```
C_{qu}^{(1)}{}^{\text{i1\_i2\_i3\_i4\_}} \rightarrow -\frac{1}{6} \ \frac{1}{m_{\text{o}^2}} \ c_{\gamma}{}^2 \ \overline{y_u}{}^{\text{i2i3}} \ y_u{}^{\text{i1i4}} + \hbar \ \left(\frac{1}{1296} \ \frac{1}{m_{\text{o}^2}} \right) \left(27 \ c_{\gamma}{}^2 \ \overline{y_d}{}^{\text{pr}} \ y_d{}^{\text{i1r}} \ \overline{y_u}{}^{\text{i2i3}} \ y_u{}^{\text{pi4}} \ \left(-1 + s_{\gamma}{}^2\right) - \frac{1}{3} \left(1 + s_{\gamma}{}^2\right) \left(1
                                                                                                                                                                                                                                                     {c_{\gamma}}^{2} \, \left( 27 \, \overline{y_{d}}^{\text{i2p}} \, \overline{y_{u}}^{\text{ri3}} \, \left( 12 \, {s_{\gamma}}^{2} \, {y_{d}}^{\text{i1p}} \, {y_{u}}^{\text{ri4}} - {y_{d}}^{\text{rp}} \, {y_{u}}^{\text{i1i4}} \, \left( -1 + {s_{\gamma}}^{2} \right) \right) \, + \, \left( -1 + {s_{\gamma}}^{2} \right) \, \left(
                                                                                                                                                                                                                                                                                                                                                                81\,\overline{y_u}^{\text{ri3}}\,\overline{y_u}^{\text{i2p}}\,\left(12\,{s_{_{\! Y}}}^2\,{y_u}^{\text{ri4}}\,{y_u}^{\text{i1p}}\,+\,{y_u}^{\text{rp}}\,{y_u}^{\text{i1i4}}\,\left(1+{c_{_{\! Y}}}^2\right)\right)\,+\,3\,\overline{y_u}^{\text{i2i3}}
                                                                                                                                                                                                                                                                                                                                                                                                     \left(y_{u}^{\text{ili4}} \, \left(17 \; g_{1}^{2} + 27 \; g_{2}^{2} + 96 \; g_{3}^{2}\right) \, + 27 \; \overline{y_{u}}^{\text{pr}} \, \left(y_{u}^{\text{pi4}} \; y_{u}^{\text{ilr}} \, \left(1 + c_{\gamma}^{\; 2}\right) \, - 8 \; s_{\gamma}^{\; 2} \; y_{u}^{\text{pr}} \; y_{u}^{\text{ili4}}\right)\right) \, + \, \left(1 + c_{\gamma}^{\; 2}\right) \, + \, \left(1 + c_{\gamma}^{\; 2}\right) \, + \, \left(1 + c_{\gamma}^{\; 2}\right) \, - \, \left(1 + c_{\gamma}^{\; 2}\right) \, + \, \left(1
                                                                                                                                                                                                                                                                                                                                                                14\;g_{1}{}^{2}\;\overline{y_{u}}^{\text{pi3}}\;y_{u}{}^{\text{pi4}}\;\delta_{\text{ili2}}\big)\;+4\;g_{1}{}^{2}\;\left(5\;s_{\chi}{}^{2}\;\overline{y_{d}}^{\text{i2p}}\;y_{d}{}^{\text{i1p}}\;-13\;c_{\chi}{}^{2}\;\overline{y_{u}}^{\text{i2p}}\;y_{u}{}^{\text{i1p}}\right)\;\delta_{\text{i3i4}}\big)\;-13\;c_{\chi}{}^{2}\;\overline{y_{u}}^{\text{i2p}}\;y_{u}{}^{\text{i1p}}\big)\;\delta_{\text{i3i4}}\big)\;+10\;c_{\chi}{}^{2}\;\overline{y_{u}}^{\text{i2p}}\;y_{u}{}^{\text{i2p}}\,y_{u}{}^{\text{i3p}}\big)\;\delta_{\text{i3i4}}\big)\;
                                                                                                                                                           \frac{1}{12} \, \sum_{p} \, c_{\gamma} \, g_{1}^{\, 2} \, \frac{1}{m_{_{0}}^{\, 4}} \, \overline{y_{u}}^{\, i2i3} \, y_{u}^{\, i1i4} \, \left( \, c_{2 \, \gamma} \, \, c_{\gamma} \, - \, 2 \, \, s_{2 \, \gamma} \, \, s_{\gamma} \right) \, \, LF_{1,0} \left[ \, m_{\widetilde{d}}^{\, \, p} \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} \, \, \right] \, + \, \left[ \, m_{\widetilde{d}}^{\, \, \, p} 
                                                                                                                                                           \frac{4}{243} \sum_{p} g_1^4 LF_{3,0} \left[ m_{\tilde{d}}^{\ p} \right] \delta_{i1i2} \delta_{i3i4} -
                                                                                                                                                               \frac{5}{162} \sum_{p} g_{1}^{4} LF_{4,-1} [m_{d}^{p}] \delta_{1112} \delta_{1314} +
                                                                                                                                                               \frac{16}{1215} \sum_{p} g_{1}^{4} LF_{5,-2} [m_{\tilde{d}}^{p}] \delta_{i1i2} \delta_{i3i4} -
                                                                                                                                                           \frac{1}{2} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{0}^{\; 4}} \; \overline{y_{d}}^{pr} \; y_{d}^{\; pr} \; \overline{y_{u}}^{i2i3} \; y_{u}^{\; i1i4} \; \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\; r} \right] \; - \left[ m_{\tilde{d}}^{\; r
                                                                                                                                                           \frac{1}{12} \, \sum_{p} \, c_{\gamma} \, g_{1}^{\, 2} \, \frac{1}{m_{0}^{\, 4}} \, \overline{y_{u}}^{i2i3} \, y_{u}^{\, i1i4} \, \left( \, c_{2 \, \gamma} \, c_{\gamma} \, - \, 2 \, s_{2 \, \gamma} \, s_{\gamma} \right) \, \, LF_{1,0} \left[ \, m_{\tilde{e}}^{\, p} \, \right] \, + \, \left( \, m_{\tilde{e}}^{\, p} \, m_{\tilde{e}}^
                                                                                                                                                           \frac{4}{81}\,\sum_{p}\,{g_{1}}^{4}\,\mathsf{LF_{3,0}}\!\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,-\,\frac{5}{54}\,\sum_{p}\,{g_{1}}^{4}\,\,\mathsf{LF_{4,-1}}\!\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{i3i4}}\,+\,\frac{1}{2}\,\,\left[\,\mathsf{m_{\tilde{e}}}^{\,p}\,\right]\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text{ili2}}\,\,\delta_{\,\text
                                                                                                                                                           \frac{16}{405} \sum_{p} g_{1}^{\ 4} \ \mathsf{LF}_{5,-2} \big[ \mathsf{m}_{\tilde{\mathsf{e}}}^{\ p} \big] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} -
                                                                                                                                                           \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{\varrho}^{\, 4}} \; \overline{y_{e}}^{pr} \; y_{e}^{\, pr} \; \overline{y_{u}}^{i2i3} \; y_{u}^{\, i1i4} \; \left( s_{2\, \gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{e}}^{\, r} \right] \; + \; c_{\gamma} \;
                                                                                                                                                           \frac{1}{12} \; c_{\gamma} \; \frac{1}{m_{e}^{4}} \; \overline{y_{u}}^{\text{i2i3}} \; y_{u}^{\text{i1i4}} \; \left(-2 \; s_{\gamma} \; \overline{y_{e}}^{\text{pr}} \; y_{e}^{\text{pr}} \; (s_{2 \, \gamma} + s_{\gamma} \; c_{\gamma}) \right. \\ \left. + \sum_{p} \; g_{1}^{2} \; (c_{2 \, \gamma} \; c_{\gamma} - 2 \; s_{2 \, \gamma} \; s_{\gamma}) \right) \; LF_{1,0} \left[ m_{\widetilde{l}}^{\; p} \right] + \left[ m_{\widetilde{l}}^{\; p} \right] \; + \left[ m
                                                                                                                                                           \frac{2}{81} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{3,0} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; - \; \frac{5}{108} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; + \; \frac{5}{108} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; + \; \frac{5}{108} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; + \; \frac{5}{108} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; + \; \frac{5}{108} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; + \; \frac{5}{108} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; + \; \frac{5}{108} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; + \; \frac{5}{108} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; + \; \frac{5}{108} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; + \; \frac{5}{108} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; + \; \frac{5}{108} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; + \; \frac{5}{108} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; + \; \frac{5}{108} \sum_{p} {g_{1}}^{4} \; \mathsf{LF}_{4,-1} \left[ \mathsf{m}_{\bar{1}}^{\; p} \right] \; \delta_{\mathsf{11i2}} \; \delta_{\mathsf{13i4}} \; + \; \frac{5}{108} \sum_{p} {g_{1}}^{2} \; \mathsf{LF}_{4,-1} \;
                                                                                                                                                           \frac{8}{405} \, \sum_{p} \, g_{1}{}^{4} \, \mathsf{LF}_{5,-2} \left[ \, m_{\tilde{l}}{}^{p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, - \, \frac{1}{12} \, \, c_{\gamma} \, \frac{1}{m_{s}{}^{4}} \, \, \overline{y_{u}}{}^{\dot{1}\dot{2}\dot{1}\dot{3}} \, y_{u}{}^{\dot{1}\dot{1}\dot{1}\dot{4}}
                                                                                                                                                                                            \left(6\; s_{\gamma}\; \overline{y_{d}}^{pr}\; y_{d}^{\;pr}\; \left(s_{2\;\gamma} + s_{\gamma}\; c_{\gamma}\right) \; + \; 6\; \overline{y_{u}}^{pr}\; y_{u}^{\;pr}\; \left(c_{\gamma}^{\;3} - s_{2\;\gamma}\; s_{\gamma}\right) \; + \\ \sum_{p}\; g_{1}^{\;2}\; \left(c_{2\;\gamma}\; c_{\gamma} - 2\; s_{2\;\gamma}\; s_{\gamma}\right) \; \right) \; + \; \left(c_{\gamma}^{\;3} - s_{2\;\gamma}\; s_{\gamma}\right) \; + \; \left(c_{\gamma}^{
                                                                                                                                                                                    \mathsf{LF_{1,0}}\!\left[\,m_{\tilde{q}}^{\,\,p}\,\right] \,+\, \frac{2}{243} \, \sum_{p} \, {g_{1}}^{4} \, \, \mathsf{LF_{3,0}}\!\left[\,m_{\tilde{q}}^{\,\,p}\,\right] \, \, \delta_{\text{ili2}} \, \, \delta_{\text{i3i4}} \, -\,
                                                                                                                                                               \frac{5}{324} \sum_{p} g_{1}{}^{4} \ \mathsf{LF_{4,-1}} \big[ \mathsf{m_{\tilde{q}}}^{p} \big] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} + \frac{8}{1215} \sum_{p} g_{1}{}^{4} \ \mathsf{LF_{5,-2}} \big[ \mathsf{m_{\tilde{q}}}^{p} \big] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} + \frac{1}{1215} \sum_{p} g_{1}{}^{4} \ \mathsf{LF_{5,-2}} \big[ \mathsf{m_{\tilde{q}}}^{p} \big] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} + \frac{1}{1215} \sum_{p} g_{1}{}^{4} \ \mathsf{LF_{5,-2}} \big[ \mathsf{m_{\tilde{q}}}^{p} \big] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} + \frac{1}{1215} \sum_{p} g_{1}{}^{4} \ \mathsf{LF_{5,-2}} \big[ \mathsf{m_{\tilde{q}}}^{p} \big] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} + \frac{1}{1215} \sum_{p} g_{1}{}^{4} \ \mathsf{LF_{5,-2}} \big[ \mathsf{m_{\tilde{q}}}^{p} \big] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} + \frac{1}{1215} \sum_{p} g_{1}{}^{4} \ \mathsf{LF_{5,-2}} \big[ \mathsf{m_{\tilde{q}}}^{p} \big] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} + \frac{1}{1215} \sum_{p} g_{1}{}^{4} \ \mathsf{LF_{5,-2}} \big[ \mathsf{m_{\tilde{q}}}^{p} \big] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} + \frac{1}{1215} \sum_{p} g_{1}{}^{4} \ \mathsf{LF_{5,-2}} \big[ \mathsf{m_{\tilde{q}}}^{p} \big] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} + \frac{1}{1215} \sum_{p} g_{1} \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}1\mathsf{i}2}
                                                                                                                                                           \frac{1}{6} \, \sum_{p} \, c_{\gamma} \, g_{1}^{\, 2} \, \frac{1}{m_{_{0}}^{\, 4}} \, \overline{y_{u}}^{i2i3} \, y_{u}^{\, i1i4} \, \left( \, c_{2 \, \gamma} \, c_{\gamma} \, - 2 \, s_{2 \, \gamma} \, s_{\gamma} \right) \, LF_{1,0} \left[ \, m_{\widetilde{u}}^{\, \, p} \, \right] \, + \, \left( \, m_{_{0}}^{\, \, p} \, s_{\gamma} \, m_{_{0}}^{\, \, p} \, m_{_{0}}^{\, \, p} \, s_{\gamma} \, m_{_{0}}^{\, \, p} \, m_{_{0}}^{
                                                                                                                                                           \frac{16}{243} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF}_{3,0} \left[ \, \mathsf{m}_{\bar{u}}^{\,\, p} \, \right] \, \, \delta_{\dot{1}\dot{1}\dot{2}} \, \, \delta_{\dot{1}\dot{3}\dot{4}} \, - \, \frac{10}{81} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF}_{4,-1} \left[ \, \mathsf{m}_{\bar{u}}^{\,\, p} \, \right] \, \, \delta_{\dot{1}\dot{1}\dot{2}} \, \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{10}{81} \, \, \sum_{p} \, g_{1}{}^{4} \, \, \, \mathsf{LF}_{4,-1} \left[ \, \mathsf{m}_{\bar{u}}^{\,\, p} \, \right] \, \, \delta_{\dot{1}\dot{1}\dot{2}} \, \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{10}{81} \, \, \sum_{p} \, g_{1}{}^{4} \, \, \, \mathsf{LF}_{4,-1} \left[ \, \mathsf{m}_{\bar{u}}^{\,\, p} \, \right] \, \, \delta_{\dot{1}\dot{1}\dot{2}} \, \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{10}{81} \, \, \delta_{\dot{1}\dot{3}\dot{4}\dot{4}} \, + \, \frac{10}{81} \, \, \delta_{\dot{1}\dot{4}\dot{4}} \, + \, \frac{10}{81} \, \, \delta_{\dot{1}\dot{3}\dot{4}\dot{4}} \, + \, \frac{10}{81} \, \, \delta_{\dot{1}\dot{4}\dot{4}\dot{4}} \, + \, \frac{10}{81} \, \, \delta_{\dot{1}\dot{4}\dot
                                                                                                                                                           \frac{64}{1215} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, m_{\tilde{u}}{}^{p} \, \big] \, \, \delta_{\text{ili}2} \, \, \delta_{\text{i3i4}} \, - \, \frac{1}{2} \, \, c_{\gamma} \, \frac{1}{m_{\tilde{u}}{}^{4}} \, \, \overline{y_{u}}^{pr} \, \, \overline{y_{u}}^{\text{i2i3}} \, \, y_{u}{}^{pr} \, \, y_{u}{}^{\text{ili4}} \, \, \left( c_{\gamma}{}^{3} \, - \, s_{2 \, \gamma} \, s_{\gamma} \right) \, \, \mathsf{LF}_{1,0} \big[ \, m_{\tilde{u}}{}^{r} \, \big] \, + \, c_{\gamma} \, \, s_{\gamma} \, \, c_{\gamma} \, \, s_{\gamma} \, \, c_{\gamma} 
                                                                                                                                                           \frac{1}{24} \; c_{\gamma} \; \frac{1}{m_{o}^{4}} \; \overline{y_{u}}^{\text{i2i3}} \; y_{u}^{\, \text{i1i4}} \; \left( c_{\gamma} \; \left( g_{1}^{\, 2} \; \left( 1 - 3 \; c_{2 \, \gamma}^{\, 2} \right) - 3 \; g_{2}^{\, 2} \; \left( - 1 + c_{2 \, \gamma}^{\, 2} \right) \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\, 2} + g_{2}^{\, 2} \right) \; \left( g_{1}^{\, 2} + g_{2}^{\, 2
                                                                                                                                                                                    y_{u}^{\text{ili4}} \, \left( 2 \, \overline{y_{u}}^{\text{i2i3}} \, \left( g_{1}^{\, 2} + 3 \, g_{2}^{\, 2} \right) \, + \, 3 \, \overline{y_{u}}^{\text{ri3}} \, \left( s_{\gamma}^{\, 2} \, \overline{y_{d}}^{\text{i2p}} \, y_{d}^{\, \text{rp}} - c_{\gamma}^{\, 2} \, \overline{y_{u}}^{\text{i2p}} \, y_{u}^{\, \text{rp}} \right) \, \right) \, LF_{1,1} \left[ \, m_{\scriptscriptstyle \oplus} \, \right] \, + \, 3 \, \overline{y_{u}}^{\, \text{ri3}} \, \left( s_{\gamma}^{\, 2} \, \overline{y_{d}}^{\, \text{i2p}} \, y_{d}^{\, \text{rp}} - c_{\gamma}^{\, 2} \, \overline{y_{u}}^{\, \text{i2p}} \, y_{u}^{\, \text{rp}} \right) \, \right) \, LF_{1,1} \left[ \, m_{\scriptscriptstyle \oplus} \, \right] \, + \, 3 \, \overline{y_{u}}^{\, \text{ri3}} \, \left( s_{\gamma}^{\, 2} \, \overline{y_{d}}^{\, \text{ri2p}} \, y_{d}^{\, \text{rp}} - c_{\gamma}^{\, 2} \, \overline{y_{u}}^{\, \text{ri2p}} \, y_{u}^{\, \text{rp}} \right) \, \right) \, LF_{1,1} \left[ \, m_{\scriptscriptstyle \oplus} \, \right] \, + \, 3 \, \overline{y_{u}}^{\, \text{ri2p}} \, \left( s_{\gamma}^{\, 2} \, \overline{y_{d}}^{\, \text{ri2p}} \, y_{d}^{\, \text{rp}} - c_{\gamma}^{\, 2} \, \overline{y_{u}}^{\, \text{ri2p}} \, y_{u}^{\, \text{rp}} \right) \, \right) \, LF_{1,1} \left[ \, m_{\scriptscriptstyle \oplus} \, \right] \, + \, 3 \, \overline{y_{u}}^{\, \text{ri2p}} \, \left( s_{\gamma}^{\, 2} \, \overline{y_{d}}^{\, \text{ri2p}} \, y_{d}^{\, \text{ri2p}} \, y_{u}^{\, \text{ri2p}} \, y_{u}^{\, \text{ri2p}} \right) \, \right) \, LF_{1,1} \left[ \, m_{\scriptscriptstyle \oplus} \, y_{u}^{\, \text{ri2p}} \, y_{u}^
                                                                                                                                                           \frac{1}{216} \left(18 \; {s_{\gamma}}^2 \; {c_{\gamma}}^2 \; \overline{y_d}^{\text{pr}} \; {y_d}^{\text{ilr}} \; \overline{y_u}^{\text{i2i3}} \; {y_u}^{\text{pi4}} + 2 \; {s_{\gamma}}^2 \; \overline{y_d}^{\text{i2p}} \; \left(9 \; {c_{\gamma}}^2 \; \overline{y_u}^{\text{ri3}} \; \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{i1i4}}\right) \right. + \\ \left. \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{i1i4}}\right) + \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{i1i4}}\right) \right) + \\ \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{i1i4}}\right) + \\ \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{i1i4}}\right) + \\ \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{i1i4}}\right) + \\ \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{i1i4}}\right) + \\ \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{i1i4}}\right) + \\ \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{i1i4}}\right) + \\ \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{i1i4}}\right) + \\ \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_d}^{\text{rp}}\right) + \\ \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_d}^{\text{rp}}\right) + \\ \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{rp}} \; {y_d}^{\text{rp}}\right) + \\ \left(-6 \; {y_d}^{\text{rp}} \; {y_d}^{\text{rp}
                                                                                                                                                                                                                                                                                                                                                            8\;{g_{1}}^{2}\;{y_{d}}^{\text{ilp}}\;{\delta_{\text{i3i4}}}\right)\;+\;{c_{\gamma}}^{2}\;\left(9\;\overline{y_{u}}^{\text{i2i3}}\;{y_{u}}^{\text{i1i4}}\;\left({g_{1}}^{2}\;+\;3\;{g_{2}}^{2}\right)\;-\;
                                                                                                                                                                                                                                                                                                                                                            4\;{g_{1}}^{2}\;\overline{y_{u}}^{\text{pi3}}\;{y_{u}}^{\text{pi4}}\;\delta_{\text{ili2}}-4\;\overline{y_{u}}^{\text{i2p}}\;{y_{u}}^{\text{i1p}}\;\left(27\;{s_{\gamma}}^{2}\;\overline{y_{u}}^{\text{ri3}}\;{y_{u}}^{\text{ri4}}+8\;{g_{1}}^{2}\;\delta_{\text{i3i4}}\right)\right)
                                                                                                                                                                                    \text{LF}_{1,2}\,[\,\text{M}_{\scriptscriptstyle{\oplus}}\,]\,\,+\,\,\frac{1}{36}\,\,\left(\,\text{S}_{\scriptscriptstyle{\Upsilon}}^{\,\,2}\,\,\overline{\text{y}_{d}}^{\,\,12p}\,\,\text{y}_{d}^{\,\,11p}\,\,\left(\,9\,\,\text{C}_{\scriptscriptstyle{\Upsilon}}^{\,\,2}\,\,\overline{\text{y}_{u}}^{\,\,ri\,3}\,\,\text{y}_{u}^{\,\,ri\,4}\,-\,2\,\,g_{1}^{\,\,2}\,\,\delta_{i\,3\,i\,4}\,\right)\,\,-\,\,3\,\,\text{m}^{\,\,2}\,\,\left(\,\text{S}_{\scriptscriptstyle{\Upsilon}}^{\,\,2}\,\,\overline{\text{y}_{d}}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i\,2p}\,\,\text{y}_{d}^{\,\,i
                                                                                                                                                                                                                                                         c_{\gamma}^{2}\,\left(g_{1}^{2}\,\overline{y_{u}}^{pi3}\,y_{u}^{pi4}\,\delta_{i1i2}\,+\,\overline{y_{u}}^{i2p}\,y_{u}^{i1p}\,\left(9\,c_{\gamma}^{2}\,\overline{y_{u}}^{ri3}\,y_{u}^{ri4}\,-\,2\,g_{1}^{2}\,\delta_{i3i4}\right)\right)\right)\,LF_{2,1}[\,m_{\Phi}]\,+\,2\,g_{1}^{2}\,\delta_{i3i4}
                                                                                                                                                           \frac{1}{324} \; g_1{}^2 \; \left(9 \; c_{\gamma}{}^2 \; \overline{y_u}^{\text{pi3}} \; y_u{}^{\text{pi4}} \; \delta_{\text{ili2}} + 2 \; \left(9 \; s_{\gamma}{}^2 \; \overline{y_d}^{\text{i2p}} \; y_d{}^{\text{i1p}} - 9 \; c_{\gamma}{}^2 \; \overline{y_u}^{\text{i2p}} \; y_u{}^{\text{i1p}} + 4 \; g_1{}^2 \; \delta_{\text{ili2}} \right) \; \delta_{\text{i3i4}} \right)
                                                                                                                                                                                    \mathsf{LF_{3,0}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,-\,\,\frac{5}{108}\,\,\mathsf{g_{1}}^{4}\,\,\mathsf{LF_{4,-1}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\,\delta_{\mathsf{ili2}}\,\,\delta_{\mathsf{i3i4}}\,\,+\,\,\frac{8}{405}\,\,\mathsf{g_{1}}^{4}\,\,\mathsf{LF_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\,\delta_{\mathsf{ili2}}\,\,\delta_{\mathsf{i3i4}}\,\,+\,\,\frac{1}{100}\,\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}
                                                                                                                                                               \frac{2}{81} \mathbf{g_1}^4 \mathsf{LF_{3,0}}[\tilde{\mu}] \delta_{\mathsf{ili2}} \delta_{\mathsf{i3i4}} + \frac{1}{27} \mathbf{g_1}^4 \mathsf{LF_{4,-1}}[\tilde{\mu}] \delta_{\mathsf{ili2}} \delta_{\mathsf{i3i4}} -
                                                                                                                                                           \frac{16}{405} \ g_1^{\ 4} \ \mathsf{LF}_{5,-2} \left[ \, \widetilde{\mu} \, \right] \ \delta_{\mathtt{1112}} \ \delta_{\mathtt{1314}} + \frac{1}{216} \ g_1^{\ 2} \ \frac{1}{\mathsf{m_s}^2} \ c_{\gamma}^{\ 2} \ \overline{\mathsf{y_u}}^{\mathtt{1213}} \ \mathsf{y_u}^{\mathtt{1114}} \ \mathsf{LF}_{\mathtt{1,1,0}} \left[ \, \mathsf{m_1}, \, \mathsf{m_{\tilde{q}}}^{\mathtt{11}} \, \right] - \frac{1}{2} \ \mathsf{m_{\tilde{q}}}^{\mathtt{11}} \ \mathsf{m_{\tilde{q}}}^{\mathtt{11}} + \frac{1}{2} \ \mathsf{m_{\tilde{q}}}^{\mathtt{11}} \ \mathsf{m_{\tilde{q}}}^{\mathtt{11}} + \frac{1}{2} \ \mathsf{m_{\tilde{q}}}^{\mathtt{11}} \ \mathsf{m_{\tilde{q}}}^{\mathtt{11}} + \frac{1}{2} \ \mathsf{
                                                                                                                                                           \frac{1}{432} \ g_1{}^2 \ \frac{1}{m_e{}^2} \ c_\gamma{}^2 \ \overline{y_u}{}^{i}{}^{2}{}^{i}{}^3 \ y_u{}^{i}{}^{1}{}^{i}{}^4 \ \mathsf{LF}_{2,1,-1} \big[ \, \mathsf{m}_1 \, , \ \mathsf{m}_{\tilde{q}}{}^{i}{}^{1} \, \big] \ +
                                                                                                                                                       \tfrac{1}{216} \; g_1{}^2 \; \tfrac{1}{m_0{}^2} \; c_\gamma{}^2 \; \overline{y_u}{}^{i2i3} \; y_u{}^{i1i4} \; \mathsf{LF}_{1,1,\theta} \big[ \, m_1 \, , \; m_{\tilde{q}}{}^{i2} \big] \; - \;
                                                                                                                                                           \frac{1}{432} \ g_1{}^2 \ \frac{1}{m_0{}^2} \ c_\gamma{}^2 \ \overline{y_u}{}^{i2i3} \ y_u{}^{i1i4} \ \mathsf{LF}_{2,1,-1} \big[ \mathsf{m}_1, \ \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2} \big] \ + \ \frac{1}{972} \ g_1{}^4 \ \mathsf{LF}_{2,1,9} \big[ \mathsf{m}_1, \ \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2} \big] \ \delta_{i1i2} \ \delta_{i3i4} \ + \ \delta_{i1i2} \ \delta_{i3i4} \ + \ \delta_{i1i2} \ \delta_{i3i4} \ + \ \delta_{i1i2} \ \delta_{i1i2} \ \delta_{i3i4} \ + \ \delta_{i1i2} \ \delta_{i1i2} \ \delta_{i1i3} \ \delta_{i1i3} \ \delta_{i1i4} \ \delta_{i1i4}
                                                                                                                                                           \frac{1}{972}~g_{1}^{~4}~\mathsf{LF}_{2,2,-1}\big[\,\mathsf{m}_{1}\,,\,\mathsf{m}_{\bar{q}}^{~\dot{1}\,2}\,\big]~\delta_{\dot{1}\dot{1}\dot{1}2}~\delta_{\dot{1}3\dot{1}4}\,-\,\frac{1}{486}~g_{1}^{~4}~\mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{1}\,,\,\mathsf{m}_{\bar{q}}^{~\dot{1}\,2}\,\big]~\delta_{\dot{1}\dot{1}\dot{1}2}~\delta_{\dot{1}3\dot{1}4}\,+\,\frac{1}{486}\,g_{1}^{~4}\,\mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{1}\,,\,\mathsf{m}_{\bar{q}}^{~\dot{1}\,2}\,\big]
                                                                                                                                                           \frac{1}{972}~g_{1}^{~4}~\mathsf{LF_{4,1,-2}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}}^{~\dot{1}2}\,\big]~\delta_{\dot{1}\dot{1}\dot{1}2}~\delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{2}{27}~g_{1}^{~2}~\frac{1}{\mathsf{m_{0}}^{2}}~c_{\gamma}^{~2}~\overline{y_{u}}^{\dot{1}2\dot{1}3}~y_{u}^{~\dot{1}\dot{1}\dot{1}\dot{4}}~\mathsf{LF_{1,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{u}}}^{\dot{1}\dot{3}}\,\big]~-
                                                                                                                                                           \frac{1}{27} \; {g_1}^2 \; \frac{1}{{m_o}^2} \; {c_{\gamma}}^2 \; \overline{y_u}^{i2i3} \; {y_u}^{i1i4} \; \mathsf{LF_{2,1,-1}} \big[ m_1 \, , \; m_{\tilde{u}}^{\;i3} \big] \; + \;
                                                                                                                                                           \frac{\textbf{4}}{\textbf{243}}~\textbf{g_1}^{\textbf{4}}~\textbf{LF}_{\textbf{2},\textbf{1},\textbf{0}}\left[\textbf{m}_{\textbf{1}},~\textbf{m}_{\tilde{\textbf{u}}}^{~\dot{\textbf{14}}}\right]~\delta_{\dot{\textbf{11}}\dot{\textbf{12}}}~\delta_{\dot{\textbf{13}}\dot{\textbf{14}}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_1}^{\textbf{4}}~\textbf{LF}_{\textbf{2},\textbf{2},-1}\left[\textbf{m}_{\textbf{1}},~\textbf{m}_{\tilde{\textbf{u}}}^{~\dot{\textbf{14}}}\right]~\delta_{\dot{\textbf{11}}\dot{\textbf{12}}}~\delta_{\dot{\textbf{13}}\dot{\textbf{14}}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_1}^{\textbf{4}}~\textbf{LF}_{\textbf{2},\textbf{2},-1}\left[\textbf{m}_{\textbf{1}},~\textbf{m}_{\tilde{\textbf{u}}}^{~\dot{\textbf{14}}}\right]~\delta_{\dot{\textbf{11}}\dot{\textbf{12}}}~\delta_{\dot{\textbf{13}}\dot{\textbf{14}}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_1}^{\textbf{4}}~\textbf{LF}_{\textbf{2},\textbf{2},-1}\left[\textbf{m}_{\textbf{1}},~\textbf{m}_{\tilde{\textbf{u}}}^{~\dot{\textbf{14}}}\right]~\delta_{\dot{\textbf{11}}\dot{\textbf{12}}}~\delta_{\dot{\textbf{13}}\dot{\textbf{14}}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_1}^{\textbf{4}}~\textbf{LF}_{\textbf{2},\textbf{2},-1}\left[\textbf{m}_{\textbf{1}},~\textbf{m}_{\tilde{\textbf{u}}}^{~\dot{\textbf{14}}}\right]~\delta_{\dot{\textbf{11}}\dot{\textbf{12}}}~\delta_{\dot{\textbf{13}}\dot{\textbf{14}}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_1}^{\textbf{4}}~\textbf{LF}_{\textbf{2},\textbf{2},-1}\left[\textbf{m}_{\textbf{1}},~\textbf{m}_{\tilde{\textbf{u}}}^{~\dot{\textbf{14}}}\right]~\delta_{\dot{\textbf{11}}\dot{\textbf{12}}}~\delta_{\dot{\textbf{13}}\dot{\textbf{14}}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_1}^{\textbf{4}}~\textbf{LF}_{\textbf{2},\textbf{2},-1}\left[\textbf{m}_{\textbf{1}},~\textbf{m}_{\tilde{\textbf{u}}}^{~\dot{\textbf{14}}}\right]~\delta_{\dot{\textbf{11}}\dot{\textbf{12}}}~\delta_{\dot{\textbf{13}}\dot{\textbf{13}}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_1}^{\textbf{4}}~\textbf{LF}_{\textbf{2},\textbf{2},-1}\left[\textbf{m}_{\textbf{1}},~\textbf{m}_{\tilde{\textbf{u}}}^{~\dot{\textbf{14}}}\right]~\delta_{\dot{\textbf{11}}\dot{\textbf{11}}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_1}^{\textbf{4}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_1}^{\textbf{4}}~\textbf{LF}_{\textbf{2},\textbf{2},-1}\left[\textbf{m}_{\textbf{1}},~\textbf{m}_{\tilde{\textbf{u}}}^{\dot{\textbf{14}}}\right]~\delta_{\dot{\textbf{11}}\dot{\textbf{12}}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_1}^{\textbf{4}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_1}^{\textbf{4}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_2}^{\textbf{4}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_2} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_2}^{\textbf{4}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_2} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_2}^{\textbf{4}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_2}^{\textbf{4}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_2}^{\textbf{4}} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_2} + \frac{\textbf{4}}{\textbf{243}}~\textbf{g_2}^{\textbf{4}} + 
                                                                                                                                                           \frac{8}{243}\ g_{1}^{\ 4}\ \mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{1}\,,\,\mathsf{m}_{\bar{\mathsf{u}}}^{\ \dot{\mathsf{1}}4}\big]\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{3}}\dot{\mathsf{1}}4} + \frac{4}{243}\ g_{1}^{\ 4}\ \mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{1}\,,\,\mathsf{m}_{\bar{\mathsf{u}}}^{\ \dot{\mathsf{1}}4}\big]\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\ \delta_{\dot{\mathsf{1}}}\
                                                                                                                                                       \frac{1}{6} \; g_{1}^{2} \; \frac{1}{m_{o}^{4}} \; c_{\gamma}^{2} \; \overline{y_{u}}^{\text{i2i3}} \; y_{u}^{\; \text{i1i4}} \; \left( c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; \mathsf{LF}_{1,1,-1} \left[ \, m_{1} \, , \; \widetilde{\mu} \, \right] \; + \\
                                                                                                                                                       \frac{1}{3} \; \mathsf{m_1} \; \mathsf{s_{\gamma}} \; \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^2 \; \frac{1}{\mathsf{m_0}^4} \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \; \mathsf{y_u}^{\mathsf{i1i4}} \; \left(-2 \; \mathsf{c_{\gamma}}^2 + \mathsf{s_{\gamma}}^2\right) \; \mathsf{LF_{1,1,0}} \left[\,\mathsf{m_1} \, , \; \widetilde{\mu} \, \right] \; + \; \mathsf{c_{\gamma}}^2 \; \mathsf{m_1}^2 \; \mathsf{m_2}^2 \; \mathsf{m_2}^2 \; \mathsf{m_3}^2 \; \mathsf{m_3}^
                                                                                                                                                           \frac{1}{8} \ g_2{}^2 \ \frac{1}{m_{_0}{}^2} \ c_{_{_{_{\!\!q}}}}{}^2 \ \overline{y_u}^{i2i3} \ y_u{}^{i1i4} \ \mathsf{LF}_{1,1,9} \big[ m_2 \,, \ m_{_{\!\tilde{q}}}{}^{i1} \big] - \frac{1}{16} \ g_2{}^2 \ \frac{1}{m_{_0}{}^2} \ c_{_{_{_{\!\!q}}}}{}^2 \ \overline{y_u}^{i2i3} \ y_u{}^{i1i4} \ \mathsf{LF}_{2,1,-1} \big[ m_2 \,, \ m_{_{\!\tilde{q}}}{}^{i1} \big] + \frac{1}{16} \ g_2{}^2 \ \frac{1}{m_{_0}{}^2} \ c_{_{_{_{\!\!q}}}} \ c_{_{_{\!\!q}}} \ \overline{y_u}^{i2i3} \ y_u{}^{i1i4} \ \mathsf{LF}_{2,1,-1} \big[ m_2 \,, \ m_{_{\!\tilde{q}}}{}^{i1} \big] + \frac{1}{16} \ g_2{}^2 \ \frac{1}{m_{_{\!\!q}}} \ c_{_{_{\!\!q}}} \ c_{_{_{\!\!q}}} \ \overline{y_u}^{i2i3} \ y_u{}^{i1i4} \ \mathsf{LF}_{2,1,-1} \big[ m_2 \,, \ m_{_{\!\!\tilde{q}}}{}^{i1} \big] + \frac{1}{16} \ g_2{}^2 \ \frac{1}{m_{_{\!\!q}}} \ c_{_{_{\!\!q}}} \ c_{_{_{\!\!q}}} \ \overline{y_u}^{i2i3} \ y_u{}^{i1i4} \ \mathsf{LF}_{2,1,-1} \big[ m_2 \,, \ m_{_{\!\!q}}{}^{i1} \big] + \frac{1}{16} \ g_2{}^2 \ \frac{1}{m_{_{\!\!q}}} \ c_{_{_{\!\!q}}} \ c_{_{_{\!\!q}}} \ \overline{y_u}^{i2i3} \ y_u{}^{i2i3} \ s_u{}^{i2i3} \
                                                                                                                                                               \frac{1}{8}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;c_{\gamma}^{2}\;\overline{y_{u}}^{\text{i2i3}}\;y_{u}^{\text{i1i4}}\;\mathsf{LF}_{\text{1,1,0}}\left[m_{2}\;,\;m_{\tilde{q}}^{\text{i2}}\right]\;-\;\frac{1}{16}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;c_{\gamma}^{2}\;\overline{y_{u}}^{\text{i2i3}}\;y_{u}^{\text{i1i4}}\;\mathsf{LF}_{\text{2,1,-1}}\left[m_{2}\;,\;m_{\tilde{q}}^{\text{i2}}\right]\;+\;\frac{1}{16}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;c_{\gamma}^{2}\;\overline{y_{u}}^{\text{i2i3}}\;y_{u}^{\text{i1i4}}\;\mathsf{LF}_{\text{2,1,-1}}\left[m_{2}\;,\;m_{\tilde{q}}^{\text{i2}}\right]\;+\;\frac{1}{16}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;c_{\gamma}^{2}\;\overline{y_{u}}^{\text{i2i3}}\;y_{u}^{\text{i1i4}}\;\mathsf{LF}_{\text{2,1,-1}}\left[m_{2}\;,\;m_{\tilde{q}}^{\text{i2}}\right]\;+\;\frac{1}{16}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;c_{\gamma}^{2}\;\overline{y_{u}}^{\text{i2i3}}\;y_{u}^{\text{i1i4}}\;\mathsf{LF}_{\text{2,1,-1}}\left[m_{2}\;,\;m_{\tilde{q}}^{\text{i2}}\right]\;+\;\frac{1}{16}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;c_{\gamma}^{2}\;\overline{y_{u}}^{\text{i2i3}}\;y_{u}^{\text{i1i4}}\;\mathsf{LF}_{\text{2,1,-1}}\left[m_{2}\;,\;m_{\tilde{q}}^{\text{i2}}\right]\;+\;\frac{1}{16}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;c_{\gamma}^{2}\;\overline{y_{u}}^{\text{i2i3}}\;y_{u}^{\text{i1i4}}\;\mathsf{LF}_{\text{2,1,-1}}\left[m_{2}\;,\;m_{\tilde{q}}^{\text{i2}}\right]\;+\;\frac{1}{16}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;c_{\gamma}^{2}\;\overline{y_{u}}^{\text{i2i3}}\;y_{u}^{\text{i1i4}}\;\mathsf{LF}_{\text{2,1,-1}}\left[m_{2}\;,\;m_{\tilde{q}}^{\text{i2i}}\right]\;+\;\frac{1}{16}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_{2}^{2}\;\frac{1}{m_{\text{o}}^{2}}\;g_
                                                                                                                                                           \frac{1}{36}\;g_{1}{}^{2}\;g_{2}{}^{2}\;\mathsf{LF}_{2,1,\emptyset}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\mathsf{i}\,2}\big]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,+\,\frac{1}{36}\;g_{1}{}^{2}\;g_{2}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\mathsf{i}\,2}\big]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{1}{36}\;g_{1}{}^{2}\;g_{2}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\mathsf{i}\,2}\big]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{1}{36}\;g_{1}{}^{2}\;g_{2}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\mathsf{i}\,2}\big]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{1}{36}\;g_{1}{}^{2}\;g_{2}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\mathsf{i}\,2}\big]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{1}{36}\;g_{1}{}^{2}\;g_{2}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\mathsf{i}\,2}\big]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{1}{36}\;g_{1}{}^{2}\;g_{2}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\mathsf{i}\,2}\big]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{1}{36}\;g_{1}{}^{2}\;g_{2}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\mathsf{i}\,2}\big]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{1}{36}\;g_{1}{}^{2}\;g_{2}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\mathsf{i}\,2}\big]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{1}{36}\;g_{1}{}^{2}\,g_{2}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\mathsf{i}\,2}\big]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{1}{36}\;g_{1}{}^{2}\,g_{2}{}^{2}\,\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\mathsf{i}\,2}\big]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{1}{36}\;g_{1}{}^{2}\,g_{2}{}^{2}\,\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\mathsf{i}\,2}\big]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,\mathsf{i}\,2}\,+\,\frac{1}{36}\;g_{1}{}^{\mathsf{i}\,2}\,\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}\,2}\big]\,\delta_{\mathsf{i}\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,2}\,\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{2}\,,\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\big]\,\delta_{\mathsf{i}\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_{2}\,\mathsf{m}_
                                                                                                                                                                            \frac{1}{18}\;{g_{1}}^{2}\;{g_{2}}^{2}\;\mathsf{LF_{3,1,-1}}\!\left[\mathsf{m_{2}}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i}\,2}\right]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}}\,+\,\frac{1}{36}\;{g_{1}}^{2}\;{g_{2}}^{2}\;\mathsf{LF_{4,1,-2}}\!\left[\mathsf{m_{2}}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i}\,2}\right]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}}\,+\,\frac{1}{36}\;{g_{1}}^{2}\;{g_{2}}^{2}\;\mathsf{LF_{4,1,-2}}\!\left[\mathsf{m_{2}}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i}\,2}\right]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}}\,+\,\frac{1}{36}\;{g_{1}}^{2}\;{g_{2}}^{2}\;\mathsf{LF_{4,1,-2}}\!\left[\mathsf{m_{2}}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i}\,2}\right]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}}\,+\,\frac{1}{36}\;{g_{1}}^{2}\;{g_{2}}^{2}\;\mathsf{LF_{4,1,-2}}\!\left[\mathsf{m_{2}}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i}\,2}\right]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}}\,+\,\frac{1}{36}\;{g_{1}}^{2}\;{g_{2}}^{2}\;\mathsf{LF_{4,1,-2}}\!\left[\mathsf{m_{2}}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i}\,2}\right]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}}\,+\,\frac{1}{36}\;{g_{1}}^{2}\;{g_{2}}^{2}\;\mathsf{LF_{4,1,-2}}\!\left[\mathsf{m_{2}}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i}\,2}\right]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{3}\,\mathsf{4}}\,+\,\frac{1}{36}\;{g_{1}}^{2}\;\mathsf{g_{2}}^{2}\;\mathsf{LF_{4,1,-2}}\!\left[\mathsf{m_{2}}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i}\,2}\right]\;\delta_{\mathsf{1}\,\mathsf{3}\,\mathsf{3}\,\mathsf{4}}\,+\,\frac{1}{36}\;{g_{1}}^{2}\;\mathsf{g_{2}}^{2}\;\mathsf{LF_{4,1,-2}}\!\left[\mathsf{m_{2}}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i}\,2}\right]\;\delta_{\mathsf{1}\,\mathsf{3}\,\mathsf{3}\,\mathsf{4}}\,+\,\frac{1}{36}\;\mathsf{m_{2}}^{2}\;\mathsf{g_{2}}^{2}\;\mathsf{LF_{4,1,-2}}\!\left[\mathsf{m_{2}}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i}\,2}\right]\;\delta_{\mathsf{1}\,\mathsf{3}\,\mathsf{3}\,\mathsf{4}}\,+\,\frac{1}{36}\;\mathsf{m_{2}}^{2}\;\mathsf{g_{2}}^{2}\;\mathsf{LF_{4,1,-2}}\!\left[\mathsf{m_{2}}\,,\,\mathsf{m_{2}}^{\mathsf{i}\,2}\right]\;\delta_{\mathsf{1}\,\mathsf{3}\,\mathsf{3}\,\mathsf{4}}\,+\,\frac{1}{36}\;\mathsf{m_{2}}^{2}\;\mathsf{g_{2}}^{2}\;\mathsf{LF_{4,1,-2}}\!\left[\mathsf{m_{2}}\,,\,\mathsf{m_{2}}^{\mathsf{i}\,2}\right]\;\delta_{\mathsf{1}\,\mathsf{3}\,\mathsf{3}\,\mathsf{4}}\,+\,\frac{1}{36}\;\mathsf{m_{2}}^{2}\;\mathsf{m_{2}}^{2}\;\mathsf{m_{2}}^{2}\;\mathsf{m_{2}}^{2}\;\mathsf{m_{2}}^{2}\;\mathsf{m_{2}}^{2}\;\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{2}}^{2}\,\mathsf{m_{
                                                                                                                                                           \frac{1}{2}~g_{2}^{2}~\frac{1}{m_{o}^{4}}~c_{\gamma}^{2}~\overline{y_{u}}^{i2i3}~y_{u}^{~i1i4}~\left(c_{\gamma}^{~2}+s_{\gamma}^{~2}\right)~\mathsf{LF}_{1,1,-1}\left[\,m_{2}\,,~\widetilde{\mu}\,\right]~+
                                                                                                                                               \text{m}_{2} \; \text{s}_{\gamma} \; \widetilde{\mu} \; \text{c}_{\gamma} \; \text{g}_{2}^{2} \; \frac{1}{\text{m}_{\text{m}}^{4}} \; \overline{\text{y}_{\text{u}}}^{\text{i2i3}} \; \text{y}_{\text{u}}^{\text{i1i4}} \; \left(-2 \; \text{c}_{\gamma}^{\; 2} + \text{s}_{\gamma}^{\; 2}\right) \; \text{LF}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} \, , \; \widetilde{\mu}\,\right] \; + \; \text{c}_{1,1,0} \left[\,\text{m}_{2} 
                                                                                                                                                               \frac{2}{9} \; g_3^2 \; \frac{1}{m_0^2} \; c_\gamma^2 \; \overline{y_u^{\text{i2i3}}} \; y_u^{\text{i1i4}} \; \mathsf{LF}_{1,1,0} \big[ \, \mathsf{m}_3 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \text{i1}} \, \big] \; - \frac{1}{9} \; g_3^2 \; \frac{1}{m_0^2} \; c_\gamma^2 \; \overline{y_u^{\text{i2i3}}} \; y_u^{\text{i1i4}} \; \mathsf{LF}_{2,1,-1} \big[ \, \mathsf{m}_3 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \text{i1}} \, \big] \; + \frac{1}{9} \; g_3^2 \; \frac{1}{m_0^2} \; c_\gamma^2 \; \overline{y_u^{\text{i2i3}}} \; y_u^{\text{i1i4}} \; \mathsf{LF}_{2,1,-1} \big[ \, \mathsf{m}_3 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \text{i1}} \, \big] \; + \frac{1}{9} \; g_3^2 \; \frac{1}{m_0^2} \; c_\gamma^2 \; \overline{y_u^{\text{i2i3}}} \; y_u^{\text{i1i4}} \; \mathsf{LF}_{2,1,-1} \big[ \, \mathsf{m}_3 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \text{i1}} \, \big] \; + \frac{1}{9} \; g_3^2 \; \frac{1}{m_0^2} \; c_\gamma^2 \; \overline{y_u^{\text{i2i3}}} \; y_u^{\text{i1i4}} \; \mathsf{LF}_{2,1,-1} \big[ \, \mathsf{m}_3 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \text{i1}} \, \big] \; + \frac{1}{9} \; g_3^2 \; \frac{1}{m_0^2} \; c_\gamma^2 \; \overline{y_u^{\text{i2i3}}} \; y_u^{\text{i1i4}} \; \mathsf{LF}_{2,1,-1} \big[ \, \mathsf{m}_3 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \text{i1}} \, \big] \; + \frac{1}{9} \; g_3^2 \; \frac{1}{m_0^2} \; c_\gamma^2 \; \overline{y_u^{\text{i2i3}}} \; y_u^{\text{i1i4}} \; \mathsf{LF}_{2,1,-1} \big[ \, \mathsf{m}_3 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \text{i1}} \, \big] \; + \frac{1}{9} \; g_3^2 \; \frac{1}{m_0^2} \; c_\gamma^2 \; \overline{y_u^{\text{i2i3}}} \; y_u^{\text{i1i4}} \; \mathsf{LF}_{2,1,-1} \big[ \, \mathsf{m}_3 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \, \text{i1i}} \, \big] \; + \frac{1}{9} \; g_3^2 \; \frac{1}{m_0^2} \; c_\gamma^2 \; \overline{y_u^{\text{i1i4}}} \; \mathsf{LF}_{2,1,-1} \big[ \, \mathsf{m}_3 \, , \; \mathsf{m}_{\tilde{\mathsf{q}}}^{\, \, \, \, \text{i1i}} \, \big] \; + \frac{1}{9} \; g_3^2 \; \frac{1}{m_0^2} \; \frac{1}{m_0^2}
                                                                                                                                                           \frac{2}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{1,1,0}[m_3, m_{\tilde{q}}^{i2}] - \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i2i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^{i2}] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Y}}^2 \overline{y_u}^{i2i3} y_u^{i2i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^2] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Z}}^2 \overline{y_u}^{i2i3} y_u^{i2i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^2] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Z}}^2 \overline{y_u}^{i2i3} y_u^{i2i4} LF_{2,1,-1}[m_3, m_{\tilde{q}}^2] + \frac{1}{9} g_3^2 \frac{1}{m_{_{D}}^2} c_{_{Z}}^2 \overline{y_u}^{i2i4} + \frac{1}
                                                                                                                                                           \frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF}_{2,1,0}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,i\,2}\right]\;\delta_{\mathsf{i}\mathsf{1}\mathsf{i}\mathsf{2}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{i}\mathsf{4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,i\,2}\right]\;\delta_{\mathsf{i}\mathsf{1}\mathsf{i}\mathsf{2}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{i}\mathsf{4}}\,-\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,i\,2}\right]\;\delta_{\mathsf{i}\mathsf{1}\mathsf{i}\mathsf{2}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{i}\mathsf{4}}\,-\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,i\,2}\right]\;\delta_{\mathsf{i}\mathsf{1}\mathsf{i}\mathsf{2}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}\mathsf{4}}\,-\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,i\,2}\right]\;\delta_{\mathsf{i}\mathsf{1}\mathsf{i}\mathsf{2}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}\mathsf{4}}\,-\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,i\,2}\right]\;\delta_{\mathsf{i}\mathsf{1}\mathsf{3}\mathsf{2}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}\mathsf{4}}\,-\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,i\,2}\right]\;\delta_{\mathsf{i}\mathsf{1}\mathsf{3}\mathsf{2}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}\mathsf{4}}\,-\,\frac{4}{81}\;g_{1}^{2}\;g_{2}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,i\,2}\right]\;\delta_{\mathsf{i}\mathsf{1}\mathsf{3}\mathsf{2}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}\mathsf{4}}\,-\,\frac{4}{81}\;g_{1}^{2}\;g_{2}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,i\,2}\right]\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}\mathsf{3}\mathsf{4}}\,-\,\frac{4}{81}\;g_{1}^{2}\;g_{2}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,i\,2}\right]\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}\;\delta_{\mathsf{i}\mathsf{3}}
                                                                                                                                                       \frac{8}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{3,1,-1}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\;\,\delta_{i\,1\,i\,2}\;\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\;\,\delta_{i\,1\,i\,2}\;\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\;\,\delta_{i\,1\,i\,2}\;\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\;\,\delta_{i\,1\,i\,2}\;\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\,\,\delta_{i\,1\,i\,2}\;\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\,\,\delta_{i\,1\,i\,2}\;\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\,\,\delta_{i\,1\,i\,2}\;\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\,\,\delta_{i\,1\,i\,2}\;\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\,\,\delta_{i\,1\,i\,2}\;\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\,\,\delta_{i\,1\,i\,2}\;\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\,\,\delta_{i\,1\,i\,2}\;\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\,\,\delta_{i\,1\,i\,2}\,\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\,\,\delta_{i\,1\,i\,2}\,\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\,\,\delta_{i\,1\,i\,2}\,\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\,\,\delta_{i\,1\,i\,2}\,\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{-i\,2}\,\big]\,\,\delta_{i\,1\,i\,2}\,\delta_{i\,3\,i\,4}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;LF_{4,1,-2}\big[\,m_{3}\,,\,m_{\tilde{q}}^{2}\,\,m_{\tilde{q}}^{2}\,\,m_{\tilde{q}}^{2}\,\,m_{\tilde{q}}^{2}\,\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}^{2}\,m_{\tilde{q}}
                                                                                                                                                       \frac{2}{9} \ g_{3}{}^{2} \ \frac{1}{m_{_{0}}{}^{2}} \ c_{_{\gamma}}{}^{2} \ \overline{y_{u}}{}^{i2i3} \ y_{u}{}^{i1i4} \ LF_{1,1,0} \left[ \, m_{_{3}} \, , \, m_{_{\tilde{u}}}{}^{i3} \, \right] - \frac{1}{9} \ g_{3}{}^{2} \ \frac{1}{m_{_{0}}{}^{2}} \ c_{_{\gamma}}{}^{2} \ \overline{y_{u}}{}^{i2i3} \ y_{u}{}^{i1i4} \ LF_{2,1,-1} \left[ \, m_{_{3}} \, , \, m_{_{\tilde{u}}}{}^{i3} \, \right] + \frac{1}{9} \ g_{3}{}^{2} \ m_{_{0}}{}^{2} \ m_{
                                                                                                                                                       \frac{2}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{1,1,0}[m_3, m_{\tilde{u}}^{i4}] - \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^{i4}] + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u}^{i4} + \frac{1}{9} g_3^2 \frac{1}{m_0^2} c_\gamma^2 \overline{y_u
                                                                                                                                                           \frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,1,0}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,2,-1}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{4}{81}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^
                                                                                                                                                       \frac{8}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{3,1,-1}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i1i2}}\,+\,\frac{4}{81}\;g_{1}^{2}\;g_{1}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i1i2}}\,+\,\frac{4}{81}\;g_{1}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\,\delta_{\mathsf{i1i2}}\,+\,\frac{4}{81}\;g_{1}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\,\delta_{\mathsf{i1i2}}\,+\,\frac{4}{81}\;g_{1}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\,\delta_{\mathsf{i1i2}}\,+\,\frac{4}{81}\;g_{1}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}\big]\;\delta_{\mathsf{i1i2}}\,+\,\frac{4}{81}\;g_{1}^{2}\;\mathsf{LF_{4,1,-2}}\big[\mathsf
                                                                                                                                                       \frac{1}{12}\ \frac{1}{m_0^2}\ c_\gamma^2\ \overline{y_d}^{i2p}\ y_d^{rp}\ \overline{y_u}^{ri3}\ y_u^{i1i4}\ \mathsf{LF_{1,1,0}}\left[\,m_{\bar{d}}^{\phantom{d}p}\,,\ \widetilde{\mu}\,\right] \ +\ \frac{2}{27}\ g_1^2\ \overline{y_d}^{i2p}\ y_d^{\phantom{d}i1p}\ \mathsf{LF_{2,1,0}}\left[\,m_{\bar{d}}^{\phantom{d}p}\,,\ \widetilde{\mu}\,\right]\ \delta_{i3i4} \ -\ \delta_{i
                                                                                                                                                           \frac{1}{27} \ g_1{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{2,2,-1} \big[ \ \mathsf{m}_{\check{d}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{i3i4} - \frac{1}{27} \ g_1{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\check{d}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{i3i4} + \frac{1}{27} \ \mathsf{m}_{\check{d}}{}^p \ , \ \widetilde{\mu}_{i1} + \frac{1}{27} \ \mathsf{m}_{i1}{}^p \ , \ \widetilde{\mu}_{i1} + \frac{1}{27} \ \mathsf{m}_{i2}{}^p \ , \ \widetilde{\mu}_{i1} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i2} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i2} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i2} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i2} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i2} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i2} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i2} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i2} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i2} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i2} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i2} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i1} + \frac{1}{27} \ \mathsf{m}_{i2} + \frac{1}{27} \ \mathsf{m}_{i
                                                                                                                                                                                        \left(c_{\gamma}\,\frac{1}{m_{_{0}}{}^{4}}\,\overline{y_{u}}^{\text{i2i3}}\,y_{u}^{\,\,\text{i1i4}}\,\left(\widetilde{\mu}\,\overline{y_{d}}^{\text{pr}}\,\left(a_{d}^{\,\,\text{pr}}\,\left(-2\,s_{\gamma}\,c_{\gamma}^{\,\,2}+s_{\gamma}^{\,\,3}\right)\,-\widetilde{\mu}\,\,c_{\gamma}\,y_{d}^{\,\,\text{pr}}\,\left(c_{\gamma}^{\,\,2}-2\,s_{\gamma}^{\,\,2}\right)\right)\right.\right.\right)
                                                                                                                                                                                                                                                         {s_{\gamma}}^{^{^{\prime}}}\overline{a_{d}}^{pr}\left(-3\;{s_{\gamma}}\;{c_{\gamma}}\;{a_{d}}^{pr}+\widetilde{\mu}\;{y_{d}}^{pr}\;\left(-2\;{c_{\gamma}}^{2}+{s_{\gamma}}^{2}\right)\right)\right)\;LF_{1,1,0}\big[\,{m_{\tilde{d}}}^{r},\;{m_{\tilde{q}}}^{p}\big]\;+
                                                                                                                                                           \frac{1}{12} \ \frac{1}{m_{\text{e}}^2} \ c_{\text{y}}^2 \ \overline{y_d}^{\text{pr}} \ y_d^{\text{ilr}} \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{pi4}} \ LF_{1,1,0} \left[ m_{\bar{d}}^{\text{-r}}, \ \widetilde{\mu} \right] + \frac{1}{6} \ c_{\text{y}} \ \frac{1}{m_{\text{e}}^4} \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{i1i4}}
                                                                                                                                                                                                \left(\widetilde{\mu} \ \overline{y_e}^{pr} \left(a_e^{pr} \left(-2 \ s_{\gamma} \ c_{\gamma}^2 + s_{\gamma}^3\right) - \widetilde{\mu} \ c_{\gamma} \ y_e^{pr} \left(c_{\gamma}^2 - 2 \ s_{\gamma}^2\right)\right) + 
                                                                                                                                                                                                                                                         s_{\gamma} \; \overline{a_{e}}^{pr} \; \left( -3 \; s_{\gamma} \; c_{\gamma} \; a_{e}^{\; pr} \; + \widetilde{\mu} \; y_{e}^{\; pr} \; \left( -2 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \right) \; \mathsf{LF}_{1,1,0} \left[ \, \mathsf{m}_{\tilde{e}}^{\; r} \; , \; \mathsf{m}_{\tilde{l}}^{\; p} \, \right] \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{\tilde{e}}^{\; 2}} \; \overline{y_{u}}^{\mathsf{i} \, 2 \, \mathsf{i} \, 3} \; y_{u}^{\; \mathsf{i} \, 1 \, \mathsf{i} \, 4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{\tilde{e}}^{\; 2}} \; \overline{y_{u}}^{\; \mathsf{i} \, 2 \, \mathsf{i} \, 3} \; y_{u}^{\; \mathsf{i} \, 1 \, \mathsf{i} \, 4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{\tilde{e}}^{\; 2}} \; \overline{y_{u}}^{\; \mathsf{i} \, 2 \, \mathsf{i} \, 3} \; y_{u}^{\; \mathsf{i} \, 1 \, \mathsf{i} \, 4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{\tilde{e}}^{\; 2}} \; \overline{y_{u}}^{\; \mathsf{i} \, 2 \, \mathsf{i} \, 3} \; y_{u}^{\; \mathsf{i} \, 1 \, \mathsf{i} \, 4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{\tilde{e}}^{\; 2}} \; \overline{y_{u}}^{\; \mathsf{i} \, 2 \, \mathsf{i} \, 3} \; y_{u}^{\; \mathsf{i} \, 1 \, \mathsf{i} \, 4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{\tilde{e}}^{\; 2}} \; \overline{y_{u}}^{\; \mathsf{i} \, 2 \, \mathsf{i} \, 3} \; y_{u}^{\; \mathsf{i} \, 1 \, \mathsf{i} \, 4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{\tilde{e}}^{\; 2}} \; \overline{y_{u}}^{\; \mathsf{i} \, 2 \, \mathsf{i} \, 3} \; y_{u}^{\; \mathsf{i} \, 1 \, \mathsf{i} \, 4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{\tilde{e}}^{\; 2}} \; \overline{y_{u}}^{\; \mathsf{i} \, 2 \, \mathsf{i} \, 3} \; y_{u}^{\; \mathsf{i} \, 1 \, \mathsf{i} \, 4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{\tilde{e}}^{\; 2}} \; \overline{y_{u}}^{\; \mathsf{i} \, 2 \, \mathsf{i} \, 3} \; y_{u}^{\; \mathsf{i} \, 1 \, \mathsf{i} \, 4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{\tilde{e}}^{\; 2}} \; \overline{y_{u}}^{\; \mathsf{i} \, 2 \, \mathsf{i} \, 3} \; y_{u}^{\; \mathsf{i} \, 1 \, \mathsf{i} \, 4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; c_{\gamma} \; \frac{1}{m_{\tilde{e}}^{\; 2}} \; \overline{y_{u}}^{\; \mathsf{i} \, 3} \; y_{u}^{\; \mathsf{i} \,
                                                                                                                                                                                            \left(\widetilde{\mu}\,\overline{y_e}^{pr}\,\left(a_e^{\,pr}\,\left(c_{_{Y}}^{\,2}-s_{_{Y}}^{\,2}\right)-2\,s_{_{Y}}\,\widetilde{\mu}\,\,c_{_{Y}}\,y_e^{\,pr}\right)+\overline{a_e}^{pr}\,\left(2\,s_{_{Y}}\,c_{_{Y}}\,a_e^{\,pr}+\widetilde{\mu}\,y_e^{\,pr}\,\left(c_{_{Y}}^{\,2}-s_{_{Y}}^{\,2}\right)\right)\right)
                                                                                                                                                                                     \mathsf{LF_{2,1,0}} \left[ \, \mathsf{m_{\tilde{l}}}^{\, p} \, , \, \, \mathsf{m_{\tilde{e}}}^{\, r} \, \right] \, + \, \frac{1}{6} \, \, \mathsf{s_{\gamma}} \, \, \mathsf{c_{\gamma}} \, \, \frac{1}{\mathsf{m_{0}}^{\, 2}} \, \, \overline{\mathsf{y_{u}}}^{\, i2i3} \, \, \mathsf{y_{u}}^{\, i1i4} \, \, \left( \widetilde{\mu} \, \, \overline{\mathsf{y_{e}}}^{\, pr} \, \, \left( a_{e}^{\, pr} \, \left( - \, c_{\gamma}^{\, \, 2} + \, s_{\gamma}^{\, \, 2} \right) \, + \, 2 \, \, s_{\gamma} \, \, \widetilde{\mu} \, \, c_{\gamma} \, \, \mathsf{y_{e}}^{\, pr} \right) \, + \, 2 \, \, s_{\gamma} \, \, \widetilde{\mu} \, \, c_{\gamma} \, \, \mathsf{y_{e}}^{\, pr} \, \left( a_{e}^{\, pr} \, \left( - \, c_{\gamma}^{\, \, 2} + \, s_{\gamma}^{\, \, 2} \right) \, + \, 2 \, \, s_{\gamma} \, \, \widetilde{\mu} \, \, c_{\gamma} \, \, \mathsf{y_{e}}^{\, pr} \right) \, + \, 2 \, \, s_{\gamma} \, \, \widetilde{\mu} \, \, c_{\gamma} \, \, \mathsf{y_{e}}^{\, pr} \, \left( a_{e}^{\, pr} \, \left( - \, c_{\gamma}^{\, \, 2} + \, s_{\gamma}^{\, \, 2} \right) \, + \, 2 \, \, s_{\gamma} \, \, \widetilde{\mu} \, \, c_{\gamma} \, \, \mathsf{y_{e}}^{\, pr} \right) \, + \, 2 \, \, s_{\gamma} \, \, \widetilde{\mu} \, \, \mathsf{v_{v}}^{\, pr} \, \, \mathsf{y_{e}}^{\, pr} \, \left( a_{e}^{\, pr} \, \left( - \, c_{\gamma}^{\, \, 2} + \, s_{\gamma}^{\, \, 2} \right) \, + \, 2 \, \, s_{\gamma} \, \, \widetilde{\mu} \, \, c_{\gamma} \, \, \mathsf{y_{e}}^{\, pr} \right) \, + \, 3 \, \, \mathsf{y_{e}}^{\, pr} \, \, \mathsf{y_{
                                                                                                                                                                                                                                                     \frac{1}{\epsilon} \; s_{\gamma}^{2} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; \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_{3,1,0} \left[ \, m_{\widetilde{l}}^{\;\; p} \, , \; m_{\widetilde{e}}^{\;\; r} \, \right] \; + \, c_{\gamma} \; \widetilde{h} \; \widetilde{h}
                                                                                                                                                           \frac{1}{2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}^{\mathsf{i2i3}}} \; y_{u}^{\; \mathsf{i1i4}} \; \left( - \, c_{\gamma} \; \overline{a_{e}}^{\mathsf{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; \overline{y_{e}}^{\mathsf{pr}} \right) \; \left( - \, c_{\gamma} \; a_{e}^{\; \mathsf{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \mathsf{pr}} \right) \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{l}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{r}} \, \right] \; - \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{pr}} \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{l}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{r}} \, \right] \; - \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{l}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{r}} \, \right] \; - \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{l}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{r}} \, \right] \; - \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{l}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{r}} \, \right] \; - \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{l}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{r}} \, \right] \; - \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{l}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{p}} \, \right] \; - \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{l}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{p}} \, \right] \; - \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{l}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{p}} \, \right] \; - \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{l}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{p}} \, \right] \; - \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{l}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{p}} \, \right] \; - \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{l}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{e}}}^{\; \mathsf{p}} \, , \; \mathsf{m_
                                                                                                                                                           \frac{1}{3} \; s_{\gamma}^{\; 2} \; \overline{y_{u}^{\text{i2i3}}} \; y_{u}^{\text{i1i4}} \; \left( - \, c_{\gamma} \; \overline{a_{e}}^{\text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; \overline{y_{e}}^{\text{pr}} \right) \; \left( - \, c_{\gamma} \; a_{e}^{\text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\text{pr}} \right) \; \mathsf{LF_{5,1,-2}} \left[ \, \mathsf{m_{\tilde{l}}}^{\, p} \, , \; \mathsf{m_{\tilde{e}}}^{\, r} \, \right] \; + \; \mathsf{m_{\tilde{l}}}^{\, p} \; \mathsf{m_{\tilde{l
                                                                                                                                                               \frac{1}{2} s_{\gamma} c_{\gamma} \frac{1}{m_{\sigma}^2} \overline{y_u}^{i2i3} y_u^{i1i4}
                                                                                                                                                                                            \left(\widetilde{\mu}\,\overline{y_d}^{pr}\,\left(a_d^{\,pr}\,\left(c_{_{Y}}^{\,\,2}-s_{_{Y}}^{\,\,2}\right)\,-\,2\,\,s_{_{Y}}\,\widetilde{\mu}\,\,c_{_{Y}}\,y_d^{\,pr}\right)\,+\,\overline{a_d}^{pr}\,\left(2\,\,s_{_{Y}}\,c_{_{Y}}\,a_d^{\,pr}\,+\,\widetilde{\mu}\,\,y_d^{\,pr}\,\left(c_{_{Y}}^{\,\,2}-s_{_{Y}}^{\,\,2}\right)\right)\right)
                                                                                                                                                                                     \mathsf{LF_{2,1,0}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, p} \, , \, \, \mathsf{m_{\tilde{d}}}^{\, r} \, \right] \, + \, \frac{1}{2} \, \, \mathsf{s_{\gamma}} \, \, \mathsf{c_{\gamma}} \, \, \frac{1}{\mathsf{m_{\tilde{u}}}^{\, 2}} \, \, \overline{\mathsf{y_u}}^{\, i2i3} \, \, \mathsf{y_u}^{\, i1i4} \, \, \left( \widetilde{\mu} \, \, \overline{\mathsf{y_d}}^{pr} \, \left( \, \mathsf{a_d}^{pr} \, \left( - \, \mathsf{c_{\gamma}}^{\, 2} \, + \, \mathsf{s_{\gamma}}^{\, 2} \right) \, + \, 2 \, \, \mathsf{s_{\gamma}} \, \widetilde{\mu} \, \, \mathsf{c_{\gamma}} \, \, \mathsf{y_d}^{pr} \right) \, + \, 2 \, \, \mathsf{s_{\gamma}} \, \widetilde{\mu} \, \, \mathsf{c_{\gamma}} \, \, \mathsf{y_d}^{pr} \, \right) \, + \, \mathsf{v_{\gamma}} \, \, \mathsf{v_{\gamma}
                                                                                                                                                                                                                                                         \frac{1}{2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}}^{\text{i2i3}} \; y_{u}^{\; \text{i1i4}} \; \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[ \, \boldsymbol{m_{\tilde{q}}}^{\, \text{p}} \,, \; \boldsymbol{m_{\tilde{d}}}^{\, \text{r}} \, \right] \; + \; \boldsymbol{m_{\tilde{q}}}^{\, \text{pr}} \; \boldsymbol{m_{\tilde{q}}}^{\, \text{pr}} + \, \boldsymbol{m_{\tilde{q}}}^{\, \text{pr}} \, \boldsymbol{m_
                                                                                                                                                                                        \left[s_{\gamma}^{2}\,\overline{y_{u}}^{\text{i2i3}}\,y_{u}^{\,\,\text{i1i4}}\,\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)\,LF_{4,1,-1}\!\left[\boldsymbol{m}_{\tilde{q}}^{\,\,p}\,,\,\boldsymbol{m}_{\tilde{d}}^{\,\,r}\right]-\right]
                                                                                                                                                       s_{\gamma}^{2} \, \overline{y_{u}}^{i2i3} \, y_{u}^{i1i4} \, \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) \, \operatorname{LF}_{5,1,-2} \left[ \, m_{\tilde{q}}^{\,\, p} \,, \, m_{\tilde{d}}^{\,\, r} \, \right] \, + \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \operatorname{LF}_{5,1,-2} \left[ \, m_{\tilde{q}}^{\,\, p} \,, \, m_{\tilde{d}}^{\,\, r} \, \right] \, + \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \operatorname{LF}_{5,1,-2} \left[ \, m_{\tilde{q}}^{\,\, p} \,, \, m_{\tilde{d}}^{\,\, r} \, \right] \, + \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_{d}^{\,\, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, p
                                                                                                                                                           \frac{1}{6}\;\frac{1}{m_{_{\bar{q}}}^{2}}\;c_{_{\Upsilon}}{}^{2}\;\overline{y_{u}}^{pr}\;\overline{y_{u}}^{i2i3}\;y_{u}^{pi4}\;y_{u}^{\;i1r}\;\mathsf{LF}_{1,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\\ -\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{pi3}\;y_{u}^{pi4}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{pi3}\;y_{u}^{pi4}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{pi3}\;y_{u}^{pi4}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{pi3}\;y_{u}^{pi4}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{pi3}\;y_{u}^{pi4}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{pi4}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{pi4}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{pi4}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{pi4}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{p}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{p}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{p}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{p}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{p}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{p}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{p}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{p}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{p}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{p}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{p}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{p}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;\overline{y_{u}}^{p}\;\mathsf{LF}_{2,1,\theta}\left[m_{_{\bar{q}}}{}^{p},\;\widetilde{\mu}\right]\;\delta_{i1i2}+\frac{1}{54}\;g_{1}^{2}\;
                                                                                                                                                           \frac{1}{108} \ g_1{}^2 \ \overline{y_u}{}^{\text{pi3}} \ y_u{}^{\text{pi4}} \ \mathsf{LF}_{2,2,-1} \big[ \ \mathsf{m}_{\bar{q}}{}^{\text{p}} , \ \widetilde{\mu} \, \big] \ \delta_{\text{ili2}} + \frac{1}{108} \ g_1{}^2 \ \overline{y_u}{}^{\text{pi3}} \ y_u{}^{\text{pi4}} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{q}}{}^{\text{p}} , \ \widetilde{\mu} \, \big] \ \delta_{\text{ili2}} + \frac{1}{108} \ g_1{}^2 \ \overline{y_u}{}^{\text{pi3}} \ y_u{}^{\text{pi4}} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{q}}{}^{\text{p}} , \ \widetilde{\mu} \, \big] \ \delta_{\text{ili2}} + \frac{1}{108} \ g_1{}^2 \ \overline{y_u}{}^{\text{pi3}} \ y_u{}^{\text{pi4}} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{q}}{}^{\text{p}} , \ \widetilde{\mu} \, \big] \ \delta_{\text{ili2}} + \frac{1}{108} \ g_1{}^2 \ \overline{y_u}{}^{\text{pi3}} \ y_u{}^{\text{pi4}} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{q}}{}^{\text{p}} , \ \widetilde{\mu} \, \big] \ \delta_{\text{ili2}} + \frac{1}{108} \ g_1{}^2 \ \overline{y_u}{}^{\text{pi3}} \ y_u{}^{\text{pi4}} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{q}}{}^{\text{p}} , \ \widetilde{\mu} \, \big] \ \delta_{\text{ili2}} + \frac{1}{108} \ g_1{}^2 \ \overline{y_u}{}^{\text{pi3}} \ y_u{}^{\text{pi4}} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{q}}{}^{\text{p}} , \ \widetilde{\mu} \, \big] \ \delta_{\text{ili2}} + \frac{1}{108} \ g_1{}^2 \ y_u{}^{\text{pi4}} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{q}}{}^{\text{p}} , \ \widetilde{\mu} \, \big] \ \delta_{\text{ili2}} + \frac{1}{108} \ g_1{}^2 \ y_u{}^{\text{pi4}} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{q}}{}^{\text{p}} , \ \widetilde{\mu} \, \big] \ \delta_{\text{ili2}} + \frac{1}{108} \ g_1{}^2 \ y_u{}^{\text{pi4}} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{q}}{}^{\text{p}} , \ \widetilde{\mu} \, \big] \ \delta_{\text{ili2}} + \frac{1}{108} \ g_1{}^2 \ y_u{}^{\text{pi4}} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{q}}{}^{\text{p}} , \ \widetilde{\mu} \, \big] \ \delta_{\text{ili2}} + \frac{1}{108} \ g_1{}^2 \ y_u{}^{\text{pi4}} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{q}}{}^{\text{p}} , \ \widetilde{\mu} \, \big] \ \delta_{\text{ili2}} + \frac{1}{108} \ \mathsf{m}_{\text{ili2}} + \frac{1}
                                                                                                                                                           \frac{1}{6} \ \frac{1}{m_{\bar{u}}^2} \ c_{\gamma}^2 \ \overline{y_u}^{\text{ri3}} \ \overline{y_u}^{\text{i2p}} \ y_u^{\text{rp}} \ y_u^{\text{i1i4}} \ \mathsf{LF}_{1,1,0} \left[ \mathsf{m}_{\bar{q}}^{\text{r}} \text{, } \widetilde{\mu} \right] - \frac{1}{486} \ \mathsf{g_1}^4 \ \mathsf{LF}_{2,1,0} \left[ \mathsf{m}_{\bar{q}}^{\text{i2}} \text{, } \mathsf{m_1} \right] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} + \frac{1}{486} \ \mathsf{m_2}^{\text{res}} \right] - \frac{1}{486} \ \mathsf{g_1}^4 \ \mathsf{LF}_{2,1,0} \left[ \mathsf{m}_{\bar{q}}^{\text{i2}} \text{, } \mathsf{m_1} \right] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} + \frac{1}{486} \ \mathsf{m_2}^{\text{res}} \right] - \frac{1}{486} \ \mathsf{g_1}^4 \ \mathsf{LF}_{2,1,0} \left[ \mathsf{m}_{\bar{q}}^{\text{i2}} \text{, } \mathsf{m_1} \right] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} + \frac{1}{486} \ \mathsf{m_2}^{\text{res}} \right] - \frac{1}{486} \ \mathsf{g_1}^4 \ \mathsf{LF}_{2,1,0} \left[ \mathsf{m}_{\bar{q}}^{\text{i2}} \text{, } \mathsf{m_1} \right] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} + \frac{1}{486} \ \mathsf{m_2}^{\text{res}} \right] - \frac{1}{486} \ \mathsf{m_2}^{\text{res}} + \frac{1}{486} \
                                                                                                                                                               \frac{1}{972} \; g_1^{\; 4} \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\bar{\mathsf{q}}}^{\; \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}2} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{3}}\dot{\mathsf{1}}4} - \frac{1}{18} \; g_1^{\; 2} \; g_2^{\; 2} \; \mathsf{LF}_{2,1,0} \big[ \, \mathsf{m}_{\bar{\mathsf{q}}}^{\; \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}2} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{3}}\dot{\mathsf{1}}4} + \frac{1}{18} \; g_1^{\; 2} \; g_2^{\; 2} \; \mathsf{LF}_{2,1,0} \big[ \, \mathsf{m}_{\bar{\mathsf{q}}}^{\; \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}2} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{3}}\dot{\mathsf{1}}4} + \frac{1}{18} \; g_1^{\; 2} \; g_2^{\; 2} \; \mathsf{LF}_{2,1,0} \big[ \, \mathsf{m}_{\bar{\mathsf{q}}}^{\; \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}2} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{3}}\dot{\mathsf{1}}4} + \frac{1}{18} \; g_1^{\; 2} \; g_2^{\; 2} \; \mathsf{LF}_{2,1,0} \big[ \, \mathsf{m}_{\bar{\mathsf{q}}}^{\; \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}2} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{3}}\dot{\mathsf{1}}4} + \frac{1}{18} \; g_1^{\; 2} \; g_2^{\; 2} \; \mathsf{LF}_{2,1,0} \big[ \, \mathsf{m}_{\bar{\mathsf{q}}}^{\; \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}2} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{3}}\dot{\mathsf{1}}4} + \frac{1}{18} \; g_1^{\; 2} \; g_2^{\; 2} \; \mathsf{LF}_{2,1,0} \, \big[ \, \mathsf{m}_{\bar{\mathsf{q}}}^{\; \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}2} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{3}}\dot{\mathsf{1}}4} + \frac{1}{18} \; g_1^{\; 2} \; g_2^{\; 2} \; \mathsf{LF}_{2,1,0} \, \big[ \, \mathsf{m}_{\bar{\mathsf{q}}}^{\; \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}2} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{3}}\dot{\mathsf{1}}4} + \frac{1}{18} \; g_1^{\; 2} \; g_2^{\; 2} \; \mathsf{LF}_{2,1,0} \, \big[ \, \mathsf{m}_{\bar{\mathsf{q}}}^{\; \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}2} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}4} \,, \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}2} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}4} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}4} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}4} \,, \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}4} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}4} \; \delta_{\dot{\mathsf{1}}4} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}4} \; \delta_{\dot{\mathsf{1}}4} \; \delta_{\dot{\mathsf{1}}4} \; \delta_{\dot{\mathsf
                                                                                                                                                           \frac{1}{36}\ g_1{}^2\ g_2{}^2\ \mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{1}2},\ \mathsf{m}_2\big]\ \delta_{\dot{1}\dot{1}\dot{1}2}\ \delta_{\dot{1}3\dot{1}4} - \frac{8}{81}\ g_1{}^2\ g_3{}^2\ \mathsf{LF}_{2,1,0}\big[\mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{1}2},\ \mathsf{m}_3\big]\ \delta_{\dot{1}\dot{1}\dot{1}2}\ \delta_{\dot{1}3\dot{1}4} + \frac{1}{8}(g_1{}^2) + \frac{1}{8
                                                                                                                                                           \frac{4}{81} \; g_{1}{}^{2} \; g_{3}{}^{2} \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\tilde{q}}{}^{\dot{1}2} \, , \; \mathsf{m}_{3} \, \big] \; \delta_{\dot{1}\dot{1}\dot{2}} \; \delta_{\dot{1}\dot{3}\dot{1}4} \; + \; \frac{1}{12} \; \frac{1}{\mathsf{m}_{0}{}^{2}} \; c_{\gamma}{}^{2} \; \overline{\mathsf{y}_{u}}{}^{r\dot{1}3} \; \overline{\mathsf{y}_{u}}{}^{\dot{1}2p} \; \mathsf{y}_{u}{}^{r\dot{1}1\dot{4}} \; \mathsf{LF}_{1,1,0} \left[ \, \mathsf{m}_{\tilde{u}}{}^{p} \, , \; \tilde{\mu} \, \right] \; - \; \mathcal{L}_{1,1,0} \left[ \, \mathsf{m}_{\tilde{u}}{}^{p} \, , \; \tilde{\mu}_{1,1,1} \, \right] \; \mathcal{L}_{1,1,0} \left[ \, \mathsf{m}_{\tilde{u}}{}^{p} \, , \; \tilde{\mu}_{1,1,1,1} \, \right] \; \mathcal{L}_{1,1,0} \left[ \, \mathsf{m}_{\tilde{u}}{}^{p} \, , \; \tilde{\mu}_{1,1,1,1} \, \right] \; \mathcal{L}_{1,1,0} \left[ \, \mathsf{m}_{\tilde{u}}{}^{p} \, , \; \tilde{\mu}_{1,1,1,1} \, \right] \; \mathcal{L}_{1,1,0} \left[ \, \mathsf{m}_{\tilde{u}}{}^{p} \, , \; \tilde{\mu}_{1,1,1,1} \, \right] \; \mathcal{L}_{1,1,0} \left[ \, \mathsf{m}_{\tilde{u}}{}^{p} \, , \; \tilde{\mu}_{1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, \right] \; \mathcal{L}_{1,1,1,0} \left[ \, \mathsf{m}_{\tilde{u}}{}^{p} \, , \; \tilde{\mu}_{1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1,1} \, , \; \tilde{\mu}_{1,1,1,1} \, , \; \tilde{\mu}_{1,1,1} \,
                                                                                                                                                           \frac{4}{27} \; g_{1}{}^{2} \; \overline{y_{u}}^{i2p} \; y_{u}{}^{i1p} \; \mathsf{LF}_{2,1,0} \big[ \mathsf{m}_{\bar{u}}{}^{p}, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_{1}{}^{2} \; \overline{y_{u}}^{i2p} \; y_{u}{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\bar{u}}{}^{p}, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_{1}{}^{2} \; \overline{y_{u}}^{i2p} \; y_{u}{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\bar{u}}{}^{p}, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_{1}{}^{2} \; \overline{y_{u}}^{i2p} \; y_{u}{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\bar{u}}{}^{p}, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_{1}{}^{2} \; \overline{y_{u}}^{i2p} \; y_{u}{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\bar{u}}{}^{p}, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_{1}{}^{2} \; \overline{y_{u}}^{i2p} \; y_{u}{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\bar{u}}{}^{p}, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_{1}{}^{2} \; \overline{y_{u}}^{i2p} \; y_{u}{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\bar{u}}{}^{p}, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_{1}{}^{2} \; \overline{y_{u}}^{i2p} \; y_{u}{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\bar{u}}{}^{p}, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_{1}{}^{2} \; \overline{y_{u}}^{i2p} \; y_{u}{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\bar{u}}{}^{p}, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_{1}{}^{2} \; \overline{y_{u}}^{i2p} \; y_{u}{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\bar{u}}{}^{p}, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_{1}{}^{p} \; y_{u}{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\bar{u}}{}^{p}, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_{1}{}^{p} \; y_{u}{}^{p} \; y_{u}{}^{p}
                                                                                                                                                               \frac{2}{27} \; {g_{1}}^{2} \; \overline{y_{u}}^{i2p} \; {y_{u}}^{i1p} \; \mathsf{LF_{3,1,-1}} \big[ \, m_{u}^{\; p} \, , \; \widetilde{\mu} \, \big] \; \delta_{i3i4} + \frac{1}{2} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i2i3} \; {y_{u}}^{i1i4}
                                                                                                                                                                                            \left(\widetilde{\mu}\;\overline{y_u}^{pr}\;\left(a_u^{\;pr}\;\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\right.\\ \left.+2\;s_{\gamma}\;\widetilde{\mu}\;c_{\gamma}\;y_u^{\;pr}\right)\right.\\ \left.+\;\overline{a_u}^{pr}\;\left(-2\;s_{\gamma}\;c_{\gamma}\;a_u^{\;pr}+\widetilde{\mu}\;y_u^{\;pr}\;\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\right)\right)
                                                                                                                                                                                    \frac{1}{2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}}^{\text{i2i3}} \; y_{u}^{\; \text{i1i4}} \; \left( s_{\gamma} \; \overline{a_{u}}^{\text{pr}} - \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; a_{u}^{\; \text{pr}} - \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{pr}} \right) \; \text{LF}_{3,1,0} \left[ m_{\tilde{u}}^{\; \text{r}} \, , \; m_{\tilde{q}}^{\; \text{p}} \right] \; + \; \left( s_{\gamma} \; \overline{a_{u}}^{\text{pr}} + \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{a_{u}}^{\text{pr}} + \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\text{pr}} \right) \; + \; \left( s_{\gamma} \; \overline{a_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{a_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{a_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; + \; \left( s_{\gamma} \; \overline{a_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; + \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; \left( s_{\gamma} \; \overline{y_{u}}^{\text{pr}} + \widetilde{\mu} \; \overline{y
                                                                                                                                                           \frac{3}{2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}^{\; i2i3}} \; y_{u}^{\; i1i4} \; \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}} \left[\mathfrak{m}_{\bar{u}}^{\; r} \, , \; \mathfrak{m}_{\bar{q}}^{\; p}\right] \; - \; \widetilde{\mu} \; c_{\gamma} \; \widetilde{y_{u}}^{pr} \; .
                                                                                                                                                   s_{\gamma}^{2}\,\overline{y_{u}}^{\text{i2i3}}\,y_{u}^{\,\,\text{i1i4}}\,\left(s_{\gamma}\,\overline{a_{u}}^{\text{pr}}-\widetilde{\mu}\,\,c_{\gamma}\,\overline{y_{u}}^{\text{pr}}\right)\,\left(s_{\gamma}\,a_{u}^{\,\,\text{pr}}-\widetilde{\mu}\,\,c_{\gamma}\,y_{u}^{\,\,\text{pr}}\right)\,\text{LF}_{5,1,-2}\!\left[m_{\widetilde{u}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{p}}\right]\,+\,\left(m_{\widetilde{u}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{p}}\right)\,\left(m_{\widetilde{u}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{p}}\right)\,\left(m_{\widetilde{u}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{p}}\right)\,\left(m_{\widetilde{u}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{p}}\right)\,\left(m_{\widetilde{u}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{p}}\right)\,\left(m_{\widetilde{u}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{p}}\right)\,\left(m_{\widetilde{u}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{p}}\right)\,\left(m_{\widetilde{u}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{p}}\right)\,\left(m_{\widetilde{u}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{p}}\right)\,\left(m_{\widetilde{u}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{p}}\right)\,\left(m_{\widetilde{u}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{p}}\right)\,\left(m_{\widetilde{u}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{\widetilde{q}}^{\,\,\text{r}}\,,\,m_{
                                                                                                                                                           \frac{1}{12}~\frac{1}{m_{\text{e}}^{2}}~c_{\text{Y}}^{2}~\overline{y_{\text{u}}}^{\text{pr}}~\overline{y_{\text{u}}}^{\text{i2i3}}~y_{\text{u}}^{\text{pi4}}~y_{\text{u}}^{\text{i1r}}~\mathsf{LF}_{1,1,0}\left[m_{\tilde{u}}^{\text{r}},~\widetilde{\mu}\right]~-
                                                                                                                                                           \frac{8}{243}~g_{1}{}^{4}~\mathsf{LF}_{2,1,0}\big[\mathsf{m}_{\bar{\mathsf{u}}}{}^{\mathsf{i}4},~\mathsf{m}_{1}\big]~\delta_{\mathsf{i}1\mathsf{i}2}~\delta_{\mathsf{i}3\mathsf{i}4} + \frac{4}{243}~g_{1}{}^{4}~\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\bar{\mathsf{u}}}{}^{\mathsf{i}4},~\mathsf{m}_{1}\big]~\delta_{\mathsf{i}1\mathsf{i}2}~\delta_{\mathsf{i}3\mathsf{i}4} - \frac{1}{2}(\mathsf{m}_{\mathsf{u}})^{\mathsf{i}4}
                                                                                                                                                               \frac{8}{81}\; {g_{1}}^{2}\; {g_{3}}^{2}\; \mathsf{LF}_{2,1,0}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{1}}^{2}\; {g_{3}}^{2}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{1}}^{2}\; {g_{3}}^{2}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{1}}^{2}\; {g_{3}}^{2}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{1}}^{2}\; {g_{3}}^{2}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{1}}^{2}\; {g_{3}}^{2}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{1}}^{2}\; {g_{3}}^{2}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{1}}^{2}\; {g_{3}}^{2}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{1}}^{2}\; {g_{3}}^{2}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{1}}^{2}\; {g_{3}}^{2}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{1}}^{2}\; {g_{3}}^{2}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{1}}^{2}\; {g_{3}}^{2}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{1}}^{2}\; {g_{2}}^{2}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{1}}^{2}\; {g_{2}}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, i\, 2}\; \delta_{\, i\, 3\, i\, 4}\; +\; \frac{4}{81}\; {g_{2}}\; \mathsf{LF}_{3,1,-1}\left[\, \mathsf{m_{\tilde{u}}}^{\, \, i\, 4}\,,\; \mathsf{m_{3}}\,\right] \; \delta_{\, i\, 1\, 1\, 1}\; \delta_
                                                                                                                                                                    \frac{1}{3} m<sub>1</sub> s<sub>\gamma</sub> \widetilde{\mu} c<sub>\gamma</sub> g<sub>1</sub><sup>2</sup> \frac{1}{m_o^2} \overline{y_u}^{i2i3} y<sub>u</sub><sup>i1i4</sup> \left(c_{\gamma}^2 - s_{\gamma}^2\right) LF<sub>2,1,0</sub>[\widetilde{\mu}, m<sub>1</sub>] +
                                                                                                                                                           \frac{1}{3} \; s_{\gamma} \; g_{1}^{2} \; \frac{1}{m_{\text{g}}^{2}} \; \overline{y_{u}}^{\text{i2i3}} \; y_{u}^{\; \text{i1i4}} \; \left( s_{\gamma} \; m_{\bar{\text{g}}}^{2} \; \left( c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{1} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \; \text{LF}_{3,1,-1} \left[ \, \widetilde{\mu} \, , \; m_{1} \, \right] \; + \; m_{1} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{2} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{2} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma} \; c_{\gamma} \; + \; m_{3} \; \widetilde{\mu} \; c_{\gamma
                                                                                                                                                           \frac{1}{3} m<sub>1</sub> \widetilde{\mu} c<sub>\gamma</sub> g<sub>1</sub><sup>2</sup> s<sub>\gamma</sub><sup>3</sup> \overline{y_u}<sup>i2i3</sup> y<sub>u</sub><sup>i1i4</sup> LF<sub>3,1,0</sub> [\widetilde{\mu}, m<sub>1</sub>] -
                                                                                                                                                               \frac{2}{3} \, g_1^2 \, s_\gamma^2 \, \overline{y_u}^{i2i3} \, y_u^{i1i4} \, \left( c_\gamma^2 + s_\gamma^2 \right) \, \mathsf{LF}_{4,1,-2} \left[ \widetilde{\mu} \, , \, \mathsf{m}_1 \right] \, - \, c_\gamma^2 \, s_\gamma^2 \, s_
                                                                                                                                               \mathsf{m_1}\,\tilde{\mu}\,\,\mathsf{c_{\gamma}}\,\,\mathsf{g_{1}}^2\,\,\mathsf{s_{\gamma}}^3\,\,\overline{\mathsf{y_{u}}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i1i4}}\,\,\mathsf{LF_{4,1,-1}}\,[\,\tilde{\mu}\,,\,\,\mathsf{m_{1}}\,]\,\,+\,\frac{1}{3}\,\,\mathsf{g_{1}}^2\,\,\mathsf{s_{\gamma}}^2\,\,\overline{\mathsf{y_{u}}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i1i4}}\,\,\left(\,\mathsf{c_{\gamma}}^{\,2}\,+\,\mathsf{s_{\gamma}}^{\,2}\right)\,\,\mathsf{LF_{5,1,-3}}\,[\,\tilde{\mu}\,,\,\,\mathsf{m_{1}}\,]\,\,+\,\frac{1}{3}\,\,\mathsf{g_{1}}^2\,\,\mathsf{s_{\gamma}}^2\,\,\overline{\mathsf{y_{u}}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i1i4}}\,\,\left(\,\mathsf{c_{\gamma}}^{\,2}\,+\,\mathsf{s_{\gamma}}^{\,2}\right)\,\,\mathsf{LF_{5,1,-3}}\,[\,\tilde{\mu}\,,\,\,\mathsf{m_{1}}\,]\,\,+\,\frac{1}{3}\,\,\mathsf{g_{1}}^2\,\,\mathsf{s_{\gamma}}^2\,\,\overline{\mathsf{y_{u}}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i1i4}}\,\,\mathsf{LF_{4,1,-3}}\,[\,\tilde{\mu}\,,\,\,\mathsf{m_{1}}\,]\,\,+\,\frac{1}{3}\,\,\mathsf{g_{1}}^2\,\,\mathsf{s_{\gamma}}^2\,\,\overline{\mathsf{y_{u}}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i1i4}}\,\,\mathsf{LF_{4,1,-3}}\,[\,\tilde{\mu}\,,\,\,\mathsf{m_{1}}\,]\,\,+\,\frac{1}{3}\,\,\mathsf{g_{1}}^2\,\,\mathsf{s_{\gamma}}^2\,\,\overline{\mathsf{y_{u}}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}}^{\mathsf{i2i3}}\,\,\mathsf{y_{u}
                                                                                                                                                           \frac{2}{3} m_1 \tilde{\mu} c_{\gamma} g_1^2 s_{\gamma}^3 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{5,1,-2} [\tilde{\mu}, m_1] +
                                                                                                                                               \text{m}_2 \text{ s}_{\gamma} \, \widetilde{\mu} \text{ c}_{\gamma} \text{ g}_2^2 \, \tfrac{1}{\text{m}_\text{g}^2} \, \overline{\text{y}_\text{u}}^\text{i2i3} \, \text{y}_\text{u}^\text{i1i4} \, \left(\text{c}_{\gamma}^{\, 2} - \text{s}_{\gamma}^{\, 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\, \widetilde{\mu} \, \text{, m}_2 \, \right] \, + \, \left(\text{c}_{\gamma}^{\, 2} - \text{s}_{\gamma}^{\, 2}\right) \, \left(\text{c}_{\gamma}^{\, 2} - \text{s}_{
                                                                                                                                                   s_{\gamma} \; g_{2}^{2} \; \frac{1}{m_{\text{\tiny D}}^{2}} \; \overline{y_{\text{\tiny U}}}^{\text{\tiny 1213}} \; y_{\text{\tiny U}}^{\text{\tiny 1114}} \; \left( s_{\gamma} \; m_{\text{\tiny D}}^{\; 2} \; \left( c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) + m_{2} \; \widetilde{\mu} \; c_{\gamma} \; \left( - \, c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \; \text{LF}_{3,1,-1} \left[ \, \widetilde{\mu} \, , \; m_{2} \, \right] \; + \, \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2} +
                                                                                                                                               \mathsf{m_2}\; \tilde{\mu}\; \mathsf{c_{\gamma}}\; \mathsf{g_2}^2\; \mathsf{s_{\gamma}}^3\; \overline{y_u}^{\mathsf{i}\,\mathsf{i}\,\mathsf{i}\,\mathsf{i}\,\mathsf{3}}\; \mathsf{y_u}^{\mathsf{i}\,\mathsf{i}\,\mathsf{i}\,\mathsf{i}\,\mathsf{4}}\; \mathsf{LF_{3,1,0}}\left[\,\tilde{\mu}\;,\; \mathsf{m_2}\,\right] \; - \; 2\; \mathsf{g_2}^2\; \mathsf{s_{\gamma}}^2\; \overline{y_u}^{\mathsf{i}\,\mathsf{2}\,\mathsf{i}\,\mathsf{3}}\; \mathsf{y_u}^{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{4}}\; \left(\,\mathsf{c_{\gamma}}^2\;+\; \mathsf{s_{\gamma}}^2\,\right) \; \mathsf{LF_{4,1,-2}}\left[\,\tilde{\mu}\;,\; \mathsf{m_2}\,\right] \; - \; \mathsf{g_2}^2\; \mathsf{s_{\gamma}}^2\; \overline{y_u}^{\mathsf{i}\,\mathsf{2}\,\mathsf{i}\,\mathsf{3}}\; \mathsf{y_u}^{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{4}}\; \left(\,\mathsf{c_{\gamma}}^2\;+\; \mathsf{s_{\gamma}}^2\,\right) \; \mathsf{LF_{4,1,-2}}\left[\,\tilde{\mu}\;,\; \mathsf{m_2}\,\right] \; - \; \mathsf{g_2}^2\; \mathsf{g
                                                                                                                                                   3 m_2 \widetilde{\mu} c_{\gamma} g_2^2 s_{\gamma}^3 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{4,1,-1} [\widetilde{\mu}, m_2] +
                                                                                                                                                   g_{2}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i\, 2\, i\, 3}\; y_{u}{}^{i\, 1\, i\, 4}\; \left(c_{\gamma}{}^{2}\; +\; s_{\gamma}{}^{2}\right)\; \mathsf{LF}_{5,1,-3}\left[\,\widetilde{\mu}\; ,\; \mathsf{m}_{2}\,\right]\; +\; 2\; \mathsf{m}_{2}\; \widetilde{\mu}\; c_{\gamma}\; g_{2}{}^{2}\; s_{\gamma}{}^{3}\; \overline{y_{u}}{}^{i\, 2\, i\, 3}\; y_{u}{}^{i\, 1\, i\, 4}\; \mathsf{LF}_{5,1,-2}\left[\,\widetilde{\mu}\; ,\; \mathsf{m}_{2}\,\right]\; -\; 2\; \mathsf{m}_{2}\; \widetilde{\mu}\; c_{\gamma}\; g_{2}{}^{2}\; s_{\gamma}{}^{3}\; \overline{y_{u}}{}^{i\, 2\, i\, 3}\; y_{u}{}^{i\, 1\, i\, 4}\; \mathsf{LF}_{5,1,-2}\left[\,\widetilde{\mu}\; ,\; \mathsf{m}_{2}\,\right]\; -\; 2\; \mathsf{m}_{2}\; \widetilde{\mu}\; c_{\gamma}\; g_{2}{}^{2}\; s_{\gamma}{}^{3}\; \overline{y_{u}}{}^{i\, 2\, i\, 3}\; y_{u}{}^{i\, 1\, i\, 4}\; \mathsf{LF}_{5,1,-2}\left[\,\widetilde{\mu}\; ,\; \mathsf{m}_{2}\,\right]\; -\; 2\; \mathsf{m}_{2}\; \widetilde{\mu}\; c_{\gamma}\; g_{2}{}^{2}\; s_{\gamma}{}^{3}\; \overline{y_{u}}{}^{i\, 2\, i\, 3}\; y_{u}{}^{i\, 1\, i\, 4}\; \mathsf{LF}_{5,1,-2}\left[\,\widetilde{\mu}\; ,\; \mathsf{m}_{2}\,\right]\; -\; 2\; \mathsf{m}_{2}\; \widetilde{\mu}\; c_{\gamma}\; g_{2}{}^{2}\; s_{\gamma}{}^{3}\; \overline{y_{u}}{}^{i\, 2\, i\, 3}\; y_{u}{}^{i\, 1\, i\, 4}\; \mathsf{LF}_{5,1,-2}\left[\,\widetilde{\mu}\; ,\; \mathsf{m}_{2}\,\right]\; -\; 2\; \mathsf{m}_{2}\; \widetilde{\mu}\; c_{\gamma}\; g_{2}{}^{2}\; s_{\gamma}{}^{3}\; \overline{y_{u}}{}^{i\, 2\, i\, 3}\; y_{u}{}^{i\, 1\, i\, 4}\; \mathsf{LF}_{5,1,-2}\left[\,\widetilde{\mu}\; ,\; \mathsf{m}_{2}\,\right]\; -\; 2\; \mathsf{m}_{2}\; \widetilde{\mu}\; c_{\gamma}\; g_{2}{}^{2}\; s_{\gamma}{}^{3}\; \overline{y_{u}}{}^{i\, 2\, i\, 3}\; y_{u}{}^{i\, 1\, i\, 4}\; \mathsf{LF}_{5,1,-2}\left[\,\widetilde{\mu}\; ,\; \mathsf{m}_{2}\,\right]\; -\; 2\; \mathsf{m}_{2}\; \widetilde{\mu}\; c_{\gamma}\; g_{2}{}^{2}\; s_{\gamma}{}^{3}\; \overline{y_{u}}\; s_{\gamma}{}^{2}\; s_{\gamma}{}^{3}\; s_{\gamma}{}^{2}\; s_{\gamma}{}^{3}\; s_
                                                                                                                                                           \frac{1}{24} \; \frac{1}{m_{\text{d}}^2} \; c_{\text{Y}}^2 \; \overline{y_{\text{d}}}^{\text{12p}} \; y_{\text{d}}^{\text{rp}} \; \overline{y_{\text{u}}}^{\text{ri3}} \; y_{\text{u}}^{\text{ili4}} \; \mathsf{LF}_{2,1,-1} \big[ \tilde{\mu} \; , \; \mathsf{m}_{\tilde{\text{d}}}^{\text{p}} \big] \; - \; \frac{1}{27} \; g_{\text{1}}^2 \; \overline{y_{\text{d}}}^{\text{12p}} \; y_{\text{d}}^{\text{ilp}} \; \mathsf{LF}_{2,1,0} \big[ \tilde{\mu} \; , \; \mathsf{m}_{\tilde{\text{d}}}^{\text{p}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{27} \; g_{\text{d}}^2 \; \overline{y_{\text{d}}}^{\text{i2p}} \; y_{\text{d}}^{\text{i1p}} \; \mathsf{LF}_{2,1,0} \big[ \tilde{\mu} \; , \; \mathsf{m}_{\tilde{\text{d}}}^{\text{p}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{27} \; g_{\text{d}}^2 \; \overline{y_{\text{d}}}^{\text{i2p}} \; y_{\text{d}}^{\text{i1p}} \; \mathsf{LF}_{2,1,0} \big[ \tilde{\mu} \; , \; \mathsf{m}_{\tilde{\text{d}}}^{\text{p}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{27} \; g_{\text{d}}^2 \; \overline{y_{\text{d}}}^{\text{i2p}} \; y_{\text{d}}^{\text{i1p}} \; \mathsf{LF}_{2,1,0} \big[ \tilde{\mu} \; , \; \mathsf{m}_{\tilde{\text{d}}}^{\text{p}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{27} \; g_{\text{d}}^2 \; \overline{y_{\text{d}}}^{\text{i2p}} \; y_{\text{d}}^{\text{i1p}} \; \mathsf{LF}_{2,1,0} \big[ \tilde{\mu} \; , \; \mathsf{m}_{\tilde{\text{d}}}^{\text{p}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{27} \; g_{\text{d}}^2 \; \overline{y_{\text{d}}}^{\text{i2p}} \; y_{\text{d}}^{\text{i1p}} \; \mathsf{LF}_{2,1,0} \big[ \tilde{\mu} \; , \; \mathsf{m}_{\tilde{\text{d}}}^{\text{p}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{27} \; g_{\text{d}}^2 \; \overline{y_{\text{d}}}^{\text{i2p}} \; y_{\text{d}}^{\text{i1p}} \; \mathsf{LF}_{2,1,0} \big[ \tilde{\mu} \; , \; \mathsf{m}_{\tilde{\text{d}}}^{\text{p}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{27} \; g_{\text{d}}^2 \; \overline{y_{\text{d}}}^{\text{i2p}} \; y_{\text{d}}^{\text{i1p}} \; \mathsf{LF}_{2,1,0} \big[ \tilde{\mu} \; , \; \mathsf{m}_{\tilde{\text{d}}}^{\text{p}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{27} \; g_{\text{d}}^2 \; \overline{y_{\text{d}}}^{\text{i2p}} \; y_{\text{d}}^{\text{i2p}} \; y_{\text{d}}
                                                                                                                                                               \frac{5}{54} \ g_1{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \tilde{\mu} \mbox{, } \mathsf{m}_{\bar{d}}{}^p \big] \ \delta_{i3i4} + \frac{1}{54} \ g_1{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{4,1,-2} \big[ \tilde{\mu} \mbox{, } \mathsf{m}_{\bar{d}}{}^p \big] \ \delta_{i3i4} - \frac{1}{54} \ g_1{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{4,1,-2} \big[ \tilde{\mu} \mbox{, } \mathsf{m}_{\bar{d}}{}^p \big] \ \delta_{i3i4} - \frac{1}{54} \ g_1{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i2p} \ y_d{}^{i2p} \ \mathsf{LF}_{4,1,-2} \big[ \tilde{\mu} \mbox{, } \mathsf{m}_{\bar{d}}{}^p \big] \ \delta_{i3i4} - \frac{1}{54} \ g_1{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i2p} \ y_d{}^{i2p} \ \mathsf{LF}_{4,1,-2} \big[ \tilde{\mu} \mbox{, } \mathsf{m}_{\bar{d}}{}^p \big] \ \delta_{i3i4} - \frac{1}{54} \ g_1{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i2p} \ y_d{}^{i2p} \ \mathsf{LF}_{4,1,-2} \big[ \tilde{\mu} \mbox{, } \mathsf{m}_{\bar{d}}{}^p \big] \ \delta_{i3i4} - \frac{1}{54} \ g_1{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i2p} \ y_d{}^{i2p} \ \mathsf{LF}_{4,1,-2} \big[ \tilde{\mu} \mbox{, } \mathsf{m}_{\bar{d}}{}^p \big] \ \delta_{i3i4} - \frac{1}{54} \ g_1{}^2 \ y_d{}^{i2p} \ y_d{}^{i2p} \ y_d{}^{i2p} \ \mathsf{LF}_{4,1,-2} \big[ \tilde{\mu} \mbox{, } \mathsf{m}_{\bar{d}}{}^p \big] \ \delta_{i3i4} - \frac{1}{54} \ y_d{}^{i2p} \ y_d{}^{i
                                                                                                                                                                                                                                     \frac{1}{m_{\text{o}}^2}\;c_{\text{Y}}^2\;\overline{y_d}^{\text{pr}}\;y_d^{\;\text{ilr}}\;\overline{y_u^{\;\text{i2i3}}}\;y_u^{\;\text{pi4}}\;\mathsf{LF}_{2,1,-1}\!\left[\widetilde{\mu}\,,\;m_{\overset{\cdot}{d}}^{\;\text{-}r}\right]\;-
                                                                                                                                                           \frac{1}{12}~\frac{1}{m_{\text{g}}^2}~c_{\text{Y}}^2~\overline{y_u}^{\text{pr}}~\overline{y_u}^{\text{i2i3}}~y_u^{\text{pi4}}~y_u^{\text{i1r}}~\mathsf{LF_{2,1,-1}}\big[\,\widetilde{\mu}\,,~m_{\widetilde{q}}^{\text{-p}}\,\big]~+
                                                                                                                                                               \frac{1}{108} \ {\rm g_1}^2 \ \overline{{\rm y_u^{pi3}}} \ {\rm y_u^{pi4}} \ {\rm LF_{2,1,0}} \left[ \widetilde{\mu} \, , \, {\rm m_{\tilde{q}}}^{\rm p} \right] \ \delta_{\rm ili2} \, - \, \frac{11}{108} \ {\rm g_1}^2 \ \overline{{\rm y_u^{pi3}}} \ {\rm y_u^{pi4}} \ {\rm LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \, {\rm m_{\tilde{q}}}^{\rm p} \right] \ \delta_{\rm ili2} \, + \, \frac{1}{108} \ {\rm g_{10}} \ {\rm y_{10}} \ {\rm b_{10}} \ {\rm y_{10}} \ {\rm b_{10}} \ {\rm b
                                                                                                                                                           \frac{1}{27} \ g_1{}^2 \ \overline{y_u}{}^{pi3} \ y_u{}^{pi4} \ LF_{4,1,-2} \big[ \widetilde{\mu} \, , \ m_{\tilde{q}}{}^p \big] \ \delta_{i1i2} - \frac{1}{12} \ \frac{1}{m_0{}^2} \ c_{\gamma}{}^2 \ \overline{y_u}{}^{ri3} \ \overline{y_u}{}^{i2p} \ y_u{}^{rp} \ y_u{}^{i1i4} \ LF_{2,1,-1} \big[ \widetilde{\mu} \, , \ m_{\tilde{q}}{}^r \big] - \frac{1}{12} \ m_0{}^2 \ c_{\gamma}{}^2 \ \overline{y_u}{}^{ri3} \ \overline{y_u}{}^{i2p} \ y_u{}^{rp} \ y_u{}^{i1i4} \ LF_{2,1,-1} \big[ \widetilde{\mu} \, , \ m_{\tilde{q}}{}^r \big] - \frac{1}{12} \ m_0{}^2 \ c_{\gamma}{}^2 \ \overline{y_u}{}^{ri3} \ \overline{y_u}{}^{i2p} \ y_u{}^{rp} \ y_u{}^{i1i4} \ LF_{2,1,-1} \big[ \widetilde{\mu} \, , \ m_{\tilde{q}}{}^r \big] - \frac{1}{12} \ m_0{}^2 \ c_{\gamma}{}^2 \ \overline{y_u}{}^{ri3} \ \overline{y_u}{}^{i2p} \ y_u{}^{rp} \ y_u{}^{i1i4} \ LF_{2,1,-1} \big[ \widetilde{\mu} \, , \ m_{\tilde{q}}{}^r \big] - \frac{1}{12} \ m_0{}^2 \ c_{\gamma}{}^2 \ \overline{y_u}{}^{ri3} \ \overline{y_u}{}^{i2p} \ y_u{}^{rp} \ y_u{}^{r
                                                                                                                                                       \frac{1}{24} \ \frac{1}{m_{_{0}}{^{2}}} \ c_{_{Y}}{^{2}} \ \overline{y_{u}}^{i2p} \ y_{u}{^{rp}} \ y_{u}{^{i1i4}} \ LF_{2,1,_{-1}} \big[ \widetilde{\mu} \ , \ m_{\bar{u}}{^{p}} \big] + \frac{2}{27} \ g_{1}{^{2}} \ \overline{y_{u}}{^{i2p}} \ y_{u}{^{i1p}} \ LF_{2,1,_{0}} \big[ \widetilde{\mu} \ , \ m_{\bar{u}}{^{p}} \big] \ \delta_{i3i4} + \frac{1}{2} \ c_{_{1}} \ c_{_{2}} \ c_{_{2
                                                                                                                                                           \frac{1}{54} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \tilde{\mu} \, , \, \mathsf{m}_{\bar{u}}{}^{p} \big] \ \delta_{i3i4} \, + \, \frac{1}{54} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ \mathsf{LF}_{4,1,-2} \big[ \tilde{\mu} \, , \, \mathsf{m}_{\bar{u}}{}^{p} \big] \ \delta_{i3i4} \, - \, \frac{1}{54} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ \mathsf{LF}_{4,1,-2} \big[ \tilde{\mu} \, , \, \mathsf{m}_{\bar{u}}{}^{p} \big] \ \delta_{i3i4} \, - \, \frac{1}{54} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ \mathsf{LF}_{4,1,-2} \big[ \tilde{\mu} \, , \, \mathsf{m}_{\bar{u}}{}^{p} \big] \ \delta_{i3i4} \, - \, \frac{1}{54} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ \mathsf{LF}_{4,1,-2} \big[ \tilde{\mu} \, , \, \mathsf{m}_{\bar{u}}{}^{p} \big] \ \delta_{i3i4} \, - \, \frac{1}{54} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ \mathsf{LF}_{4,1,-2} \big[ \tilde{\mu} \, , \, \, \mathsf{m}_{\bar{u}}{}^{p} \big] \ \delta_{i3i4} \, - \, \frac{1}{54} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i1p} \ \mathsf{LF}_{4,1,-2} \big[ \tilde{\mu} \, , \, \, \mathsf{m}_{\bar{u}}{}^{p} \big] \ \delta_{i3i4} \, - \, \frac{1}{54} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{i2p} \ y_{
                                                                                                                                                       \frac{1}{24}\;\frac{1}{{\rm m_o}^2}\;{\rm c_Y}^2\;\overline{{\rm y_u}}^{\rm pr}\;\overline{{\rm y_u}}^{\rm i2i3}\;{\rm y_u}^{\rm pi4}\;{\rm y_u}^{\rm i1r}\;{\rm LF_{2,1,-1}}\big[\widetilde{\mu},\,{\rm m_{\tilde{u}}}^{\rm r}\big]\;.
                                                                                                                                                           \frac{1}{27} \; m_1 \; c_{\gamma} \; g_1^2 \; \frac{1}{m_0^2} \; \overline{y_u}^{\text{i2i3}} \; \left( c_{\gamma} \; a_u^{\text{i1i4}} + s_{\gamma} \; \widetilde{\mu} \; y_u^{\text{i1i4}} \right) \; \mathsf{LF}_{1,1,1,0} \left[ m_1 \; , \; m_{\widetilde{q}}^{\text{i1}} \; , \; m_{\widetilde{u}}^{\text{i4}} \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; y_u^{\text{i1i4}} \; + \; c_{\gamma} \; \widetilde{\mu} \; y_u^
                                                                                                                                                           \frac{1}{108} \; m_1 \; s_\gamma \; g_1^{\; 2} \; \overline{y_u}^{i2i3} \; \left( s_\gamma \; a_u^{\; i1i4} - \widetilde{\mu} \; c_\gamma \; y_u^{\; i1i4} \right) \; LF_{2,2,1,-1} \big[ m_1 \text{, } m_{\tilde{q}}^{\; i1} \text{, } m_{\tilde{u}}^{\; i4} \big] \; + \\ \frac{1}{108} \; m_1 \; s_\gamma \; g_1^{\; 2} \; \overline{y_u}^{\; i2i3} \; \left( s_\gamma \; a_u^{\; i1i4} - \widetilde{\mu} \; c_\gamma \; y_u^{\; i1i4} \right) \; LF_{2,2,1,-1} \big[ m_1 \text{, } m_{\tilde{q}}^{\; i1} \text{, } m_{\tilde{u}}^{\; i4} \big] \; + \\ \frac{1}{108} \; m_1 \; s_\gamma \; g_1^{\; 2} \; \overline{y_u}^{\; i2i3} \; \left( s_\gamma \; a_u^{\; i1i4} - \widetilde{\mu} \; c_\gamma \; y_u^{\; i1i4} \right) \; LF_{2,2,1,-1} \big[ m_1 \text{, } m_{\tilde{q}}^{\; i1} \text{, } m_{\tilde{u}}^{\; i4} \big] \; + \\ \frac{1}{108} \; m_1 \; s_\gamma \; g_1^{\; 2} \; \overline{y_u}^{\; i2i3} \; \left( s_\gamma \; a_u^{\; i1i4} - \widetilde{\mu} \; c_\gamma \; y_u^{\; i1i4} \right) \; LF_{2,2,1,-1} \big[ m_1 \text{, } m_{\tilde{q}}^{\; i1} \text{, } m_{\tilde{q}}^{\; i2} \big] \; + \\ \frac{1}{108} \; m_1 \; s_\gamma \; g_1^{\; 2} \; \overline{y_u}^{\; i2i3} \; \left( s_\gamma \; a_u^{\; i1i4} - \widetilde{\mu} \; c_\gamma \; y_u^{\; i1i4} \right) \; LF_{2,2,1,-1} \big[ m_1 \text{, } m_{\tilde{q}}^{\; i1} \text{, } m_{\tilde{q}}^{\; i2} \right] \; + \\ \frac{1}{108} \; m_1 \; s_\gamma \; g_1^{\; 2} \; \overline{y_u}^{\; i2i3} \; \left( s_\gamma \; a_u^{\; i1i4} - \widetilde{\mu} \; c_\gamma \; y_u^{\; i1i4} \right) \; LF_{2,2,1,-1} \big[ m_1 \text{, } m_{\tilde{q}}^{\; i1} \text{, } m_{\tilde{q}}^{\; i1} \right] \; + \\ \frac{1}{108} \; m_1 \; s_\gamma \; g_1^{\; i2i3} \; \left( s_\gamma \; a_u^{\; i1i4} - \widetilde{\mu} \; c_\gamma \; y_u^{\; i1i4} \right) \; LF_{2,2,1,-1} \big[ m_1 \text{, } m_{\tilde{q}}^{\; i1} \text{, } m_{\tilde{q}}^{\; i1} \right] \; + \\ \frac{1}{108} \; m_1 \; s_\gamma \; g_1^{\; i2i3} \; \left( s_\gamma \; a_u^{\; i1i4} - \widetilde{\mu} \; c_\gamma \; y_u^{\; i1i4} \right) \; LF_{2,2,1,-1} \big[ m_1 \; s_\gamma \; a_u^{\; i1i4} + \widetilde{\mu} \; c_\gamma \; y_u^{\; i1i4} \right] \; + \\ \frac{1}{108} \; m_1 \; s_\gamma \; g_1^{\; i2i3} \; \left( s_\gamma \; a_u^{\; i1i4} + \widetilde{\mu} \; c_\gamma \; y_u^{\; i1i4} \right) \; LF_{2,2,1} \big[ m_1 \; s_\gamma \; a_u^{\; i1i4} + \widetilde{\mu} \; c_\gamma \; y_u^{\; i1i4} \right] \; + \\ \frac{1}{108} \; m_1 \; s_\gamma \; a_u^{\; i1i4} + \widetilde{\mu} \; c_\gamma \; y_u^{\; i1i4} + \widetilde{\mu} \;
                                                                                                                                                           \frac{1}{36} \ g_1^2 \ \frac{1}{m_{_{0}}^2} \ c_{_{Y}}^2 \ \overline{y_u}^{i2i3} \ y_u^{i1i4} \ LF_{1,1,1,-1} \big[ m_1, \ m_{_{\tilde{q}}}^{i1}, \ \widetilde{\mu} \big] \ -
                                                                                                                                                           \frac{1}{36}\;\mathsf{m_1}\;\mathsf{s_{\scriptscriptstyle Y}}\,\tilde{\mu}\;\mathsf{c_{\scriptscriptstyle Y}}\;\mathsf{g_1}^2\;\frac{1}{\mathsf{m_0}^2}\;\overline{\mathsf{y_u}}^{\mathsf{i2i3}}\;\mathsf{y_u}^{\mathsf{i1i4}}\;\mathsf{LF_{1,1,1,0}}\big[\mathsf{m_1},\,\mathsf{m_{\tilde{q}}}^{\mathsf{i1}},\,\tilde{\mu}\big]\;\mathsf{-}
                                                                                                                                                           \frac{1}{27} \; m_1 \; c_{\gamma} \; g_1{}^2 \; \frac{1}{m_{\theta}{}^2} \; y_u^{\; \text{ili4}} \; \left( c_{\gamma} \; \overline{a_u}^{\; \text{i2i3}} + s_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \right) \; \mathsf{LF}_{1,1,1,\theta} \left[ \, m_1 \, , \; m_{\tilde{q}}^{\; \text{i2}} \, , \; m_{\tilde{u}}^{\; \text{i3}} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \right] \; \mathsf{LF}_{1,1,1,\theta} \left[ \, m_1 \, , \; m_{\tilde{q}}^{\; \text{i2}} \, , \; m_{\tilde{u}}^{\; \text{i3}} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \right] \; \mathsf{LF}_{1,1,1,\theta} \left[ \, m_1 \, , \; m_{\tilde{q}}^{\; \text{i2i3}} \, , \; m_{\tilde{u}}^{\; \text{i3i3}} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \overline{y_u}^{\; \text{i
                                                                                                                                                           \frac{1}{108}\; \mathbf{m_1}\; \mathbf{s_{\gamma}}\; \mathbf{g_{1}}^{2}\; \mathbf{y_u}^{\text{ili4}}\; \left(\mathbf{s_{\gamma}}\; \overline{\mathbf{a_u}}^{\text{i2i3}} - \widetilde{\mu}\; \mathbf{c_{\gamma}}\; \overline{\mathbf{y_u}}^{\text{i2i3}}\right)\; \mathsf{LF_{2,2,1,-1}} \left[\mathbf{m_1}\;,\; \mathbf{m_{\tilde{q}}}^{\text{i2}}\;,\; \mathbf{m_{\tilde{u}}}^{\text{i3}}\right] \; - \; \widetilde{\mathbf{m_{\tilde{q}}}}^{\text{i2i3}} + \widetilde{\mathbf{m_{\tilde{q}}}}^{\text{i2i
                                                                                                                                                       \frac{1}{81}\;g_{1}{}^{4}\;\mathsf{LF}_{2,1,1,-1}\big[\mathsf{m}_{1}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}2}\;\delta_{\dot{1}3\dot{1}4} - \frac{2}{81}\;g_{1}{}^{4}\;\mathsf{m}_{1}{}^{2}\;\mathsf{LF}_{2,1,1,0}\big[\mathsf{m}_{1}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\big]\;\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}3\dot{1}4} + \frac{2}{81}\;g_{1}{}^{4}\;\mathsf{m}_{1}{}^{2}\;\mathsf{LF}_{2,1,1,0}\big[\mathsf{m}_{1}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\big]\;\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}3\dot{1}4} + \frac{2}{81}\;g_{1}{}^{4}\;\mathsf{m}_{1}{}^{2}\;\mathsf{LF}_{2,1,1,0}\big[\mathsf{m}_{1}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\big]\;\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}4} + \frac{2}{81}\;g_{1}{}^{4}\;\mathsf{m}_{1}{}^{2}\;\mathsf{LF}_{2,1,1,0}\big[\mathsf{m}_{1}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{2}{81}\;g_{1}{}^{4}\;\mathsf{m}_{1}{}^{2}\;\mathsf{LF}_{2,1,1,0}\big[\mathsf{m}_{1}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{2}{81}\;g_{1}{}^{\dot{1}4}\,,\,\mathsf{m}_{1}{}^{\dot{1}4}\big[\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\,,\,\mathsf{m}_
                                                                                                                                                           \frac{1}{36}~g_{1}^{2}~\frac{1}{m_{_{0}}^{2}}~c_{\gamma}^{2}~\overline{y_{u}}^{\text{i2i3}}~y_{u}^{\text{i1i4}}~\mathsf{LF}_{1,1,1,-1}\big[\mathsf{m}_{1},~\mathsf{m}_{\bar{q}}^{\text{i2}},~\widetilde{\mu}\big]~-
                                                                                                                                                           \frac{1}{108} \; m_1 \; s_{\gamma} \; g_{1}^{\; 2} \; y_{u}^{\; \text{ili4}} \; \left( s_{\gamma} \; \overline{a_{u}}^{\; \text{i2i3}} - \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; \text{i2i3}} \right) \; \mathsf{LF}_{2,2,1,-1} \big[ m_1 \, , \; m_{\tilde{u}}^{\; \text{i3}} \, , \; m_{\tilde{q}}^{\; \text{i2}} \big] \; - \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; \text{i2i3}} + \widetilde{\mu}
                                                                                                                                                       \frac{1}{9}~g_1^2~\frac{1}{m_0^2}~c_{\gamma}^2~\overline{y_u}^{i2i3}~y_u^{i1i4}~\mathsf{LF_{1,1,1,-1}}\big[\,m_1^{},~m_{\tilde{u}}^{\,i3}^{},~\widetilde{\mu}\,\big] +
                                                                                                                                                                                            \mathbf{m_1} \; \mathbf{s_{\gamma}} \; \widetilde{\boldsymbol{\mu}} \; \mathbf{c_{\gamma}} \; \mathbf{g_1}^2 \; \frac{1}{\mathbf{m_s}^2} \; \overline{\mathbf{y_u}}^{\mathbf{i2i3}} \; \mathbf{y_u}^{\mathbf{i1i4}} \; \mathbf{LF_{1,1,1,0}} \big[ \, \mathbf{m_1} \, , \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \, , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i3}} \; , \; \widetilde{\boldsymbol{\mu}} \, \big] \; + \; \mathbf{m_{\bar{u}}}^{\mathbf{i
                                                                                                                                                           \frac{1}{108}\; \mathbf{m_1}\; \mathbf{s_{\gamma}}\; \mathbf{g_1}^2\; \overline{\mathbf{y_u}}^{\mathbf{i}\mathbf{2}\mathbf{i}\mathbf{3}}\; \left(\mathbf{s_{\gamma}}\; \mathbf{a_u}^{\mathbf{i}\mathbf{1}\mathbf{i}\mathbf{4}} - \widetilde{\mu}\; \mathbf{c_{\gamma}}\; \mathbf{y_u}^{\mathbf{i}\mathbf{1}\mathbf{i}\mathbf{4}}\right)\; \mathsf{LF_{2,2,1,-1}}\big[\mathbf{m_1},\; \mathbf{m_{\tilde{u}}}^{\mathbf{i}\mathbf{4}},\; \mathbf{m_{\tilde{q}}}^{\mathbf{i}\mathbf{1}}\big] \; - \widetilde{\mu}\; \mathbf{m_{\tilde{u}}}^{\mathbf{i}\mathbf{4}} + \widetilde{\mu}\; \mathbf{m_{
                                                                                                                                                       \frac{1}{9} \; g_{1}^{2} \; \frac{1}{m_{0}^{2}} \; c_{\gamma}^{2} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; \mathsf{LF}_{1,1,1,-1} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\tilde{u}}^{\; i4} \, , \; \widetilde{\mu} \, \big] \; + \\
                                                                                                                                                       \frac{1}{9}~m_1~s_{\Upsilon}~\tilde{\mu}~c_{\Upsilon}~g_1^2~\frac{1}{m_{_0}^2}~\overline{y_u^{_1213}}~y_u^{_{1114}}~LF_{1,1,1,0}\bigl[m_1,~m_{\tilde{u}}^{_{114}},~\tilde{\mu}\bigr]~+
                                                                                                                                                           \frac{1}{72} g_1^2 s_{\gamma}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,2,1,-2}[m_1, \tilde{\mu}, m_{\tilde{q}}^{i1}] +
                                                                                                                                                           \frac{1}{72} m_1 s_\gamma \tilde{\mu} c_\gamma g_1^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,2,1,-1}[m_1, \tilde{\mu}, m_{\tilde{q}}^{i1}] +
                                                                                                                                                       \frac{1}{72} g_1^2 s_{\gamma}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,2,1,-2}[m_1, \tilde{\mu}, m_{\tilde{q}}^{i2}] +
                                                                                                                                                           \frac{1}{72} m_1 s_\gamma \tilde{\mu} c_\gamma g_1^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,2,1,-1}[m_1, \tilde{\mu}, m_{\tilde{q}}^{i2}] -
                                                                                                                                                       \frac{1}{18}\;{\rm g_1}^2\;{\rm s_\gamma}^2\;\overline{{\rm y_u}}^{\rm i2i3}\;{\rm y_u}^{\rm i1i4}\;{\rm LF_{2,2,1,-2}}\big[\,{\rm m_1,}\;\tilde{\mu},\;{\rm m_{\tilde{u}}}^{\rm i3}\big]\;-
                                                                                                                                                                        \frac{1}{18} \, \mathsf{m_1} \, \mathsf{s_{\scriptscriptstyle Y}} \, \widetilde{\mu} \, \mathsf{c_{\scriptscriptstyle Y}} \, \mathsf{g_1}^2 \, \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \, \mathsf{y_u}^{\mathsf{i1i4}} \, \mathsf{LF_{2,2,1,-1}} \big[ \, \mathsf{m_1}, \, \widetilde{\mu}, \, \mathsf{m_{\tilde{u}}}^{\mathsf{i3}} \big] \, - \,
                                                                                                                                                           \frac{1}{18} g_1^2 s_\gamma^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,2,1,-2}[m_1, \tilde{\mu}, m_{\tilde{u}}^{i4}] -
                                                                                                                                                                        \frac{1}{18} m_1 s_{\gamma} \tilde{\mu} c_{\gamma} g_1^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,2,1,-1}[m_1, \tilde{\mu}, m_{\tilde{u}}^{i4}] -
                                                                                                                                                       \frac{1}{4}~g_2^2~\frac{1}{m_s^2}~c_{\gamma}^2~\overline{y_u}^{i2i3}~y_u^{i1i4}~\mathsf{LF_{1,1,1,-1}}\big[\,m_2^{}\,,~m_{\tilde{q}}^{~i1}\,,~\widetilde{\mu}\,\big]~+
                                                                                                                                                       \frac{1}{4}~\text{m}_2~\text{s}_{\scriptscriptstyle \Upsilon}~\tilde{\mu}~\text{c}_{\scriptscriptstyle \Upsilon}~\text{g}_2^{\,2}~\frac{1}{\text{m}_\text{o}^{\,2}}~\overline{\text{y}_\text{u}}^\text{i2i3}~\text{y}_\text{u}^\text{i1i4}~\text{LF}_\text{1,1,1,0}\left[\text{m}_2\,,~\text{m}_{\tilde{q}}^\text{i1},~\tilde{\mu}\right]~-
                                                                                                                                                       \frac{1}{4} \; g_{2}^{2} \; \frac{1}{m_{0}^{2}} \; c_{\gamma}^{2} \; \overline{y_{u}}^{\text{i2i3}} \; y_{u}^{\text{i1i4}} \; \mathsf{LF}_{1,1,1,-1} \big[ \, \mathsf{m}_{2} \, , \; \mathsf{m}_{\tilde{q}}^{\text{i2}} \, , \; \widetilde{\mu} \, \big] \; + \\
                                                                                                                                                       \frac{1}{4}~\text{m}_2~\text{s}_{\scriptscriptstyle \Upsilon}~\widetilde{\mu}~\text{c}_{\scriptscriptstyle \Upsilon}~\text{g}_2^{\:2}~\frac{1}{\text{m}_\text{o}^{\:2}}~\overline{\text{y}_\text{u}}^\text{i2i3}~\text{y}_\text{u}^\text{i1i4}~\text{LF}_\text{1,1,1,0}\big[\text{m}_2\,,~\text{m}_{\tilde{q}}^{\:i2}\,,~\widetilde{\mu}\big]~-
                                                                                                                                                       \frac{1}{8}~g_2^2~s_{\gamma}^2~\overline{y_u}^{i2i3}~y_u^{~i1i4}~LF_{2,2,1,-2}\big[\text{m}_2\,,~\widetilde{\mu}\,,~\text{m}_{\tilde{q}}^{~i1}\big] –
                                                                                                                                                                                            \mathbf{m_2} \; \mathbf{s_{\gamma}} \; \widetilde{\boldsymbol{\mu}} \; \mathbf{c_{\gamma}} \; \mathbf{g_2}^2 \; \overline{\mathbf{y_u}}^{\texttt{i2i3}} \; \mathbf{y_u}^{\texttt{i1i4}} \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathbf{m_2} \, , \; \widetilde{\boldsymbol{\mu}} \, , \; \mathbf{m_{\tilde{q}}}^{\texttt{i1}} \big] \; - \;
                                                                                                                                                       \frac{1}{8}~g_{2}^{~2}~s_{\gamma}^{~2}~\overline{y_{u}}^{i\,2i\,3}~y_{u}^{~i\,1i\,4}~LF_{2,2,1,-2}\big[\,m_{2}\,,~\tilde{\mu}\,,~m_{\tilde{q}}
                                                                                                                                                                                                \textbf{m}_2 \; \textbf{s}_{\gamma} \; \widetilde{\mu} \; \textbf{c}_{\gamma} \; \textbf{g}_2^{\; 2} \; \overline{\textbf{y}_u}^{\textbf{i}2\textbf{i}3} \; \textbf{y}_u^{\; \textbf{i}1\textbf{i}4} \; \textbf{LF}_{\textbf{2},\textbf{2},\textbf{1},\textbf{-1}} \big[ \, \textbf{m}_2 \, , \; \widetilde{\mu} \, , \; \textbf{m}_{\tilde{\textbf{q}}}^{\; \textbf{i}2} \, \big] \; - \;
                                                                                                                                                       \frac{4}{9} \; \mathsf{m_3} \; \mathsf{c_{Y}} \; \mathsf{g_3}^2 \; \frac{1}{\mathsf{m_0}^2} \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \; \left( \mathsf{c_{Y}} \; \mathsf{a_u}^{\mathsf{i1i4}} + \mathsf{s_{Y}} \; \widetilde{\boldsymbol{\mu}} \; \mathsf{y_u}^{\mathsf{i1i4}} \right) \; \mathsf{LF_{1,1,1,0}} \big[ \, \mathsf{m_3} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \, , \; \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \big] \; + \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \, , \; \mathsf{m_{
                                                                                                                                                           \frac{1}{q} \; m_3 \; s_{\gamma} \; g_3^2 \; \overline{y_u^{\text{i2i3}}} \; \left( s_{\gamma} \; a_u^{\text{i1i4}} - \widetilde{\mu} \; c_{\gamma} \; y_u^{\text{i1i4}} \right) \; LF_{2,2,1,-1} \big[ m_3 \, , \; m_{\tilde{q}}^{\text{i1}} \, , \; m_{\tilde{u}}^{\text{i4}} \big] \; - \widetilde{\mu} \; c_{\gamma} \; y_u^{\text{i1i4}} + \widetilde{\mu} \; c_{\gamma} \; y_u^{\text{i1i4}} 
                                                                                                                                                       \frac{1}{9} \; m_3 \; s_{\gamma} \; g_3^2 \; y_u^{\; \text{ili4}} \; \left( s_{\gamma} \; \overline{a_u}^{\; \text{i2i3}} - \widetilde{\mu} \; c_{\gamma} \; \overline{y_u}^{\; \text{i2i3}} \right) \; LF_{2,2,1,-1} \big[ \, m_3 \, , \; m_{\tilde{q}}^{\; \text{i2}} \, , \; m_{\tilde{u}}^{\; \text{i3}} \big] \; - \widetilde{\mu} \; c_{\gamma} \; \overline{y_u}^{\; \text{i2i3}} + \widetilde{\mu} \; 
                                                                                                                                                       \frac{2}{9}\;g_{3}{}^{4}\;\mathsf{LF}_{2,1,1,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\tilde{u}}{}^{\dot{1}4}\right]\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{4}}-\frac{4}{9}\;g_{3}{}^{4}\;\mathsf{m}_{3}{}^{2}\;\mathsf{LF}_{2,1,1,0}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\tilde{u}}{}^{\dot{1}4}\right]\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{4}}+\frac{4}{9}\left[\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\right]\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{4}}+\frac{4}{9}\left[\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\right]\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{4}}+\frac{4}{9}\left[\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\right]\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}+\frac{4}{9}\left[\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\,\mathsf{m}_{3}^{\dot{1}4}\,,\,\,\mathsf{m
                                                                                                                                                                                            \mathsf{m_3} \; \mathsf{s_{Y}} \; \mathsf{g_{3}}^2 \; \mathsf{y_u}^{\mathsf{ili4}} \; \left(\mathsf{s_{Y}} \; \overline{\mathsf{a_u}}^{\mathsf{i2i3}} - \widetilde{\mu} \; \mathsf{c_{Y}} \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}}\right) \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathsf{m_3} \, , \; \mathsf{m_{\tilde{u}}}^{\mathsf{i3}} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i2}} \big] \; + \\
                                                                                                                                                       \frac{1}{q} \; \mathsf{m_3} \; \mathsf{s_{Y}} \; \mathsf{g_3}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \; \left( \mathsf{s_{Y}} \; \mathsf{a_u}^{\mathsf{i1i4}} - \widetilde{\mu} \; \mathsf{c_{Y}} \; \mathsf{y_u}^{\mathsf{i1i4}} \right) \; \mathsf{LF_{2,2,1,-1}} \big[ \; \mathsf{m_3} \; , \; \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \; , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \big] \; - \; \widetilde{\mathsf{m_{\tilde{q}}}}^{\mathsf{i1}} \; + \; \widetilde{\mathsf{m_{\tilde{q}}}}^{\mathsf{i1}} \; + \; \widetilde{\mathsf{m_{\tilde{q}}}}^{\mathsf{i1}} \, + \; \widetilde{\mathsf{m_{\tilde{q}}}^{\mathsf{i1}
                                                                                                                                                           \frac{1}{6}\;\widetilde{\mu}\;c_{\gamma}\;\frac{1}{m_{\text{m}}^{2}}\;\overline{y_{\text{d}}}^{\text{i2p}}\;\overline{y_{\text{u}}}^{\text{ri3}}\;y_{\text{u}}^{\text{i1i4}}\;\left(s_{\gamma}\;a_{\text{d}}^{\text{rp}}+\widetilde{\mu}\;c_{\gamma}\;y_{\text{d}}^{\text{rp}}\right)\;\mathsf{LF}_{1,1,1,0}\!\left[m_{\tilde{\text{d}}}^{\text{p}},\;m_{\tilde{\text{q}}}^{\text{r}},\;\widetilde{\mu}\right]\;+
                                                                                                                                                                        \frac{1}{12} \, s_{\Upsilon} \, \widetilde{\mu} \, \overline{y_{\mathsf{d}}}^{\mathsf{i2p}} \, \overline{y_{\mathsf{u}}}^{\mathsf{ri3}} \, y_{\mathsf{u}}^{\mathsf{i1i4}} \, \left( c_{\Upsilon} \, a_{\mathsf{d}}^{\mathsf{rp}} - s_{\Upsilon} \, \widetilde{\mu} \, y_{\mathsf{d}}^{\mathsf{rp}} \right) \, \mathsf{LF}_{\mathsf{2,1,1,0}} \left[ \mathsf{m}_{\breve{\mathsf{d}}}^{\mathsf{p}}, \, \mathsf{m}_{\breve{\mathsf{q}}}^{\mathsf{r}}, \, \widetilde{\mu} \right] + \\
                                                                                                                                                                        \frac{1}{12} \, \mathsf{s}_{\scriptscriptstyle Y} \, \widetilde{\mu} \, \overline{\mathsf{y}_{\mathsf{d}}}^{\mathsf{i2p}} \, \overline{\mathsf{y}_{\mathsf{u}}}^{\mathsf{ri3}} \, \mathsf{y}_{\mathsf{u}}^{\mathsf{i1i4}} \, \left( -\, \mathsf{c}_{\scriptscriptstyle Y} \, \mathsf{a_{\mathsf{d}}}^{\mathsf{rp}} + \, \mathsf{s}_{\scriptscriptstyle Y} \, \widetilde{\mu} \, \mathsf{y_{\mathsf{d}}}^{\mathsf{rp}} \right) \, \mathsf{LF}_{\mathsf{3,1,1,-1}} \big[ \, \mathsf{m}_{\check{\mathsf{d}}}^{\;\; \mathsf{p}} \, , \, \, \mathsf{m}_{\check{\mathsf{q}}} \, \big] \, \mathsf{m}_{\mathsf{q}}^{\;\; \mathsf{p}} \, \mathsf{m}_{\mathsf{q}} \, \mathsf{m}_{\mathsf{q}} \, \mathsf{m}_{\mathsf{q}}^{\;\; \mathsf{p}} \, \mathsf{m}_{\mathsf{q}} \, \mathsf{m}_{\mathsf{q}}^{\;\; \mathsf{p}} \, \mathsf{m}_{\mathsf{q}} \, \mathsf{m}_{\mathsf{q}}^{\;\; \mathsf{p}} \, \mathsf{m}_{\mathsf{q}} \, \mathsf{m}_{\mathsf{q}} \, \mathsf{m}_{\mathsf{q}}^{\;\; \mathsf{p}} \, \mathsf{m}_{\mathsf{q}} \, \mathsf{m}_{\mathsf{q}}^{\;\; \mathsf{p}} \, \mathsf{m}_{\mathsf{q}} \, \mathsf{m}_{\mathsf{q}}^{\;\; \mathsf{p}} \, \mathsf{m}_{\mathsf{q}} \, \mathsf{m}_
                                                                                                                                                                                                         \stackrel{\cdot}{\mathbf{I}} \mathbf{s}_{\gamma} \, \widetilde{\boldsymbol{\mu}} \, \overline{\mathbf{y_d}}^{\mathsf{i2p}} \, \overline{\mathbf{y_u}}^{\mathsf{ri3}} \, \mathbf{y_u}^{\mathsf{i1i4}} \, \left( - \, \mathbf{c}_{\gamma} \, \, \mathbf{a_d}^{\mathsf{rp}} + \, \mathbf{s}_{\gamma} \, \widetilde{\boldsymbol{\mu}} \, \, \mathbf{y_d}^{\mathsf{rp}} \right) \, \, \mathsf{LF}_{\mathsf{2,2,1,-1}} \big[ \, \boldsymbol{m_{\tilde{\mathsf{d}}}}^{\mathsf{-p}} , \, \, \widetilde{\boldsymbol{\mu}} \, , \, \, \boldsymbol{m_{\tilde{\mathsf{q}}}} \, \big] \, 
                                                                                                                                                           \frac{1}{6}\;\widetilde{\mu}\;c_{\gamma}\;\frac{1}{m_{\omega}^{2}}\;y_{d}^{\textrm{ilr}}\;\overline{y_{u}}^{\textrm{i2i3}}\;y_{u}^{\textrm{pi4}}\;\left(s_{\gamma}\;\overline{a_{d}}^{\textrm{pr}}+\widetilde{\mu}\;c_{\gamma}\;\overline{y_{d}}^{\textrm{pr}}\right)\;\mathsf{LF}_{1,1,1,0}\!\left[m_{\tilde{d}}^{\textrm{r}},\;m_{\tilde{q}}^{\textrm{p}},\;\widetilde{\mu}\right]\;+
                                                                                                                                                                        \frac{1}{12} \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, i1r} \, \overline{y_{u}}^{\, i2i3} \, y_{u}^{\, pi4} \, \left( c_{\gamma} \, \overline{a_{d}}^{pr} - s_{\gamma} \, \widetilde{\mu} \, \overline{y_{d}}^{pr} \right) \, \mathsf{LF}_{2,1,1,0} \left[ \mathsf{m}_{\widetilde{d}}^{\, \, r}, \, \mathsf{m}_{\widetilde{q}}^{\, \, p}, \, \widetilde{\mu} \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, \widetilde{\mu}_{d}^{\, \, pr} + \, c_{\gamma} \, \widetilde{\mu} \, \widetilde{\mu}_{d}^{\, \, pr} + \, c_{\gamma} \, \widetilde{\mu} \, \widetilde{\mu}_{d}^{\, \, pr} \right) \, \mathsf{LF}_{2,1,1,0} \left[ \mathsf{m}_{\widetilde{d}}^{\, \, r}, \, \mathsf{m}_{\widetilde{q}}^{\, \, p}, \, \widetilde{\mu} \right] \, + \, c_{\gamma} \, \widetilde{\mu}_{d}^{\, \, pr} + \, c_{\gamma} \, \widetilde{\mu}_{d
                                                                                                                                                                        \left[s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,ilr}\,\overline{y_{u}}^{i2i3}\,y_{u}^{\,pi4}\,\left(-\,c_{\gamma}\,\overline{a_{d}}^{pr}+s_{\gamma}\,\widetilde{\mu}\,\overline{y_{d}}^{pr}\right)\,\mathsf{LF_{2,2,1,-1}}\!\left[\mathsf{m}_{\bar{d}}^{\,\,r},\,\widetilde{\mu}\,,\,\mathsf{m}_{\bar{q}}^{\,\,p}\right]+\right]
                                                                                                                                                           s_{\gamma}\,\widetilde{\mu}\,\,y_{d}^{\,\textrm{ilr}}\,\,\overline{y_{u}}^{\textrm{i2i3}}\,\,y_{u}^{\,\textrm{pi4}}\,\left(-\,c_{\gamma}\,\,\overline{a_{d}}^{\textrm{pr}}\,+\,s_{\gamma}\,\widetilde{\mu}\,\,\overline{y_{d}}^{\textrm{pr}}\right)\,\,\mathsf{LF_{3,1,1,-1}}\!\left[\,\mathsf{m_{\tilde{q}}}^{\,\textrm{p}}\,,\,\,\mathsf{m_{\tilde{d}}}^{\,\textrm{r}}\,,\,\,\widetilde{\mu}\,\right]\,+\,s_{\gamma}\,\widetilde{\mu}\,\,\overline{y_{d}}^{\textrm{pr}}
                                                                                                                                                           \frac{1}{24} \; \mathsf{S}_{\gamma} \; \widetilde{\mu} \; \mathsf{y_d}^{\mathsf{ilr}} \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \; \mathsf{y_u}^{\mathsf{pi4}} \; \left( - \, \mathsf{c}_{\gamma} \; \overline{\mathsf{a_d}}^{\mathsf{pr}} + \, \mathsf{S}_{\gamma} \; \widetilde{\mu} \; \overline{\mathsf{y_d}}^{\mathsf{pr}} \right) \; \mathsf{LF_{2,2,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{p}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{r}} \, \right] \; + \; \mathsf{a_{\tilde{q}}}^{\, \mathsf{pr}} \; \mathsf{LF_{2,2,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{r}} \, \right] \; + \; \mathsf{a_{\tilde{q}}}^{\, \mathsf{pr}} \; \mathsf{LF_{2,2,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{r}} \, \right] \; + \; \mathsf{a_{\tilde{q}}}^{\, \mathsf{pr}} \; \mathsf{LF_{2,2,2,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, \right] \; + \; \mathsf{LF_{2,2,2,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, \right] \; + \; \mathsf{LF_{2,2,2,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, \right] \; + \; \mathsf{LF_{2,2,2,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, \right] \; + \; \mathsf{LF_{2,2,2,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, \right] \; + \; \mathsf{LF_{2,2,2,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, \right] \; + \; \mathsf{LF_{2,2,2,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, \right] \; + \; \mathsf{LF_{2,2,2,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, \right] \; + \; \mathsf{LF_{2,2,2,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, \right] \; + \; \mathsf{LF_{2,2,2,2,1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, \right] \; + \; \mathsf{LF_{2,2,2,2,2}} \left[ \, \mathsf{m_{\tilde{d}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, \right] \; + \; \mathsf{LF_{2,2,2,2}} \left[ \, \mathsf{m_{\tilde{d}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, \right] \; + \; \mathsf{LF_{2,2,2,2}} \left[ \, \mathsf{m_{\tilde{d}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{\, \mathsf{pr}} \, , \; \widetilde{\mathsf{m}_{\tilde{d}}}^{
                                                                                                                                                           \frac{1}{12} \; \mathsf{s}_{\scriptscriptstyle \Upsilon} \, \widetilde{\mu} \, \overline{\mathsf{y}_{\mathsf{d}}}^{\mathsf{12p}} \, \overline{\mathsf{y}_{\mathsf{u}}}^{\mathsf{ri3}} \; \mathsf{y}_{\mathsf{u}}^{\mathsf{ili4}} \; \left( \mathsf{c}_{\scriptscriptstyle \Upsilon} \; \mathsf{a}_{\mathsf{d}}^{\mathsf{rp}} - \mathsf{s}_{\scriptscriptstyle \Upsilon} \, \widetilde{\mu} \; \mathsf{y}_{\mathsf{d}}^{\mathsf{rp}} \right) \; \mathsf{LF}_{\mathsf{2,1,1,9}} \left[ \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\; \mathsf{r}} \, , \; \mathsf{m}_{\tilde{\mathsf{d}}}^{\; \mathsf{p}} \, , \; \widetilde{\mu} \, \right] \; + \; \mathsf{c}_{\mathsf{u}} \; \mathsf{v}_{\mathsf{d}}^{\mathsf{rp}} + \mathsf{v}_{\mathsf{d}}^{\mathsf{rp}} + \mathsf{v}_{\mathsf{d}}^{\mathsf{rp}} \, , \; \mathsf{v}_{\mathsf{d}}^{\mathsf{rp}} + \mathsf{v}_{\mathsf{d}}^{\mathsf{rp}} 
                                                                                                                                                                                                            s_{\gamma}\,\widetilde{\mu}\,\overline{y_{d}}^{i2p}\,\overline{y_{u}}^{ri3}\,y_{u}^{i1i4}\,\left(-\,c_{\gamma}\,a_{d}^{\,rp}\,+\,s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\!\left[\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,\,r}\,,\,\,\mathsf{m}_{\tilde{\mathsf{d}}}^{\,\,p}\,,\,\,\widetilde{\mu}\,\right]\,+\,s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\,rp}
                                                                                                                                                           \frac{1}{54} \text{ m}_{1} \text{ s}_{\gamma} \text{ g}_{1}^{2} \overline{\text{y}_{u}}^{\text{i2i3}} \left(-\text{ s}_{\gamma} \text{ a}_{u}^{\text{i1i4}} + \widetilde{\mu} \text{ c}_{\gamma} \text{ y}_{u}^{\text{i1i4}}\right) \text{ LF}_{2,1,1,0} \left[\text{m}_{\tilde{q}}\right]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       [^{\mathsf{i1}},\,\mathsf{m}_{\mathsf{1}},\,\mathsf{m}_{	ilde{\mathsf{u}}}^{\,\,\mathsf{i4}}] +
                                                                                                                                                               \mathsf{m_3} \; \mathsf{s_{\gamma}} \; \mathsf{g_3}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \; \left( - \, \mathsf{s_{\gamma}} \; \mathsf{a_u}^{\mathsf{i1i4}} + \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{y_u}^{\mathsf{i1i4}} \right) \; \mathsf{LF_{2,1,1,0}} \left[ \, \mathsf{m_{\tilde{q}}} \right]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   [^{	ext{i1}},\,\mathsf{m}_3,\,\mathsf{m}_{	ilde{\mathsf{u}}}^{\,	ext{i4}}] +
                                                                                                                                                       \frac{\tilde{z}}{a} \; m_3 \; s_{\gamma} \; g_3^2 \; \overline{y_u}^{i2i3} \; \left( s_{\gamma} \; a_u^{\; i1i4} - \widetilde{\mu} \; c_{\gamma} \; y_u^{\; i1i4} \right) \; LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\; i1}, \; m_3, \; m_{\tilde{u}}^{\; i4} \right] \; + \\ \frac{\tilde{z}}{a} \; m_3 \; s_{\gamma} \; g_3^2 \; \overline{y_u}^{i2i3} \; \left( s_{\gamma} \; a_u^{\; i1i4} - \widetilde{\mu} \; c_{\gamma} \; y_u^{\; i1i4} \right) \; LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\; i1}, \; m_3, \; m_{\tilde{u}}^{\; i4} \right] \; + \\ \frac{\tilde{z}}{a} \; m_3 \; s_{\gamma} \; g_3^2 \; \overline{y_u}^{i2i3} \; \left( s_{\gamma} \; a_u^{\; i1i4} - \widetilde{\mu} \; c_{\gamma} \; y_u^{\; i1i4} \right) \; LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\; i1}, \; m_3, \; m_{\tilde{u}}^{\; i4} \right] \; + \\ \frac{\tilde{z}}{a} \; m_3 \; s_{\gamma} \; g_3^2 \; \overline{y_u}^{\; i2i3} \; \left( s_{\gamma} \; a_u^{\; i1i4} - \widetilde{\mu} \; c_{\gamma} \; y_u^{\; i1i4} \right) \; LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\; i1}, \; m_3, \; m_{\tilde{u}}^{\; i4} \right] \; + \\ \frac{\tilde{z}}{a} \; m_3 \; s_{\gamma} \; g_3^2 \; \overline{y_u}^{\; i2i3} \; \left( s_{\gamma} \; a_u^{\; i1i4} - \widetilde{\mu} \; c_{\gamma} \; y_u^{\; i1i4} \right) \; LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\; i1}, \; m_3, \; m_{\tilde{u}}^{\; i4} \right] \; + \\ \frac{\tilde{z}}{a} \; m_3 \; s_{\gamma} \; g_3^2 \; \overline{y_u}^{\; i2i3} \; \left( s_{\gamma} \; a_u^{\; i1i4} - \widetilde{\mu} \; c_{\gamma} \; y_u^{\; i1i4} \right) \; LF_{3,1,1,1,-1} \left[ m_{\tilde{q}}^{\; i1}, \; m_3, \; m_{\tilde{u}}^{\; i1} \right] \; + \\ \frac{\tilde{z}}{a} \; m_3 \; s_{\gamma} \; g_3^2 \; \overline{y_u}^{\; i2i3} \; \left( s_{\gamma} \; a_u^{\; i1i4} - \widetilde{\mu} \; c_{\gamma} \; y_u^{\; i1i4} \right) \; LF_{3,1,1,1,-1} \left[ m_{\tilde{q}} \; a_u^{\; i1i4} - \widetilde{\mu} \; c_{\gamma} \; y_u^{\; i1i4} \right] \; + \\ \frac{\tilde{z}}{a} \; m_3 \; s_{\gamma} \; g_3^2 \; \overline{y_u}^{\; i1i4} \; \overline
                                                                                                                                                                                                            \left[ \; \mathsf{m_1} \; \mathsf{s_{\scriptscriptstyle Y}} \; \mathsf{g_1}^2 \; \mathsf{y_u}^{\mathsf{ili4}} \; \left( - \, \mathsf{s_{\scriptscriptstyle Y}} \; \overline{\mathsf{a_u}}^{\mathsf{i2i3}} + \widetilde{\mu} \; \mathsf{c_{\scriptscriptstyle Y}} \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \right) \; \mathsf{LF_{2,1,1,0}} \left[ \, \mathsf{m_{\tilde{q}}}^{\mathsf{i2}} \; , \; \mathsf{m_1} \; , \; \mathsf{m_{\tilde{u}}}^{\mathsf{i3}} \, \right] \; + \; \widetilde{\mathsf{m_1}}^{\mathsf{i3}} \; \right] \; + \; \widetilde{\mathsf{m_2}}^{\mathsf{i3}} \; + \; \widetilde{\mathsf{
                                                                                                                                                                                                            \mathsf{m_3} \; \mathsf{s_{\gamma}} \; \mathsf{g_3}^2 \; \mathsf{y_u}^{\mathsf{ili4}} \; \left( - \, \mathsf{s_{\gamma}} \; \overline{\mathsf{a_u}}^{\mathsf{i2i3}} + \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \right) \; \mathsf{LF_{2,1,1,0}} \left[ \, \mathsf{m_{\tilde{q}}} \right]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   [^{i2}, m_3, m_{\tilde{u}}^{i3}] +
                                                                                                                                                                                            \mathsf{m_3}\;\mathsf{s_{\gamma}}\;\mathsf{g_3}^2\;\mathsf{y_u}^{\mathsf{ili4}}\;\left(\mathsf{s_{\gamma}}\;\overline{\mathsf{a_u}}^{\mathsf{i2i3}}-\widetilde{\mu}\;\mathsf{c_{\gamma}}\;\overline{\mathsf{y_u}}^{\mathsf{i2i3}}\right)\;\mathsf{LF_{3,1,1,-1}}\!\left[\mathsf{m_{\tilde{q}}}^{\mathsf{i2i3}}\right]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  [i^2, \mathsf{m}_3, \mathsf{m}_{	ilde{\mathsf{u}}}^{\mathsf{i}3}] +
                                                                                                                                                                         \stackrel{\text{3.5}}{=_4} \, \mathsf{m_1} \, \mathsf{s_{\scriptscriptstyle Y}} \, \mathsf{g_{\scriptscriptstyle 1}}^2 \, \mathsf{y_u}^{\mathsf{ili4}} \, \left( -\, \mathsf{s_{\scriptscriptstyle Y}} \, \overline{\mathsf{a_u}}^{\mathsf{i2i3}} + \widetilde{\mu} \, \mathsf{c_{\scriptscriptstyle Y}} \, \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \right) \, \mathsf{LF_{2,1,1,0}} \big[ \, \mathsf{m_{\scriptscriptstyle \tilde{u}}}^{\mathsf{i3}} \, , \, \, \mathsf{m_1} \, , \, \, \mathsf{m_{\scriptscriptstyle \tilde{q}}}^{\mathsf{i2}} \big] \, + \, \widetilde{\mathsf{m_{\scriptscriptstyle \tilde{q}}}}^{\mathsf{i2}} \, , \, \, \mathsf{m_1}^{\mathsf{i3}} \, , \, \, \mathsf{m_2}^{\mathsf{i3}} \, , \, \, \mathsf{m_3}^{\mathsf{i3}} \, , \, \, \mathsf{m_3}^{\mathsf{i4}} \, , \, \, \mathsf{m_3}
                                                                                                                                                                        \mathsf{m_{3}} \, \mathsf{s_{\gamma}} \, \mathsf{g_{3}}^{2} \, \mathsf{y_{u}}^{\mathsf{ili4}} \, \left( - \, \mathsf{s_{\gamma}} \, \overline{\mathsf{a_{u}}}^{\mathsf{i2i3}} + \widetilde{\mu} \, \mathsf{c_{\gamma}} \, \overline{\mathsf{y_{u}}}^{\mathsf{i2i3}} \right) \, \mathsf{LF_{2,1,1,0}} \big[ \, \mathsf{m_{\tilde{u}}}^{\mathsf{i3}}, \, \mathsf{m_{3}}, \, \mathsf{m_{\tilde{q}}}^{\mathsf{i2}} \big] \, + \, \widetilde{\mathsf{m_{3}}}^{\mathsf{i2}} \, \mathsf{m_{3}}^{\mathsf{i2}} + \, \widetilde{\mathsf{m_{3}}}^{\mathsf{i2}} \, \mathsf{m_{3}}^{\mathsf{i3}} \, \mathsf
                                                                                                                                                       \frac{\tilde{z}_{a}^{2}}{a}\,\mathsf{m}_{3}\,\mathsf{s}_{\gamma}\,\mathsf{g}_{3}^{\,2}\,\mathsf{y}_{u}^{\,i\,1i\,4}\,\left(\mathsf{s}_{\gamma}\,\overline{\mathsf{a}_{u}}^{\,i\,2i\,3}-\widetilde{\mu}\;\mathsf{c}_{\gamma}\,\overline{\mathsf{y}_{u}}^{\,i\,2i\,3}\right)\,\mathsf{LF}_{3,1,1,-1}\!\left[\mathsf{m}_{\tilde{u}}^{\,i\,3},\,\mathsf{m}_{3},\,\mathsf{m}_{\tilde{q}}^{\,i\,2}\right]\,+
                                                                                                                                                                                                        \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right) \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right] \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right] \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\gamma} y_{u}^{i1i4} \right] \right] + \left[ \left( -s_{\gamma} a_{u}^{i1i4} + \widetilde{\mu} c_{\alpha} y_{u}^{i1i4} \right] + \left[ \left( -s_{\gamma} a_{
                                                                                                                                                           \frac{1}{54} \; \mathsf{m_1} \; \mathsf{s_{Y}} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \; \left( \mathsf{s_{Y}} \; \mathsf{a_u}^{\mathsf{i1i4}} - \widetilde{\mu} \; \mathsf{c_{Y}} \; \mathsf{y_u}^{\mathsf{i1i4}} \right) \; \mathsf{LF_{3,1,1,-1}} \big[ \, \mathsf{m_{\tilde{u}}}^{\mathsf{i4}}, \; \mathsf{m_1}, \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \big] \; + \\
                                                                                                                                                           \frac{2}{9} \; m_{3} \; s_{\gamma} \; g_{3}^{\; 2} \; \overline{y_{u}}^{\text{i2i3}} \; \left( - \, s_{\gamma} \; a_{u}^{\; \text{i1i4}} + \, \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \right) \; \mathsf{LF}_{\text{2,1,1,0}} \left[ \, \mathsf{m_{\tilde{u}}}^{\, \text{i4}} \, , \; \mathsf{m_{3}} \, , \; \mathsf{m_{\tilde{q}}}^{\, \text{i1}} \, \right] \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \right) \; \mathsf{LF}_{\text{2,1,1,0}} \left[ \, \mathsf{m_{\tilde{u}}}^{\, \text{i4}} \, , \; \mathsf{m_{3}} \, , \; \mathsf{m_{\tilde{q}}}^{\, \text{i1}} \, \right] \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \right] \; \mathsf{LF}_{\text{2,1,1,0}} \left[ \, \mathsf{m_{\tilde{u}}}^{\, \text{i4}} \, , \; \mathsf{m_{3}} \, , \; \mathsf{m_{\tilde{q}}}^{\, \text{i1}} \, \right] \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \right] \; \mathsf{LF}_{\text{2,1,1,0}} \left[ \, \mathsf{m_{\tilde{u}}}^{\, \text{i4}} \, , \; \mathsf{m_{3}} \, , \; \mathsf{m_{\tilde{q}}}^{\, \text{i1}} \, \right] \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \right] \; \mathsf{LF}_{\text{2,1,1,0}} \left[ \, \mathsf{m_{\tilde{u}}}^{\, \text{i4}} \, , \; \mathsf{m_{3}} \, , \; \mathsf{m_{\tilde{q}}}^{\, \text{i1}} \, \right] \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \, \right] \; \mathsf{LF}_{\text{2,1,1,0}} \left[ \, \mathsf{m_{\tilde{u}}}^{\, \text{i4}} \, , \; \mathsf{m_{3}} \, , \; \mathsf{m_{\tilde{q}}}^{\, \text{i1}} \, \right] \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \, \right] \; \mathsf{LF}_{\text{2,1,1,1,0}} \left[ \, \mathsf{m_{\tilde{u}}}^{\, \text{i1}} \, , \; \mathsf{m_{3}} \, , \; \mathsf{m_{\tilde{q}}}^{\, \text{i1i4}} \, \right] \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \text{i1i4}} \; +
                                                                                                                                                                                            \mathsf{m_3} \; \mathsf{s_{Y}} \; \mathsf{g_3}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \; \left(\mathsf{s_{Y}} \; \mathsf{a_u}^{\mathsf{i1i4}} - \widetilde{\mu} \; \mathsf{c_{Y}} \; \mathsf{y_u}^{\mathsf{i1i4}}\right) \; \mathsf{LF_{3,1,1,-1}} \left[\mathsf{m_{\tilde{u}}}^{\mathsf{i4}}, \; \mathsf{m_3}, \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}}\right] - \widetilde{\mu} \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} + \widetilde{\mu} \; \mathsf{m_{\tilde{q}}
                                                                                                                                                                                            \tilde{\mu}^2\,\overline{y_d}^{i2p}\,y_d{}^{i1p}\,\overline{y_u}^{ri3}\,y_u{}^{ri4}\,\mathsf{LF}_{2,1,1,0}\big[\tilde{\mu},\,\mathfrak{m}_{\tilde{d}}{}^p,\,\mathfrak{m}_{\tilde{q}}{}^r\big]\,-\,
                                                                                                                                                           \frac{1}{4}\;\overline{y_u}^{\text{ri3}}\;\overline{y_u}^{\text{i2p}}\;y_u^{\text{ri4}}\;y_u^{\text{i1p}}\;\mathsf{LF}_{2,1,1,-1}\big[\,\widetilde{\boldsymbol{\mu}}\,,\;\boldsymbol{m_{\tilde{q}}}^{\text{r}}\,,\;\boldsymbol{m_{\tilde{u}}}^{\text{p}}\big]\;-
                                                                                                                                                       \tfrac{1}{54} \; g_1{}^2 \; \overline{y_u}^{\text{i2i3}} \; y_u{}^{\text{i1i4}} \; LF_{1,1,1,1,-1} \big[ \, m_1 \, , \, m_{\tilde{q}}{}^{\text{i1}} \, , \, m_{\tilde{u}}{}^{\text{i3}} \\
                                                                                                                                                       \tfrac{1}{216}\;g_1{}^2\;\overline{y_u}^{i2i3}\;y_u{}^{i1i4}\;LF_{1,1,1,1,-1}\big[\,m_1\,,\,m_{\bar{q}}{}^{i2}\,,\,m_{\bar{q}}
                                                                                                                                                           \frac{1}{54} \; g_1{}^2 \; \overline{y_u}{}^{i2i3} \; y_u{}^{i1i4} \; \mathsf{LF}_{1,1,1,1,-1} \big[ \, \mathsf{m}_1 \, , \, \, \mathsf{m}_{\bar{\mathsf{q}}}{}^{i2} \, , \, \, \mathsf{m}_{\bar{\mathsf{u}}}{}^{i4} \, , \, \, \widetilde{\mu} \, \big] \; + \\
                                                                                                                                                           \frac{1}{8}~g_{2}^{2}~\overline{y_{u}}^{i2i3}~y_{u}^{i1i4}~LF_{1,1,1,1,-1}\big[\,m_{2}\,,\,m_{\tilde{q}}^{-i2}\,,\,m_{\tilde{q}}
                                                                                                                                                                                            \mathsf{g_3}^2\,\overline{\mathsf{y_u}}^{\mathsf{i}\,\mathsf{2}\,\mathsf{i}\,\mathsf{3}}\,\mathsf{y_u}^{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{4}}\,\mathsf{LF_{1,1,1,1,-1}}\big[\mathsf{m_3}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i}\,\mathsf{1}}\,,\,\mathsf{m_{\tilde{u}}}^{\mathsf{i}\,\mathsf{3}}\,,\,\tilde{\mu}\big]\,\,+\,\,
                                                                                                                                                                                                \mathbf{g_3}^2\,\overline{\mathbf{y_u}}^{\mathbf{i}\,\mathbf{2}\,\mathbf{i}\,\mathbf{3}}\,\,\mathbf{y_u}^{\mathbf{i}\,\mathbf{1}\,\mathbf{i}\,\mathbf{4}}\,\,\mathsf{LF_{1,1,1,1,-1}}\big[\,\mathbf{m_3}\,,\,\,\mathbf{m_{\tilde{q}}}^{\,\,\mathbf{i}\,\mathbf{2}}\,,\,\,\mathbf{m_{\tilde{q}}}^{\,\,\mathbf{i}\,\mathbf{1}}\,,\,\,\tilde{\boldsymbol{\mu}}\,\big]\,\,.
                                                                                                                                                                                            g_3^2 \, \overline{y_u}^{i2i3} \, y_u^{i1i4} \, LF_{1,1,1,1,-1} [m_3, m_{\tilde{q}}^{i2}, m_{\tilde{u}}^{i4}, \tilde{\mu}] +
                                                                                                                                                                                            g_3^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{1,1,1,1,-1}[m_3, m_{\tilde{u}}^{i4}, m_{\tilde{u}}^{i3}, \tilde{\mu}])
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