsf{m}_{\bar{\mathsf{q}}}{}^{\mathsf{p}}\big] \;+\; \frac{9}{8}\;\mathsf{g}_2{}^2\;\mathsf{s}_{\gamma}{}^2\;\overline{\mathsf{y}_{\mathsf{u}}}{}^{\mathsf{pil}}\;\mathsf{y}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{LF}_{2,2,1,-2}\big[\mathsf{m}_2\,,\,\tilde{\mu}\,,\,\mathsf{m}_{\bar{\mathsf{q}}}{}^{\mathsf{p}}\big] \;+\; \frac{9}{8}\;\mathsf{g}_2{}^2\;\mathsf{s}_{\gamma}{}^2\;\overline{\mathsf{y}_{\mathsf{u}}}{}^{\mathsf{pil}}\;\mathsf{y}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{LF}_{2,2,1,-2}\big[\mathsf{m}_2\,,\,\tilde{\mu}\,,\,\mathsf{m}_{\bar{\mathsf{q}}}{}^{\mathsf{p}}\big] \;+\; \frac{9}{8}\;\mathsf{g}_2{}^2\;\mathsf{g}_2{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{pil}}\;\mathsf{v}_{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}}{}^{\mathsf{u}
                                                                                                                                                                                           \widetilde{\mu}~c_{\gamma}~g_{2}^{~2}~\overline{y_{u}}^{\text{pil}}~y_{u}^{~\text{pil}}~(4~\text{m}_{2}~s_{\gamma}^{~}+\widetilde{\mu}~c_{\gamma}^{~})~\text{LF}_{2,2,1,-1}^{~}\big[\,\text{m}_{2}^{~},~\widetilde{\mu}^{~},~\text{m}_{\bar{q}}^{~}^{\,}^{\,}\big]~+
                                                                                                                                                                                                \textbf{m_3} \; \textbf{s_{\gamma}} \; \textbf{g_3}^2 \; \textbf{y_u}^{\texttt{pi2}} \; \left( - \, \textbf{s_{\gamma}} \; \overline{\textbf{a_u}}^{\texttt{pi1}} + \widetilde{\mu} \; \textbf{c_{\gamma}} \; \overline{\textbf{y_u}}^{\texttt{pi1}} \right) \; \textbf{LF_{2,1,1,0}} \left[ \, \textbf{m_3} \, , \; \textbf{m_{\tilde{q}}}^{\texttt{p}} \, , \; \textbf{m_{\tilde{u}}}^{\texttt{i1}} \, \right] \; + \\
                                                                                                                                                                                           \text{m}_{3} \text{ s}_{\gamma} \text{ g}_{3}^{\text{ 2}} \text{ y}_{u}^{\text{ pi2}} \text{ } \left( - \text{ s}_{\gamma} \text{ } \overline{\text{a}_{u}}^{\text{ pi1}} + \widetilde{\mu} \text{ c}_{\gamma} \text{ } \overline{\text{y}_{u}}^{\text{ pi1}} \right) \text{ LF}_{2,2,1,-1} \big[ \text{m}_{3} \text{ , m}_{\tilde{q}}^{\text{ p}} \text{ , m}_{\tilde{u}}^{\text{ i1}} \big] \text{ } +
                                                                                                                                                                                           \textbf{m}_{3} \; \textbf{s}_{\gamma} \; \textbf{g}_{3}^{\; 2} \; \textbf{y}_{u}^{\; \text{pi2}} \; \left( \textbf{s}_{\gamma} \; \overline{\textbf{a}_{u}}^{\; \text{pi1}} - \widetilde{\mu} \; \textbf{c}_{\gamma} \; \overline{\textbf{y}_{u}}^{\; \text{pi1}} \right) \; \textbf{LF}_{\textbf{3,1,1,-1}} \big[ \, \textbf{m}_{\textbf{3}} \, , \; \textbf{m}_{\tilde{\textbf{q}}}^{\; \, \textbf{p}} \, , \; \textbf{m}_{\tilde{\textbf{u}}}^{\; \, \, \, \textbf{i}} \big] \; + \\
                                                                                                                                                                                           \text{m}_{3} \; \text{s}_{\gamma} \; \text{g}_{3}{}^{2} \; \overline{\text{y}_{u}}{}^{\text{pil}} \; \left( - \, \text{s}_{\gamma} \; a_{u}{}^{\text{pil}} + \widetilde{\mu} \; \text{c}_{\gamma} \; \text{y}_{u}{}^{\text{pil}} \right) \; \text{LF}_{2,\text{l,l,0}} \big[ \, \text{m}_{3} \, , \; \text{m}_{\tilde{q}}{}^{\text{p}} \, , \; \text{m}_{\tilde{u}}{}^{\text{il}} \, \big] \; + \\
                                                                                                                                                                                                \mathsf{m_{3}}\;\mathsf{s_{\gamma}}\;\mathsf{g_{3}}^{2}\;\overline{\mathsf{y_{u}}}^{\text{pil}}\;\left(-\,\mathsf{s_{\gamma}}\;\mathsf{a_{u}}^{\text{pi2}}+\widetilde{\mu}\;\mathsf{c_{\gamma}}\;\mathsf{y_{u}}^{\text{pi2}}\right)\;\mathsf{LF_{2,2,1,-1}}\!\left[\mathsf{m_{3}}\;,\;\mathsf{m_{\tilde{q}}}^{\text{p}}\;,\;\mathsf{m_{\tilde{u}}}^{\text{i2}}\right]\;+
                                                                                                                                                                                                \mathsf{m_{3}}\;\mathsf{s_{\gamma}}\;\mathsf{g_{3}}^{2}\;\overline{\mathsf{y_{u}}}^{\mathsf{pil}}\;\left(\mathsf{s_{\gamma}}\;\mathsf{a_{u}}^{\mathsf{pi2}}-\tilde{\mu}\;\mathsf{c_{\gamma}}\;\mathsf{y_{u}}^{\mathsf{pi2}}\right)\;\mathsf{LF_{3,1,1,-1}}\big[\mathsf{m_{3}}\;,\;\mathsf{m_{\tilde{q}}}^{\mathsf{p}}\;,\;\mathsf{m_{\tilde{u}}}^{\mathsf{i2}}\big]\;+\;
                                                                                                                                                    \frac{1}{2}\,\,m_3\,\,s_\gamma\,\,g_3^{\,2}\,\,y_u^{\,\text{pi2}}\,\left(\,s_\gamma\,\,\overline{a_u}^{\,\text{pi1}}\,-\,\widetilde{\mu}\,\,c_\gamma\,\,\overline{y_u}^{\,\text{pi1}}\right)\,\,\mathsf{LF}_{2,2,1,,-1}\!\left[\,m_3\,,\,\,m_{\tilde{u}}^{\,\,\text{ii}},\,\,m_{\tilde{q}}^{\,\,\tilde{p}}\,\right]\,+\,\,c_\gamma\,\,\overline{y_u}^{\,\,\text{pi1}}
                                                                                                                                                    \frac{1}{3}\;\mathsf{m_3}\;\mathsf{s_\gamma}\;\mathsf{g_3}^2\;\overline{\mathsf{y_u}}^{\text{pil}}\;\left(\mathsf{s_\gamma}\;\mathsf{a_u}^{\text{pi2}}-\widetilde{\mu}\;\mathsf{c_\gamma}\;\mathsf{y_u}^{\text{pi2}}\right)\;\mathsf{LF_{2,2,1,-1}}\!\left[\mathsf{m_3}\;,\;\mathsf{m_{\tilde{u}}}^{\text{i2}}\;,\;\mathsf{m_{\tilde{q}}}^{\text{p}}\right]\;+
                                                                                                                                                                                                s_{\scriptscriptstyle Y}\,\widetilde{\mu}\,\,y_{d}^{\,\text{sr}}\,\,\overline{y_{u}}^{\text{sil}}\,\,y_{u}^{\,\text{pil}}\,\left(c_{\scriptscriptstyle Y}\,\,\overline{a_{d}}^{\text{pr}}\,-\,s_{\scriptscriptstyle Y}\,\widetilde{\mu}\,\,\overline{y_{d}}^{\text{pr}}\right)\,\,\mathsf{LF}_{2,2,1,-1}\big[\,\mathsf{m}_{d}^{\,\text{r}}\,,\,\,\widetilde{\mu}\,,\,\,\mathsf{m}_{\tilde{q}}^{\,\text{p}}\,\big]\,\,+\,\,\mathsf{m}_{\tilde{q}}^{\,\text{pr}}\,\,
                                                                                                                                                                                           s_{\gamma}\,\widetilde{\mu}\,\overline{y_{d}}^{\text{pr}}\,\overline{y_{u}}^{\text{sil}}\,y_{u}^{\text{pi2}}\,\left(c_{\gamma}\,a_{d}^{\text{sr}}-s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\text{sr}}\right)\,\mathsf{LF}_{2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{q}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{d}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\widetilde{\mu},\,\mathsf{m}_{\bar{d}}^{\text{s}}\big]\,+\,\mathsf{LF}_{2,2,2,1,-1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\mathsf{m}_{\bar{d}}^{\text{r}}\big]\,+\,\mathsf{LF}_{2,2,2,2,1}\big[\mathsf{m}_{\bar{d}}^{\text{r}},\,\mathsf{m}_{\bar{d}}^{\text{r}}\big]\,+\,\mathsf{LF}_{2,2,2,2,2}\big[\mathsf{m}_{\bar{d}}^{\text{r}}\big]\,+\,\mathsf{LF}_{2,2,2,2}\big[\mathsf{m}_{\bar{d}}^{\text{r}}\big]\,+\,\mathsf{LF}_{2,2,2}\big[\mathsf{m}_{\bar{d}}^{\text{r}}\big]\,+\,\mathsf{LF}_{2,2,2}\big[\mathsf{m}_{\bar{d}}^{\text{r}}\big]\,+\,\mathsf{LF}_{2,2,2}\big[\mathsf{m}_{\bar{d}}^{\text{r}}\big]\,+\,\mathsf{LF}_{2,2,2}\big[\mathsf{m}_{\bar{d}}^{\text{r}}\big]\,+\,\mathsf{LF}_{2,2,2}\big[\mathsf{m}_{\bar{d}}^{\text{r}}\big]\,+\,\mathsf{LF}_{2,2,2}\big[\mathsf{m}_{\bar{d}}^{\text{r}}\big]\,+\,\mathsf{LF}_{2,2,2}\big[\mathsf{m}_{\bar{d}}^{\text{r}}\big]\,+\,\mathsf{LF}_{2,2,2}\big[\mathsf{m}_{\bar{d}}^{\text{r}}\big]\,+\,\mathsf{LF}_{2,2,2}\big[\mathsf{m}_{\bar{d}}^{\text{r}}\big]\,+\,\mathsf{LF}_{2,2,2}
                                                                                                                                                                                                s_{\scriptscriptstyle Y}\,\tilde{\mu}\,y_{\scriptscriptstyle d}{}^{\textrm{sr}}\,\overline{y_{\scriptscriptstyle u}}{}^{\textrm{sil}}\,y_{\scriptscriptstyle u}{}^{\textrm{pi2}}\,\left(-\,c_{\scriptscriptstyle Y}\,\overline{a_{\scriptscriptstyle d}}{}^{\textrm{pr}}\,+\,s_{\scriptscriptstyle Y}\,\tilde{\mu}\,\overline{y_{\scriptscriptstyle d}}{}^{\textrm{pr}}\right)\,\mathsf{LF}_{2,2,1,-1}\!\left[\mathfrak{m}_{\bar{\mathsf{q}}}{}^{\textrm{p}},\,\tilde{\mu},\,\mathfrak{m}_{\bar{\mathsf{d}}}{}^{\textrm{r}}\right]\,+\,s_{\scriptscriptstyle Y}\,\tilde{\mu}\,\overline{y_{\scriptscriptstyle d}}{}^{\textrm{pr}}\right)\,\mathsf{LF}_{2,2,1,-1}\left[\mathfrak{m}_{\bar{\mathsf{q}}}{}^{\textrm{pr}},\,\tilde{\mu},\,\mathfrak{m}_{\bar{\mathsf{d}}}{}^{\textrm{r}}\right]\,+\,s_{\scriptscriptstyle Y}\,\tilde{\mu}\,\overline{y_{\scriptscriptstyle d}}{}^{\textrm{pr}}\right]
                                                                                                                                                                                                g_{1}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{\text{pil}}\; y_{u}{}^{\text{pil}}\; LF_{2,1,1,-1}\big[\,\widetilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{q}}{}^{\text{p}}\,\big] \; - \; \frac{1}{4}\; g_{1}{}^{2}\; \widetilde{\mu}^{2}\; c_{\gamma}{}^{2}\; \overline{y_{u}}{}^{\text{pil}}\; y_{u}{}^{\text{pil}}\; LF_{2,1,1,0}\big[\,\widetilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{q}}{}^{\text{p}}\,\big] \; - \; \frac{1}{4}\; g_{1}{}^{2}\; \widetilde{\mu}^{2}\; c_{\gamma}{}^{2}\; \overline{y_{u}}{}^{\text{pil}}\; y_{u}{}^{\text{pil}}\; LF_{2,1,1,0}\big[\,\widetilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{q}}{}^{\text{p}}\,\big] \; - \; \frac{1}{4}\; g_{1}{}^{2}\; \widetilde{\mu}^{2}\; c_{\gamma}{}^{2}\; \overline{y_{u}}{}^{\text{pil}}\; y_{u}{}^{\text{pil}}\; LF_{2,1,1,0}\big[\,\widetilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{q}}{}^{\text{p}}\,\big] \; - \; \frac{1}{4}\; g_{1}{}^{2}\; \widetilde{\mu}^{2}\; c_{\gamma}{}^{2}\; \overline{y_{u}}{}^{\text{pil}}\; y_{u}{}^{\text{pil}}\; LF_{2,1,1,0}\big[\,\widetilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{q}}{}^{\text{p}}\,\big] \; - \; \frac{1}{4}\; g_{1}{}^{2}\; \widetilde{\mu}^{2}\; c_{\gamma}{}^{2}\; \overline{y_{u}}{}^{\text{pil}}\; y_{u}{}^{\text{pil}}\; F_{2,1,1,0}\big[\,\widetilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{q}}{}^{\text{p}}\,\big] \; - \; \frac{1}{4}\; g_{1}{}^{2}\; \widetilde{\mu}^{2}\; c_{\gamma}{}^{2}\; \overline{y_{u}}\; F_{2,1,1,1,0}\big[\,\widetilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{q}}\,,\; m_{1}\,,\; m_{1
                                                                                                                                                                                           g_{1}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{pi1}\;y_{u}{}^{pi2}\;\mathsf{LF}_{2,1,1,-1}\big[\tilde{\mu}\,,\;m_{1}\,,\;m_{\bar{u}}{}^{i1}\big]\;-\;\frac{1}{3}\;m_{1}\;s_{\gamma}\;\tilde{\mu}\;c_{\gamma}\;g_{1}{}^{2}\;\overline{y_{u}}{}^{pi1}\;y_{u}{}^{pi2}\;\mathsf{LF}_{2,1,1,0}\big[\tilde{\mu}\,,\;m_{1}\,,\;m_{\bar{u}}{}^{i1}\big]\;+\;\frac{1}{3}\;m_{1}\;s_{\gamma}\;\tilde{\mu}\;c_{\gamma}\;g_{1}{}^{2}\;\overline{y_{u}}{}^{pi1}\;y_{u}{}^{pi2}\;\mathsf{LF}_{2,1,1,0}\big[\tilde{\mu}\,,\;m_{1}\,,\;m_{\bar{u}}{}^{i1}\big]\;+\;\frac{1}{3}\;m_{1}\;s_{\gamma}\;\tilde{\mu}\;c_{\gamma}\;g_{1}{}^{2}\;\overline{y_{u}}{}^{pi1}\;y_{u}{}^{pi2}\;\mathsf{LF}_{2,1,1,0}\big[\tilde{\mu}\,,\;m_{1}\,,\;m_{\bar{u}}{}^{i1}\big]\;+\;\frac{1}{3}\;m_{1}\;s_{\gamma}\;\tilde{\mu}\;c_{\gamma}\;g_{1}{}^{2}\;\overline{y_{u}}{}^{pi1}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2
                                                                                                                                                    \frac{1}{3} \ g_1^{\ 2} \ s_{\gamma}^{\ 2} \ \overline{y_u}^{\text{pil}} \ y_u^{\text{pil}} \ LF_{3,1,1,-2} \big[ \widetilde{\mu} \text{, m}_1 \text{, m}_{\tilde{u}}^{\text{il}} \big] \ + \\ \frac{1}{3} \ m_1 \ s_{\gamma} \ \widetilde{\mu} \ c_{\gamma} \ g_1^{\ 2} \ \overline{y_u}^{\text{pil}} \ y_u^{\text{pil}} \ LF_{3,1,1,-1} \big[ \widetilde{\mu} \text{, m}_1 \text{, m}_{\tilde{u}}^{\text{il}} \big] \ - \\ \frac{1}{3} \ m_1 \ s_{\gamma} \ \widetilde{\mu} \ c_{\gamma} \ g_1^{\ 2} \ \overline{y_u}^{\text{pil}} \ y_u^{\text{pil}} \ LF_{3,1,1,-1} \big[ \widetilde{\mu} \text{, m}_1 \text{, m}_{\tilde{u}}^{\text{il}} \big] \ - \\ \frac{1}{3} \ m_1 \ s_{\gamma} \ \widetilde{\mu} \ c_{\gamma} \ g_1^{\ 2} \ \overline{y_u}^{\text{pil}} \ y_u^{\text{pil}} \ LF_{3,1,1,-1} \big[ \widetilde{\mu} \text{, m}_1 \text{, m}_{\tilde{u}}^{\text{il}} \big] \ - \\ \frac{1}{3} \ m_1 \ s_{\gamma} \ \widetilde{\mu} \ c_{\gamma} \ g_1^{\ 2} \ \overline{y_u}^{\text{pil}} \ y_u^{\text{pil}} \ LF_{3,1,1,-1} \big[ \widetilde{\mu} \text{, m}_1 \text{, m}_{\tilde{u}}^{\text{il}} \big] \ - \\ \frac{1}{3} \ m_1 \ s_{\gamma} \ \widetilde{\mu} \ c_{\gamma} \ g_1^{\ 2} \ \overline{y_u}^{\text{pil}} \ y_u^{\text{pil}} \ z_u^{\text{pil}} \ LF_{3,1,1,-1} \big[ \widetilde{\mu} \text{, m}_1 \text{, m}_{\tilde{u}}^{\text{il}} \big] \ - \\ \frac{1}{3} \ m_1 \ s_{\gamma} \ \widetilde{\mu} \ c_{\gamma} \ g_1^{\ 2} \ \overline{y_u}^{\text{pil}} \ y_u^{\text{pil}} \ z_u^{\text{pil}} \ z_u^
                                                                                                                                                    \frac{1}{2} \; \mathsf{g_1}^2 \; \mathsf{s_\gamma}^2 \; \overline{\mathsf{y_u}}^{\mathsf{pil}} \; \mathsf{y_u}^{\mathsf{pil}} \; \mathsf{LF_{2,1,1,-1}} \big[ \, \widetilde{\boldsymbol{\mu}} \,, \; \mathsf{m_1} \,, \; \mathsf{m_{\tilde{u}}}^{\mathsf{i}2} \big] \; - \; \frac{1}{3} \; \mathsf{m_1} \; \mathsf{s_\gamma} \; \widetilde{\boldsymbol{\mu}} \; \mathsf{c_\gamma} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{pil}} \; \mathsf{y_u}^{\mathsf{pil}} \; \mathsf{LF_{2,1,1,0}} \big[ \, \widetilde{\boldsymbol{\mu}} \,, \; \mathsf{m_1} \,, \; \mathsf{m_{\tilde{u}}}^{\mathsf{i}2} \big] \; + \; \frac{1}{3} \; \mathsf{m_1} \; \mathsf{s_\gamma} \; \widetilde{\boldsymbol{\mu}} \; \mathsf{c_\gamma} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{pil}} \; \mathsf{y_u}^{\mathsf{pil}} \; \mathsf{LF_{2,1,1,0}} \big[ \, \widetilde{\boldsymbol{\mu}} \,, \; \mathsf{m_1} \,, \; \mathsf{m_{\tilde{u}}}^{\mathsf{i}2} \big] \; + \; \frac{1}{3} \; \mathsf{m_1} \; \mathsf{s_\gamma} \; \widetilde{\boldsymbol{\mu}} \; \mathsf{c_\gamma} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{pil}} \; \mathsf{y_u}^{\mathsf{pil}} \; \mathsf{LF_{2,1,1,0}} \big[ \, \widetilde{\boldsymbol{\mu}} \,, \; \mathsf{m_1} \,, \; \mathsf{m_{\tilde{u}}}^{\mathsf{i}2} \big] \; + \; \frac{1}{3} \; \mathsf{m_1} \; \mathsf{s_\gamma} \; \widetilde{\boldsymbol{\mu}} \; \mathsf{c_\gamma} \; \mathsf{g_1}^2 \; \mathsf{g_2} \; \mathsf{g_2}^{\mathsf{pil}} \; \mathsf{g_2} \; \mathsf{g_2}^{\mathsf{pil}} \; \mathsf{g_2}^{\mathsf
                                                                                                                                                                                           g_{1}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{pi1}\; y_{u}{}^{pi2}\; LF_{3,1,1,-2}\!\left[\tilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{u}}{}^{i2}\right] \,+\, \frac{1}{3}\; m_{1}\; s_{\gamma}\; \tilde{\mu}\; c_{\gamma}\; g_{1}{}^{2}\; \overline{y_{u}}{}^{pi1}\; y_{u}{}^{pi2}\; LF_{3,1,1,-1}\!\left[\tilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{u}}{}^{i2}\right] \,+\, \frac{1}{3}\; m_{1}\; s_{\gamma}\; \tilde{\mu}\; c_{\gamma}\; g_{1}{}^{2}\; \overline{y_{u}}{}^{pi1}\; y_{u}{}^{pi2}\; LF_{3,1,1,-1}\!\left[\tilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{u}}{}^{i2}\right] \,+\, \frac{1}{3}\; m_{1}\; s_{\gamma}\; \tilde{\mu}\; c_{\gamma}\; g_{1}{}^{2}\; \overline{y_{u}}{}^{pi1}\; y_{u}{}^{pi2}\; LF_{3,1,1,-1}\!\left[\tilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{u}}{}^{i2}\right] \,+\, \frac{1}{3}\; m_{1}\; s_{\gamma}\; \tilde{\mu}\; c_{\gamma}\; g_{1}{}^{2}\; \overline{y_{u}}{}^{pi1}\; y_{u}{}^{pi2}\; LF_{3,1,1,-1}\!\left[\tilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{u}}{}^{i2}\right] \,+\, \frac{1}{3}\; m_{1}\; s_{\gamma}\; \tilde{\mu}\; c_{\gamma}\; g_{1}{}^{2}\; \overline{y_{u}}{}^{pi1}\; y_{u}{}^{pi2}\; LF_{3,1,1,-1}\!\left[\tilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{u}}{}^{i2}\right] \,+\, \frac{1}{3}\; m_{1}\; s_{\gamma}\; \tilde{\mu}\; c_{\gamma}\; g_{1}{}^{2}\; \overline{y_{u}}{}^{pi1}\; y_{u}{}^{pi2}\; LF_{3,1,1,-1}\!\left[\tilde{\mu}\,,\; m_{1}\,,\; m_{\tilde{u}}{}^{i2}\right] \,+\, \frac{1}{3}\; m_{1}\; s_{\gamma}\; \tilde{\mu}\; c_{\gamma}\; g_{1}{}^{2}\; \overline{y_{u}}\; \overline{y_{u}}\;
                                                                                                                                                    s_{\scriptscriptstyle \Upsilon}\,\widetilde{\mu}\,y_{\scriptscriptstyle d}{}^{\textrm{sr}}\,\overline{y_{\scriptscriptstyle u}}{}^{\textrm{sil}}\,y_{\scriptscriptstyle u}{}^{\textrm{pi2}}\,\left(c_{\scriptscriptstyle \Upsilon}\,\overline{a_{\scriptscriptstyle d}}{}^{\textrm{pr}}-s_{\scriptscriptstyle \Upsilon}\,\widetilde{\mu}\,\overline{y_{\scriptscriptstyle d}}{}^{\textrm{pr}}\right)\,\mathsf{LF}_{2,1,1,0}\!\left[\widetilde{\mu}\,,\,\mathfrak{m}_{\check{\scriptscriptstyle d}}{}^{\textrm{r}}\,,\,\mathfrak{m}_{\check{\scriptscriptstyle q}}{}^{\textrm{p}}\right]\,+\,\,\mathsf{LF}_{2,1,1,0}\left[\widetilde{\mu}\,,\,\mathfrak{m}_{\check{\scriptscriptstyle d}}{}^{\textrm{r}}\,,\,\mathfrak{m}_{\check{\scriptscriptstyle q}}{}^{\textrm{p}}\right]
                                                                                                                                                                                       s_{\gamma}\,\widetilde{\mu}\,\,y_{d}{}^{\text{sr}}\,\overline{y_{u}}{}^{\text{sil}}\,y_{u}{}^{\text{pil}}\,\left(-\,c_{\gamma}\,\overline{a_{d}}{}^{\text{pr}}\,+\,s_{\gamma}\,\widetilde{\mu}\,\overline{y_{d}}{}^{\text{pr}}\right)\,\,\text{LF}_{3,1,1,-1}\big[\widetilde{\mu}\,,\,m_{\tilde{d}}{}^{\text{r}}\,,\,m_{\tilde{q}}{}^{\text{p}}\big]\,\,+\,\,
                                                                                                                                                                                           \mathsf{s}_{\scriptscriptstyle Y}\,\widetilde{\mu}\,\overline{\mathsf{y}_{\mathsf{d}}}^{\mathsf{pr}}\,\overline{\mathsf{y}_{\mathsf{u}}}^{\mathsf{sil}}\,\mathsf{y}_{\mathsf{u}}^{\mathsf{pil}}\,\left(\mathsf{c}_{\scriptscriptstyle Y}\,\mathsf{a}_{\mathsf{d}}^{\mathsf{sr}}-\mathsf{s}_{\scriptscriptstyle Y}\,\widetilde{\mu}\,\mathsf{y}_{\mathsf{d}}^{\mathsf{sr}}\right)\,\mathsf{LF}_{\mathsf{2,1,1,0}}\big[\widetilde{\mu}\,,\,\mathfrak{m}_{\check{\mathsf{d}}}^{\phantom{\mathsf{r}}}^{\phantom{\mathsf{r}}},\,\mathfrak{m}_{\check{\mathsf{q}}}^{\phantom{\mathsf{s}}}^{\mathsf{s}}\big]\,+\,\mathsf{s}_{\mathsf{d}}^{\mathsf{s}}\,\mathsf{v}_{\mathsf{d}}^{\mathsf{sr}},\,\mathsf{s}_{\mathsf{d}}^{\mathsf{s}}^{\mathsf{s}},\,\mathsf{s}_{\mathsf{d}}^{\mathsf{s}}^{\mathsf{s}}\big]
                                                                                                                                                \frac{1}{4} \, s_{\gamma} \, \widetilde{\mu} \, \overline{y_{d}}^{pr} \, \overline{y_{u}}^{si1} \, y_{u}^{pi2} \, \left( - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \right) \, \mathsf{LF}_{3,1,1,-1} \big[ \, \widetilde{\mu} \, , \, \, \mathsf{m_{\tilde{q}}}^{\, \, r} \, , \, \, \mathsf{m_{\tilde{q}}}^{\, s} \, \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big) \, \mathsf{LF}_{3,1,1,-1} \big[ \, \widetilde{\mu} \, , \, \, \mathsf{m_{\tilde{q}}}^{\, \, r} \, , \, \, \mathsf{m_{\tilde{q}}}^{\, \, s} \, \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{d}^{\, sr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, sr} \big] \, - \, c_{\gamma} \, a_{\alpha} \, \gamma_{\alpha} \, 
                                                                                                                                                    \frac{1}{6}~g_1^{~2}~y_u^{~pi2}~(m_1~s_\gamma-\widetilde{\mu}~c_\gamma)~\left(s_\gamma~\overline{a_u}^{pi1}-\widetilde{\mu}~c_\gamma~\overline{y_u}^{pi1}\right)~\mathsf{LF_{1,1,1,1,0}}\left[m_1,~m_{\tilde{q}}^{~p},~m_{\tilde{u}}^{~i1},~\widetilde{\mu}\right]~-
                                                                                                                                                    \frac{1}{12} \; g_{1}^{\; 2} \; y_{u}^{\; p \dot{1} \, 2} \; \left( \; m_{1} \; s_{\gamma} \; + \; \widetilde{\mu} \; c_{\gamma} \right) \; \left( \; s_{\gamma} \; \overline{a_{u}}^{\; p \dot{1}} \; - \; \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; p \dot{1}} \right) \; LF_{2,1,1,1,-1} \left[ \; m_{1} \; , \; m_{\tilde{q}}^{\; p} \; , \; m_{\tilde{u}}^{\; \dot{1}} \; , \; \widetilde{\mu} \; \right] \; - \; \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; p \dot{1}} \; .
                                                                                                                                                    \frac{1}{6} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{\text{pil}} \ (\text{m}_{1} \ \text{s}_{\gamma} - \widetilde{\mu} \ \text{c}_{\gamma}) \ \left(\text{s}_{\gamma} \ \text{a}_{u}{}^{\text{pi2}} - \widetilde{\mu} \ \text{c}_{\gamma} \ \text{y}_{u}{}^{\text{pi2}}\right) \ \text{LF}_{1,1,1,1,0} \left[\,\text{m}_{1} \,,\, \text{m}_{\tilde{q}}{}^{\text{p}} \,,\, \text{m}_{\tilde{u}}{}^{\text{i2}} \,,\, \widetilde{\mu}\,\right] - \left(\text{m}_{1} \,,\, \text{m}_{\tilde{q}}{}^{\text{p}} \,,\, \text{m}_{\tilde{u}}{}^{\text{i2}} \,,\, \widetilde{\mu}\,\right) \ \text{m}_{\tilde{q}}{}^{\text{p}} \,,\, \text{m}_{\tilde{u}}{}^{\text{i2}} \,,\, \widetilde{\mu} \,,\, \widetilde
                                                                                                                                                    \frac{1}{12} \ g_{1}^{\ 2} \ \overline{y_{u}}^{\text{pil}} \ \left( \ m_{1} \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma} \right) \ \left( s_{\gamma} \ a_{u}^{\text{pil}} - \widetilde{\mu} \ c_{\gamma} \ y_{u}^{\text{pil}} \right) \ \mathsf{LF}_{2,1,1,1,-1} \big[ \ m_{1} \ , \ m_{\bar{q}}^{\ \bar{p}} \ , \ m_{\bar{u}}^{\ \bar{12}} \ , \ \widetilde{\mu} \big] \ - \widetilde{\mu} \ c_{\gamma} \ y_{u}^{\text{pil}} + \widetilde{\mu} \ c_{\gamma} \ , \ \widetilde{\mu} \ c_{\gamma} 
                                                                                                                                                    \frac{1}{4}\overline{y_u}^{\text{sil}}\,y_u^{\text{pil}}\left(c_{\gamma}\,\overline{a_d}^{\text{pr}}-s_{\gamma}\,\widetilde{\mu}\,\overline{y_d}^{\text{pr}}\right)\,\left(c_{\gamma}\,a_d^{\text{sr}}-s_{\gamma}\,\widetilde{\mu}\,y_d^{\text{sr}}\right)\,\mathsf{LF_{2,1,1,1,-1}}\!\left[\mathsf{m}_{\bar{d}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-p}},\,\mathsf{m}_{\bar{q}}^{\text{-s}},\,\widetilde{\mu}\right]+\frac{1}{4}\overline{y_u}^{\text{sil}}\,y_u^{\text{pil}}\left(c_{\gamma}\,a_d^{\text{-sr}}-s_{\gamma}\,\widetilde{\mu}\,y_d^{\text{-sr}}\right)\,\mathsf{LF_{2,1,1,1,1,-1}}\!\left[\mathsf{m}_{\bar{d}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-p}},\,\mathsf{m}_{\bar{q}}^{\text{-s}},\,\widetilde{\mu}\right]+\frac{1}{4}\overline{y_u^{\text{-sil}}}\left[\mathsf{m}_{\bar{d}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}}\right]+\frac{1}{4}\overline{y_u^{\text{-r}}}\left[\mathsf{m}_{\bar{d}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{m}_{\bar{q}}^{\text{-r}},\,\mathsf{
                                                                                                                                                    \frac{1}{12}~g_1^{~2}~y_u^{~pi2}~(m_1~s_\gamma + \widetilde{\mu}~c_\gamma)~\left(s_\gamma~\overline{a_u}^{pi1} - \widetilde{\mu}~c_\gamma~\overline{y_u}^{pi1}\right)~\mathsf{LF}_{2,1,1,1,-1}\left[m_{\bar{q}}^{~p},~m_1,~m_{\bar{u}}^{~i1},~\widetilde{\mu}\right] - \widetilde{\mu}^{~2}~c_\gamma~\overline{y_u}^{pi1}
                                                                                                                                                                                           g_1^2 \left( \mathsf{s}_{\gamma} \, \overline{\mathsf{a}_{\mathsf{u}}}^{\mathsf{pil}} - \widetilde{\mu} \, \mathsf{c}_{\gamma} \, \overline{\mathsf{y}_{\mathsf{u}}}^{\mathsf{pil}} \right) \, \left( \mathsf{s}_{\gamma} \, \mathsf{a}_{\mathsf{u}}^{\mathsf{pi2}} - \widetilde{\mu} \, \mathsf{c}_{\gamma} \, \mathsf{y}_{\mathsf{u}}^{\mathsf{pi2}} \right) \, \mathsf{LF}_{2,1,1,1,-1} \big[ \, \mathsf{m}_{\bar{\mathsf{q}}}^{-\bar{\mathsf{p}}} \,, \, \, \mathsf{m}_{1} \,, \, \, \mathsf{m}_{\bar{\mathsf{u}}}^{-\bar{\mathsf{i}}2} \,, \, \, \mathsf{m}_{\bar{\mathsf{u}}}^{-\bar{\mathsf{i}}1} \big] \, + \, \mathsf{m}_{\bar{\mathsf{u}}}^{-\bar{\mathsf{i}}2} \,, \, \, \mathsf{m}_{\bar{\mathsf{u}}}^{-\bar{\mathsf{i}}2} 
                                                                                                                                                \frac{1}{12} \; g_{1}^{\; 2} \; \overline{y_{u}}^{\text{pil}} \; \left( \, m_{1} \; s_{\gamma} + \widetilde{\mu} \; c_{\gamma} \, \right) \; \left( \, s_{\gamma} \; a_{u}^{\; \text{pi2}} - \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{pi2}} \right) \; \text{LF}_{2,1,1,1,-1} \left[ \, m_{\bar{q}}^{\; \, p} \, , \; m_{1} \, , \; m_{\bar{u}}^{\; \, \, i2} \, , \; \widetilde{\mu} \, \right] \; - \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \, pi2} \; .
                                                                                                                                                                                           g_3^2 \left( s_{\gamma} \, \overline{a_u}^{\text{pil}} - \widetilde{\mu} \, c_{\gamma} \, \overline{y_u}^{\text{pil}} \right) \left( s_{\gamma} \, a_u^{\text{pi2}} - \widetilde{\mu} \, c_{\gamma} \, y_u^{\text{pi2}} \right) \, \mathsf{LF}_{2,1,1,1,-1} \big[ \, \mathsf{m}_{\bar{\mathsf{q}}}^{\,\, \mathsf{p}} \,, \, \, \mathsf{m}_3 \,, \, \, \mathsf{m}_{\bar{\mathsf{u}}}^{\,\, \mathsf{ii}} \,, \, \, \mathsf{m}_{\bar{\mathsf{u}}}^{\,\, \mathsf{ii}} \big] \, + \, c_{\gamma} \, \mathsf{m}_{\bar{\mathsf{q}}}^{\,\, \mathsf{ii}} \,, \, \mathsf{m}_{\bar{\mathsf{u}}}^{\,\, \mathsf{ii}} \,, \, \, \mathsf{ii} \,, \, \,
                                                                                                                                                                                                s_{\gamma}\,\overline{y_{u}}^{\text{sil}}\,y_{u}^{\,\text{pi2}}\,\overline{a_{u}}^{\text{pr}}\,\left(s_{\gamma}\,a_{u}^{\,\text{sr}}-\widetilde{\mu}\,c_{\gamma}\,y_{u}^{\,\text{sr}}\right)\,\mathsf{LF}_{2,1,1,1,-1}\!\left[\mathsf{m}_{\widetilde{u}}^{\,\text{r}}\,,\,\mathsf{m}_{\widetilde{q}}^{\,\text{p}}\,,\,\mathsf{m}_{\widetilde{q}}^{\,\text{s}}\,,\,\widetilde{\mu}\right]\,+\,\mathsf{m}_{\widetilde{q}}^{\,\text{sol}}\,\left(s_{\gamma}\,a_{u}^{\,\text{sr}}-\widetilde{\mu}\,c_{\gamma}\,y_{u}^{\,\text{sr}}\right)\,\mathsf{LF}_{2,1,1,1,-1}\!\left[\mathsf{m}_{\widetilde{u}}^{\,\text{r}}\,,\,\mathsf{m}_{\widetilde{q}}^{\,\text{p}}\,,\,\mathsf{m}_{\widetilde{q}}^{\,\text{s}}\,,\,\widetilde{\mu}\right]\,+\,\mathsf{m}_{\widetilde{q}}^{\,\text{sol}}\,\left(s_{\gamma}\,a_{u}^{\,\text{sr}}-\widetilde{\mu}\,c_{\gamma}\,y_{u}^{\,\text{sr}}\right)\,\mathsf{LF}_{2,1,1,1,-1}\!\left[\mathsf{m}_{\widetilde{u}}^{\,\text{r}}\,,\,\mathsf{m}_{\widetilde{q}}^{\,\text{p}}\,,\,\mathsf{m}_{\widetilde{q}}^{\,\text{sol}}\,,\,\widetilde{\mu}\right]\,+\,\mathsf{m}_{\widetilde{q}}^{\,\text{sol}}\,\left(s_{\gamma}\,a_{u}^{\,\text{sr}}-\widetilde{\mu}\,c_{\gamma}\,y_{u}^{\,\text{sr}}\right)\,\mathsf{LF}_{2,1,1,1,-1}\!\left[\mathsf{m}_{\widetilde{u}}^{\,\text{r}}\,,\,\mathsf{m}_{\widetilde{q}}^{\,\text{sol}}\,,\,\mathsf{m}_{\widetilde{q}}^{\,\text{sol}}\,,\,\widetilde{\mu}\right]\,+\,\mathsf{m}_{\widetilde{q}}^{\,\text{sol}}\,\left(s_{\gamma}\,a_{u}^{\,\text{sol}}-\widetilde{\mu}\,a_{u}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\right)\,\mathsf{LF}_{2,1,1,1,1,1}\!\left[\mathsf{m}_{\widetilde{u}}^{\,\text{sol}}\,,\,\mathsf{m}_{\widetilde{q}}^{\,\text{sol}}\,,\,\mathsf{m}_{\widetilde{q}}^{\,\text{sol}}\,,\,\widetilde{\mu}\right]\,+\,\mathsf{m}_{\widetilde{q}}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}\,,\,s_{\alpha}^{\,\text{sol}}
                                                                                                                                                                                       \widetilde{\mu} \ \mathbf{c}_{\gamma} \ \overline{\mathbf{y_u}}^{\text{pil}} \ \overline{\mathbf{y_u}}^{\text{rs}} \ \mathbf{y_u}^{\text{ri2}} \ \left( - \ \mathbf{s_{\gamma}} \ a_u^{\text{ps}} + \widetilde{\mu} \ \mathbf{c_{\gamma}} \ \mathbf{y_u}^{\text{ps}} \right) \ \mathsf{LF_{2,1,1,1,-1}} \big[ \ \mathsf{m_{\tilde{u}}}^{\tilde{u}} \\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , m<sub>q</sub>p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ', m<sub>ã</sub>
                                                                                                                                                    \frac{1}{12} \; g_{1}^{\; 2} \; y_{u}^{\; p \dot{1} \, 2} \; \left( \, m_{1} \; s_{\gamma} + \widetilde{\mu} \; c_{\gamma} \right) \; \left( \, s_{\gamma} \; \overline{a_{u}}^{\; p \dot{1} \, 1} - \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; p \dot{1} \, 1} \right) \; \mathsf{LF}_{2,1,1,1,-1} \big[ \, m_{\tilde{u}}^{\; \dot{1} \, 1} \, , \; m_{1} \, , \; m_{\tilde{q}}^{\; \dot{p}} \, , \; \widetilde{\mu} \, \big] \; - \, \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1} \, 1} \, , \; c_{\gamma} \; \overline{y_{u}}^{\; \dot{p} \dot{1}} \, , \; c_{
                                                                                                                                                    \frac{1}{12} g_1^2 \overline{y_u}^{\text{pil}} (m_1 s_{\gamma} + \tilde{\mu} c_{\gamma}) \left( s_{\gamma} a_u^{\text{pi2}} - \tilde{\mu} c_{\gamma} y_u^{\text{pi2}} \right) LF_{2,1,1,1,-1} \left[ m_{\tilde{u}}^{\text{i2}}, m_1, m_{\tilde{q}}^{\text{p}}, \tilde{\mu} \right] + \frac{1}{12} \left[ m_{\tilde{u}}^{\text{pi2}}, m_1, m_{\tilde{q}}^{\text{pi2}}, \tilde{\mu} \right] + \frac{1}{12} \left[ m_{\tilde{u}}^{\text{pi2}}, m_1, m_1, m_2, \tilde{\mu} \right] + \frac{1}{12} \left[ m_{\tilde{u}}^{\text{pi2}}, \tilde{\mu} \right] + \frac{1}{12} \left[ m_1, m_1, m_2, \tilde{\mu} \right] + \frac{1}{12} \left[ m_1, \tilde{\mu} \right] + 
                                                                                                                                                    \frac{1}{12} \ g_1^{\ 2} \ y_u^{\ pii} \ (\ m_1 \ s_\gamma + \widetilde{\mu} \ c_\gamma) \ \left( s_\gamma \ \overline{a_u}^{\ pii} - \widetilde{\mu} \ c_\gamma \ \overline{y_u}^{\ pii} \right) \ LF_{2,1,1,1,-1} \big[ \widetilde{\mu} \ , \ m_1 \ , \ m_{\tilde{q}}^{\ p} \ , \ m_{\tilde{u}}^{\ ii} \big] + c_{\tilde{q}} \ 
                                                                                                                                                    \frac{1}{12} \ g_1^{\ 2} \ \overline{y_u^{\text{pil}}} \ \left( \ m_1 \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma} \right) \ \left( s_{\gamma} \ a_u^{\text{pil}} - \widetilde{\mu} \ c_{\gamma} \ y_u^{\text{pil}} \right) \ \mathsf{LF}_{2,1,1,1,-1} \big[ \widetilde{\mu}, \ m_1, \ m_{\tilde{q}}^{\ p}, \ m_{\tilde{u}}^{\ il} \big] \big)
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