```
 \stackrel{(3)}{\text{i1}} \stackrel{\text{i1}}{\text{-i2}} - \rightarrow \frac{1}{16\,\pi^2} \ \left( -\frac{1}{144} \ \frac{1}{m_{\text{o}}^2} \ \left( s_{\text{y}}^2 \ \overline{y_{\text{d}}}^{\text{i2p}} \ \left( g_2^2 \ y_{\text{d}}^{\text{i1p}} + 12 \ c_{\text{y}}^2 \ y_{\text{d}}^{\text{rp}} \ \left( \overline{y_{\text{d}}}^{\text{rs}} \ y_{\text{d}}^{\text{i1s}} + 3 \ \overline{y_{\text{u}}}^{\text{rs}} \ y_{\text{u}}^{\text{i1s}} \right) \right) + \frac{1}{2} \left( s_{\text{v}}^2 \ \overline{y_{\text{d}}}^{\text{i2p}} \ \left( s_{\text{v}}^2 \ \overline{y_{\text{d}}}^{\text{i2p}} \right) \right) + \frac{1}{2} \left( s_{\text{v}}^2 \ \overline{y_{\text{d}}}^{\text{i2p}} \right) \left( s_{\text{v}}^2 \ \overline{y_{\text{d}}}^{\text{i2p}} \right) \right) + \frac{1}{2} \left( s_{\text{v}}^2 \ \overline{y_{\text{d}}}^{\text{i2p}} \right) \right) + \frac{1}{2} \left( s_{\text{v}}^2 \ \overline{y_{\text{d}}}^{\text{i2p}} \right) \right) + \frac{1}{2} \left( s_{\text{v}}^2 \ \overline{y_{\text{d}}}^{\text{i2p}} \right) \left( s_{\text{v}}^2 \
C_{\mathsf{Hq}}^{\mathsf{Tq}}
                                                                                                                                                                                                                                                                                             c_{_{Y}}^{2} \, \left(36 \, s_{_{Y}}^{2} \, \overline{y_{d}}^{\text{pr}} \, y_{d}^{\, \text{ilr}} \, \overline{y_{u}}^{\text{i2s}} \, y_{u}^{\, \text{ps}} + \overline{y_{u}}^{\text{i2p}} \, \left(g_{2}^{2} \, y_{u}^{\, \text{ilp}} + 12 \, s_{_{Y}}^{2} \, \overline{y_{u}}^{\text{rs}} \, y_{u}^{\, \text{rp}} \, y_{u}^{\, \text{ils}} \right) \right) \, \right) \, + \, \left( \left( \frac{1}{2} \, y_{u}^{\, \text{ilp}} + \frac{1}{2} \, z_{u}^{\, \text{ilp}} + \frac{1}{2} \, z_{u}^{\, \text{ilp}} \, y_{u}^{\, \text{ilp}} \right) \, \right) \, + \, \left( \frac{1}{2} \, z_{u}^{\, \text{ilp}} + \frac{1}{2} \, z_{u}^{\, \text{ilp}} \, y_{u}^{\, \text{ilp}} + \frac{1}{2} \, z_{u}^{\, \text{ilp}} \, y_{u}^{\, \text{ilp}} \right) \, \right) \, + \, \left( \frac{1}{2} \, z_{u}^{\, \text{ilp}} + \frac{1}{2} \, z_{u}^{\, \text{ilp}} \, y_{u}^{\, \text{ilp}} \, y_{u}^{\, \text{ilp}} \right) \, \right) \, + \, \left( \frac{1}{2} \, z_{u}^{\, \text{ilp}} + \frac{1}{2} \, z_{u}^{\, \text{ilp}} \, y_{u}^{\, \text{ilp}} \, y_{u}^{\, \text{ilp}} \, y_{u}^{\, \text{ilp}} \right) \, \right) \, + \, \left( \frac{1}{2} \, z_{u}^{\, \text{ilp}} + \frac{1}{2} \, z_{u}^{\, \text{ilp}} \, y_{u}^{\, \text{ilp}} \, y_{u}
                                                                                                                                                     \frac{1}{9} \ g_2^{\ 4} \ \mathsf{LF}_{3,0} \ [\mathsf{m}_2] \ \delta_{\mathtt{i}\mathtt{1}\mathtt{i}\mathtt{2}} + \frac{1}{6} \ g_2^{\ 4} \ \mathsf{LF}_{4,-1} \ [\mathsf{m}_2] \ \delta_{\mathtt{i}\mathtt{1}\mathtt{i}\mathtt{2}} - \frac{8}{45} \ g_2^{\ 4} \ \mathsf{LF}_{5,-2} \ [\mathsf{m}_2] \ \delta_{\mathtt{i}\mathtt{1}\mathtt{i}\mathtt{2}} + \frac{1}{6} \ g_2^{\ 4} \ \mathsf{LF}_{5,-2} \ [\mathsf{m}_2] \ \delta_{\mathtt{i}\mathtt{1}\mathtt{i}\mathtt{2}} + \frac{1}{6} \ g_2^{\ 4} \ \mathsf{LF}_{5,-2} \ [\mathsf{m}_2] \ \delta_{\mathtt{i}\mathtt{1}\mathtt{i}\mathtt{2}} + \frac{1}{6} \ g_2^{\ 4} \ \mathsf{LF}_{5,-2} \ [\mathsf{m}_2] \ \delta_{\mathtt{i}\mathtt{1}\mathtt{1}\mathtt{2}} + \frac{1}{6} \ g_2^{\ 4} \ \mathsf{LF}_{5,-2} \ [\mathsf{m}_2] \ \delta_{\mathtt{i}\mathtt{1}\mathtt{1}\mathtt{2}} + \frac{1}{6} \ g_2^{\ 4} \ \mathsf{LF}_{5,-2} \ [\mathsf{m}_2] \ \delta_{\mathtt{i}\mathtt{1}\mathtt{1}\mathtt{2}} + \frac{1}{6} \ \mathsf{LF}_{5,-2} \ [\mathsf{m}_2] \ \delta_{\mathtt{i}\mathtt{1}\mathtt{1}\mathtt{2}} + \frac{1}{6} \ \mathsf{LF}_{5,-2} \ [\mathsf{m}_2] \ \delta_{\mathtt{i}\mathtt{1}\mathtt{1}\mathtt{2}} + \frac{1}{6} \ \mathsf{LF}_{5,-2} \ [\mathsf{m}_2] \ \delta_{\mathtt{i}\mathtt{1}\mathtt{2}} + \frac{1}{6} \ \mathsf{LF}_{5,-2} \ [\mathsf{m}_2] \ \delta_{\mathtt{i}\mathtt{2}} + \frac{1}{6} \ \mathsf{LF}_{5,-2} \ \mathsf{LF}_{5,-2}
                                                                                                                                                     \frac{2}{45} \, \sum_{p} \, g_{2}{}^{4} \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{1}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \mathsf{LF}_{3,0} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, - \, \frac{5}{16} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{4,-1} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{4,-1} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{4} \, \, \mathsf{LF}_{5,-2} \big[ \, \mathsf{m}_{\bar{q}}{}^{p} \big] \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{p} \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{p} \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{p} \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{p} \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{p} \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{p} \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{p} \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} \, g_{2}{}^{p} \, \, \delta_{\mathtt{ili2}} \, + \, \frac{1}{6} \, \sum_{p} 
                                                                                                                                                     \frac{2}{15} \sum_{p} g_{2}^{4} \mathsf{LF}_{5,-2} \left[ \mathsf{m}_{\tilde{q}}^{\ p} \right] \, \delta_{1112} - \frac{1}{24} \, g_{2}^{2} \, \left( \mathsf{s}_{\gamma}^{\ 2} \, \overline{\mathsf{y}_{\mathsf{d}}}^{12p} \, \mathsf{y}_{\mathsf{d}}^{\ 11p} + \mathsf{c}_{\gamma}^{\ 2} \, \overline{\mathsf{y}_{\mathsf{u}}}^{12p} \, \mathsf{y}_{\mathsf{u}}^{\ 11p} \right) \, \mathsf{LF}_{2,1} [\, \mathsf{m}_{\scriptscriptstyle{\bar{\Phi}}} \,] \, + \, \mathsf{c}_{\gamma}^{\ 2} \, \overline{\mathsf{y}_{\mathsf{u}}}^{12p} \, \mathsf{y}_{\mathsf{u}}^{\ 12p} \, \mathsf{y}_{\mathsf{u}}^{\ 12p} \, \mathsf{v}_{\mathsf{u}}^{\ 12p} \,
                                                                                                                                                 \frac{1}{72}~g_{2}^{2}~\left(3~s_{\gamma}^{~2}~\overline{y_{d}}^{i2p}~y_{d}^{~i1p}~+~3~c_{\gamma}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~i1p}~+~4~g_{2}^{~2}~\delta_{i1i2}\right)~LF_{3,\theta}\left[m_{_{\oplus}}\right]~-~\frac{5}{48}~g_{2}^{~4}~LF_{4,-1}\left[m_{_{\oplus}}\right]~\delta_{i1i2}~+~3~c_{\gamma}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~i1p}~+~4~g_{2}^{~2}~\delta_{i1i2}\right)~LF_{3,\theta}\left[m_{_{\oplus}}\right]~-~\frac{5}{48}~g_{2}^{~4}~LF_{4,-1}\left[m_{_{\oplus}}\right]~\delta_{i1i2}~+~3~c_{\gamma}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~i1p}~+~4~g_{2}^{~2}~\delta_{i1i2}\right)~LF_{3,\theta}\left[m_{_{\oplus}}\right]~-~\frac{5}{48}~g_{2}^{~4}~LF_{4,-1}\left[m_{_{\oplus}}\right]~\delta_{i1i2}~+~3~c_{\gamma}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{~2}~\overline{y_{u}}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}~y_{u}^{i2p}
                                                                                                                                                     \frac{2}{45} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\mathsf{m}_{\scriptscriptstyle{\oplus}}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{18} \ g_2{}^4 \ \mathsf{LF}_{3,0} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{4,-1} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} - \frac{4}{45} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,-2} \ [\tilde{\mu}] \ \delta_{\mathsf{1}\mathsf{2}} + \frac{1}{12} \ g_2{}^4 \ \mathsf{LF}_{5,
                                                                                                                                                 \frac{1}{18} \ g_1{}^2 \ c_\gamma{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{2,1,0} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ - \ \frac{1}{9} \ g_1{}^2 \ c_\gamma{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ g_1{}^2 \ c_\gamma{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ g_1{}^2 \ c_\gamma{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i2p} \ y_d{}^{i2p} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ g_1{}^2 \ c_\gamma{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i2p} \ y_d{}^{i2p} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1,-1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1} \left[ \, m_1 \, , \, m_d^{-p} \, \right] \ + \ \frac{1}{9} \ \mathsf{LF}_{3,1} \left[ \, m_1 \, , \, m_
                                                                                                                                                 \frac{1}{18}\;g_{1}^{\;2}\;c_{\gamma}^{\;2}\;\overline{y_{d}}^{i2p}\;y_{d}^{\;i1p}\;\mathsf{LF_{4,1,-2}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{d}^{\;p}}\big]\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{1}^{\;2}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{1}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{2}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{2}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{2}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{2}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{2}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{2}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{2}^{\;i2}}\big]\;\delta_{i1i2}\;+\;\frac{1}{432}\;g_{2}^{\;2}\;\mathsf{LF_{2,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{2}^{\;i2
                                                                                                                                                 \frac{1}{432} \; g_1^2 \; g_2^2 \; \mathsf{LF_{4,1,-2}} \big[ \, \mathsf{m_1} \text{, } \, \mathsf{m_{\tilde{q}}^{-i\,2}} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} + \frac{2}{9} \; g_1^2 \; \mathsf{s_{\chi}^2} \; \overline{y_u^{\dot{1}2p}} \; \mathsf{y_u^{\dot{1}1p}} \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_1} \text{, } \, \mathsf{m_{\tilde{u}}^{\,p}} \, \big] \; - \frac{1}{3} \; \mathsf{m_{\tilde{q}}^{\,p}} \; \mathsf{m_{\tilde{q}}^{\,p}} \, \mathsf{m_{\tilde{q}}^{
                                                                                                                                                 \frac{1}{9}\,g_{1}^{\,2}\,s_{\gamma}^{\,2}\,\overline{y_{u}}^{i\,2p}\,y_{u}^{\,i\,1p}\,LF_{3,1,-1}\!\left[\,m_{1}\,,\,m_{\bar{u}}^{\,\,p}\,\right]\,+\,\frac{2}{9}\,g_{1}^{\,2}\,s_{\gamma}^{\,2}\,\overline{y_{u}}^{i\,2p}\,y_{u}^{\,i\,1p}\,LF_{4,1,-2}\!\left[\,m_{1}\,,\,m_{\bar{u}}^{\,\,p}\,\right]\,-\,\frac{2}{9}\,g_{1}^{\,2}\,s_{\gamma}^{\,2}\,\overline{y_{u}}^{i\,2p}\,y_{u}^{\,i\,1p}\,LF_{4,1,-2}\!\left[\,m_{1}\,,\,m_{\bar{u}}^{\,\,p}\,\right]\,-\,\frac{2}{9}\,g_{1}^{\,2}\,s_{\gamma}^{\,2}\,\overline{y_{u}}^{i\,2p}\,y_{u}^{\,i\,1p}\,LF_{4,1,-2}\!\left[\,m_{1}\,,\,m_{\bar{u}}^{\,\,p}\,\right]\,-\,\frac{2}{9}\,g_{1}^{\,2}\,s_{\gamma}^{\,2}\,\overline{y_{u}}^{i\,2p}\,y_{u}^{\,i\,1p}\,LF_{4,1,-2}\!\left[\,m_{1}\,,\,m_{\bar{u}}^{\,\,p}\,\right]\,-\,\frac{2}{9}\,g_{1}^{\,2}\,s_{\gamma}^{\,2}\,\overline{y_{u}}^{i\,2p}\,y_{u}^{\,i\,1p}\,LF_{4,1,-2}\!\left[\,m_{1}\,,\,m_{\bar{u}}^{\,\,p}\,\right]\,-\,\frac{2}{9}\,g_{1}^{\,2}\,s_{\gamma}^{\,2}\,\overline{y_{u}}^{\,i\,2p}\,y_{u}^{\,i\,1p}\,LF_{4,1,-2}\!\left[\,m_{1}\,,\,m_{\bar{u}}^{\,\,p}\,\right]\,-\,\frac{2}{9}\,g_{1}^{\,2}\,s_{\gamma}^{\,2}\,\overline{y_{u}}^{\,i\,2p}\,y_{u}^{\,i\,1p}\,LF_{4,1,-2}\!\left[\,m_{1}\,,\,m_{\bar{u}}^{\,\,p}\,\right]\,-\,\frac{2}{9}\,g_{1}^{\,2}\,s_{\gamma}^{\,2}\,\overline{y_{u}}^{\,i\,2p}\,y_{u}^{\,i\,1p}\,LF_{4,1,-2}\!\left[\,m_{1}\,,\,m_{\bar{u}}^{\,\,p}\,\right]\,-\,\frac{2}{9}\,g_{1}^{\,2}\,s_{\gamma}^{\,2}\,\overline{y_{u}}^{\,i\,2p}\,y_{u}^{\,i\,1p}\,LF_{4,1,-2}\!\left[\,m_{1}\,,\,m_{\bar{u}}^{\,\,p}\,\right]\,-\,\frac{2}{9}\,g_{1}^{\,2}\,s_{\gamma}^{\,2}\,\overline{y_{u}}^{\,i\,2p}\,y_{u}^{\,i\,2p}\,y_{u}^{\,i\,2p}\,y_{u}^{\,i\,2p}\,y_{u}^{\,i\,2p}\,y_{u}^{\,i\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}^{\,2p}\,y_{u}
                                                                                                                                                 \frac{1}{48}\;g_{2}{}^{4}\;\mathsf{LF}_{2,1,0}\big[\,\mathsf{m}_{2}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,\big]\;\,\delta_{\dot{1}\dot{1}\dot{1}2}\,-\,\frac{1}{48}\;g_{2}{}^{4}\;\mathsf{LF}_{2,2,-1}\big[\,\mathsf{m}_{2}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,\big]\;\,\delta_{\dot{1}\dot{1}\dot{2}}\,-\,\frac{5}{24}\;g_{2}{}^{4}\;\mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{2}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,\big]\;\,\delta_{\dot{1}\dot{1}\dot{2}}\,+\,\frac{1}{24}\;g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{\dot{1}2}\,g_{2}{}^{
                                                                                                                                                 \frac{1}{16}~g_2^{~4}~\mathsf{LF_{4,1,-2}}\big[\mathsf{m_2}\,,\,\mathsf{m_{\tilde{q}}}^{-12}\big]~\delta_{\mathsf{11i2}}\,-\,\frac{1}{3}~g_2^{~4}~\mathsf{LF_{2,1,0}}\,[\,\mathsf{m_2}\,,\,\tilde{\mu}\,]~\delta_{\mathsf{11i2}}\,-\,\frac{1}{3}~g_2^{~4}~\mathsf{LF_{2,2,-1}}\,[\,\mathsf{m_2}\,,\,\tilde{\mu}\,]~\delta_{\mathsf{11i2}}\,-\,\frac{1}{3}\,g_2^{~4}\,\mathsf{LF_{2,2,-1}}\,[\,\mathsf{m_2}\,,\,\tilde{\mu}\,]
                                                                                                                                                 \frac{2}{3}\;\mathsf{m}_2\;\mathsf{s}_{\curlyvee}\,\tilde{\mu}\;\mathsf{c}_{\curlyvee}\,\mathsf{g_2}^4\;\mathsf{LF}_{2,2,0}\,[\,\mathsf{m}_2\,,\,\tilde{\mu}\,]\;\;\delta_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{3,1,-1}\,[\,\mathsf{m}_2\,,\,\tilde{\mu}\,]\;\;\delta_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{3,1,-1}\,[\,\mathsf{m}_2\,,\,\tilde{\mu}\,]\;\;\delta_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{3,1,-1}\,[\,\mathsf{m}_2\,,\,\tilde{\mu}\,]\;\;\delta_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{3,1,-1}\,[\,\mathsf{m}_2\,,\,\tilde{\mu}\,]\;\;\delta_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{3,1,-1}\,[\,\mathsf{m}_2\,,\,\tilde{\mu}\,]\;\;\delta_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{3,1,-1}\,[\,\mathsf{m}_2\,,\,\tilde{\mu}\,]\;\;\delta_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{LF}_{\mathsf{1112}}\,+\,\frac{1}{6}\;\mathsf{g_2}^4\;\mathsf{L
                                                                                                                                                     \frac{1}{6} \; {\rm g_2}^4 \; {\rm LF_{3,2,-2}} \left[ \, {\rm m_2} \, , \; \widetilde{\mu} \, \right] \; \delta_{\rm ili2} + \frac{1}{3} \; {\rm m_2} \; {\rm s_{\gamma}} \; \widetilde{\mu} \; {\rm c_{\gamma}} \; {\rm g_2}^4 \; {\rm LF_{3,2,-1}} \left[ \, {\rm m_2} \, , \; \widetilde{\mu} \, \right] \; \delta_{\rm ili2} + \frac{1}{3} \; {\rm m_2} \; {\rm s_{\gamma}} \; \widetilde{\mu} \; {\rm c_{\gamma}} \; {\rm g_2}^4 \; {\rm LF_{3,2,-1}} \left[ \, {\rm m_2} \, , \; \widetilde{\mu} \, \right] \; \delta_{\rm ili2} + \frac{1}{3} \; {\rm m_2} \; {\rm s_{\gamma}} \; \widetilde{\mu} \; {\rm c_{\gamma}} \; {\rm g_2}^4 \; {\rm LF_{3,2,-1}} \left[ \, {\rm m_2} \, , \; \widetilde{\mu} \, \right] \; \delta_{\rm ili2} + \frac{1}{3} \; {\rm m_2} \; {\rm s_{\gamma}} \; \widetilde{\mu} \; {\rm c_{\gamma}} \; {\rm g_2}^4 \; {\rm LF_{3,2,-1}} \left[ \, {\rm m_2} \, , \; \widetilde{\mu} \, \right] \; \delta_{\rm ili2} + \frac{1}{3} \; {\rm m_2} \; {\rm s_{\gamma}} \; \widetilde{\mu} \; {\rm c_{\gamma}} \; {\rm 
                                                                                                                                                                                         g_3{}^2\;c_{\gamma}{}^2\;\overline{y_d}{}^{i\,2p}\;y_d{}^{i\,1p}\;\mathsf{LF}_{2,1,0}\left[\,m_3\,,\;m_{\overset{.}{d}}{}^p\,\right]\,-\,\tfrac{4}{3}\;g_3{}^2\;c_{\gamma}{}^2\;\overline{y_d}{}^{i\,2p}\;y_d{}^{i\,1p}\;\mathsf{LF}_{3,1,-1}\!\left[\,m_3\,,\;m_{\overset{.}{d}}{}^p\,\right]\,+\,\frac{4}{3}\,g_3{}^2\;c_{\gamma}{}^2\;\overline{y_d}{}^{i\,2p}\;y_d{}^{i\,1p}\;\mathsf{LF}_{3,1,-1}\!\left[\,m_3\,,\;m_{\overset{.}{d}}{}^p\,\right]\,+\,\frac{4}{3}\,g_3{}^2\;c_{\gamma}{}^2\;\overline{y_d}{}^{i\,2p}\;y_d{}^{i\,1p}\;\mathsf{LF}_{3,1,-1}\!\left[\,m_3\,,\;m_{\overset{.}{d}}{}^p\,\right]\,+\,\frac{4}{3}\,g_3{}^2\;c_{\gamma}{}^2\;\overline{y_d}{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;\mathsf{LF}_{3,1,-1}\!\left[\,m_3\,,\;m_{\overset{.}{d}}{}^p\,\right]\,+\,\frac{4}{3}\,g_3{}^2\;c_{\gamma}{}^2\;\overline{y_d}{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;\mathsf{LF}_{3,1,-1}\!\left[\,m_3\,,\;m_{\overset{.}{d}}{}^p\,\right]\,+\,\frac{4}{3}\,g_3{}^2\;c_{\gamma}{}^2\;\overline{y_d}{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;\mathsf{LF}_{3,1,-1}\!\left[\,m_3\,,\;m_{\overset{.}{d}}{}^p\,\right]\,+\,\frac{4}{3}\,g_3{}^2\;c_{\gamma}{}^2\;\overline{y_d}{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}\;y_d{}^{i\,2p}
                                                                                                                                                     \frac{2}{3}\; {g_{3}}^{2}\; {c_{\gamma}}^{2}\; \overline{y_{d}}^{i2p}\; {y_{d}}^{i1p}\; \mathsf{LF_{4,1,-2}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{d}}}^{p}\big] \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; {g_{3}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; {g_{2}}^{2}\; \mathsf{LF_{2,1,0}}\big[\mathsf{m_{3}},\; \mathsf{m_{\tilde{q}}}^{i2}\big] \; \delta_{i1i2} \; + \; \frac{1}{9}\; \mathsf{LF_{2,1,0}}\big[\mathsf{
                                                                                                                                                 \tfrac{1}{9} \ g_2{}^2 \ g_3{}^2 \ \mathsf{LF}_{2,2,-1} \big[ \, \mathsf{m}_3 \, , \ \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\dot{1} \, 2} \big] \ \delta_{\dot{1}\dot{1}\dot{1}2} \, - \, \tfrac{2}{9} \ g_2{}^2 \ g_3{}^2 \ \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_3 \, , \ \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\dot{1} \, 2} \big] \ \delta_{\dot{1}\dot{1}\dot{1}2} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}} \, + \, \mathsf{m}_{\dot{1}\dot{
                                                                                                                                                     \frac{1}{9} \; g_2^2 \; g_3^2 \; \mathsf{LF_{4,1,-2}} \big[ \, \mathsf{m_3} \, , \, \, \mathsf{m_{\tilde{q}}}^{\, \, i\, 2} \big] \; \delta_{\, i\, i\, i\, 2} \, + \, \frac{2}{3} \; g_3^2 \; \mathsf{S_{\chi}}^2 \; \overline{\mathsf{y_u}}^{\, i\, 2p} \; \mathsf{y_u}^{\, i\, 1p} \; \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_3} \, , \, \, \mathsf{m_{\tilde{u}}}^{\, p} \, \big] \; - \, \mathcal{O}_{\, i\, 1} \, \mathcal{O}_
                                                                                                                                                                                     g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i2p}\; y_{u}{}^{i1p}\; LF_{3,1,-1}\big[m_{3}\,,\, m_{\tilde{u}}{}^{p}\big] \; + \; \frac{2}{3}\; g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i2p}\; y_{u}{}^{i1p}\; LF_{4,1,-2}\big[m_{3}\,,\, m_{\tilde{u}}{}^{p}\big] \; + \; \frac{2}{3}\; g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i2p}\; y_{u}{}^{i1p}\; LF_{4,1,-2}\big[m_{3}\,,\, m_{\tilde{u}}{}^{p}\big] \; + \; \frac{2}{3}\; g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i2p}\; y_{u}{}^{i1p}\; LF_{4,1,-2}\big[m_{3}\,,\, m_{\tilde{u}}{}^{p}\big] \; + \; \frac{2}{3}\; g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i2p}\; y_{u}{}^{i1p}\; LF_{4,1,-2}\big[m_{3}\,,\, m_{\tilde{u}}{}^{p}\big] \; + \; \frac{2}{3}\; g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i2p}\; y_{u}{}^{i1p}\; LF_{4,1,-2}\big[m_{3}\,,\, m_{\tilde{u}}{}^{p}\big] \; + \; \frac{2}{3}\; g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i2p}\; y_{u}{}^{i1p}\; LF_{4,1,-2}\big[m_{3}\,,\, m_{\tilde{u}}{}^{p}\big] \; + \; \frac{2}{3}\; g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i2p}\; y_{u}{}^{i1p}\; LF_{4,1,-2}\big[m_{3}\,,\, m_{\tilde{u}}{}^{p}\big] \; + \; \frac{2}{3}\; g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i2p}\; y_{u}{}^{i1p}\; LF_{4,1,-2}\big[m_{3}\,,\, m_{\tilde{u}}{}^{p}\big] \; + \; \frac{2}{3}\; g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i1p}\; F_{4,1,-2}\big[m_{3}\,,\, m_{\tilde{u}}{}^{p}\big] \; + \; \frac{2}{3}\; g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i1p}\; F_{4,1,-2}\big[m_{3}\,,\, m_{\tilde{u}}{}^{p}\big] \; + \; \frac{2}{3}\; g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i1p}\; F_{4,1,-2}\big[m_{3}\,,\, m_{\tilde{u}}{}^{p}\big] \; + \; \frac{2}{3}\; g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i1p}\; F_{4,1,-2}\big[m_{3}\,,\, m_{\tilde{u}}{}^{p}\big] \; + \; \frac{2}{3}\; g_{3}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{2}\; \overline{y_{
                                                                                                                                                 \frac{1}{8} \; g_2^{\; 2} \; \left( c_{_{Y}} \; \overline{a_e}^{pr} - s_{_{Y}} \, \widetilde{\mu} \; \overline{y_e}^{pr} \right) \; \left( c_{_{Y}} \; a_e^{pr} - s_{_{Y}} \, \widetilde{\mu} \; y_e^{pr} \right) \; \mathsf{LF_{4,1,-1}} \big[ \, \mathsf{m_{\tilde{l}}}^{\, p} \, , \; \mathsf{m_{\tilde{e}}}^{\, r} \big] \; \delta_{\text{ili2}} - \delta
                                                                                                                                                                                     \mathsf{g_2}^2 \, \left( \mathsf{c}_{\scriptscriptstyle{\Upsilon}} \, \overline{\mathsf{a_e}}^{\mathsf{pr}} - \mathsf{s}_{\scriptscriptstyle{\Upsilon}} \, \widetilde{\mu} \, \overline{\mathsf{y_e}}^{\mathsf{pr}} \right) \, \left( \mathsf{c}_{\scriptscriptstyle{\Upsilon}} \, \mathsf{a_e}^{\mathsf{pr}} - \mathsf{s}_{\scriptscriptstyle{\Upsilon}} \, \widetilde{\mu} \, \mathsf{y_e}^{\mathsf{pr}} \right) \, \mathsf{LF_{5,1,-2}} \big[ \, \mathsf{m_{\tilde{l}}}^{\mathsf{r}} \, \mathsf{,} \, \mathsf{m_{\tilde{e}}}^{\mathsf{r}} \big] \, \, \delta_{\mathsf{ili2}} + \mathsf{m_{\tilde{e}}}^{\mathsf{r}} \, \mathsf{h_{\tilde{e}}}^{\mathsf{r}} \, \mathsf{h_
                                                                                                                                                                                              \mathbf{g_2}^2 \; \left( \mathbf{c_{\scriptscriptstyle Y}} \; \overline{\mathbf{a_d}}^{\text{pr}} - \mathbf{s_{\scriptscriptstyle Y}} \, \widetilde{\boldsymbol{\mu}} \; \overline{\mathbf{y_d}}^{\text{pr}} \right) \; \left( \mathbf{c_{\scriptscriptstyle Y}} \; \mathbf{a_d}^{\text{pr}} - \mathbf{s_{\scriptscriptstyle Y}} \, \widetilde{\boldsymbol{\mu}} \; \mathbf{y_d}^{\text{pr}} \right) \; \mathsf{LF_{4,1,-1}} \big[ \, \boldsymbol{m_{\bar{q}}}^{\text{p}} \, , \; \boldsymbol{m_{\bar{d}}}^{\text{r}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \widetilde{\boldsymbol{\mu}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{m_{\bar{d}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \widetilde{\boldsymbol{\mu}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \widetilde{\boldsymbol{\mu}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \widetilde{\boldsymbol{\mu}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \widetilde{\boldsymbol{\mu}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, , \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2}} - \mathbf{a_{\scriptscriptstyle Y}} \; \boldsymbol{\mu_{\bar{q}}}^{\text{pr}} \, \big] \; \delta_{\text{ili2
                                                                                                                                                                                              \mathbf{g_2}^2 \; \left( \mathbf{c_{\scriptscriptstyle Y}} \; \overline{\mathbf{a_d}}^{\text{pr}} - \mathbf{s_{\scriptscriptstyle Y}} \; \widetilde{\boldsymbol{\mu}} \; \overline{\mathbf{y_d}}^{\text{pr}} \right) \; \left( \mathbf{c_{\scriptscriptstyle Y}} \; \mathbf{a_d}^{\text{pr}} - \mathbf{s_{\scriptscriptstyle Y}} \; \widetilde{\boldsymbol{\mu}} \; \mathbf{y_d}^{\text{pr}} \right) \; \mathsf{LF_{5,1,-2}} \left[ \, \mathbf{m_{\bar{q}}}^{\text{p}} \, , \; \mathbf{m_{\bar{d}}}^{\text{r}} \, \right] \; \delta_{\text{ili2}} + \mathbf{a_{\scriptscriptstyle X}} \; \widetilde{\boldsymbol{\mu}} \; \mathbf{a_{\scriptscriptstyle X}}^{\text{pr}} \; .
                                                                                                                                                                                         \mathbf{g_2}^2 \; \left( \, \mathbf{s_{\scriptscriptstyle Y}} \; \overline{\mathbf{a_u}}^{\text{pr}} - \widetilde{\boldsymbol{\mu}} \; \mathbf{c_{\scriptscriptstyle Y}} \; \overline{\mathbf{y_u}}^{\text{pr}} \right) \; \left( \, \mathbf{s_{\scriptscriptstyle Y}} \; \mathbf{a_u}^{\text{pr}} - \widetilde{\boldsymbol{\mu}} \; \mathbf{c_{\scriptscriptstyle Y}} \; \mathbf{y_u}^{\text{pr}} \right) \; \mathsf{LF_{2,2,0}} \left[ \, \mathbf{m_{\bar{q}}}^{\text{p}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, \right] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, \right] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, \right] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, \right] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, \right] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, \right] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, \right] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, \right] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, \right] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{r}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{pr}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{pr}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{pr}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{pr}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{pr}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{pr}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{pr}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{pr}} \, , \; \mathbf{m_{\bar{u}}}^{\text{pr}} \, ] \; \delta_{\text{11i2}} - \left[ \, \mathbf{m_{\bar{q}}}^{\text{p
                                                                                                                                                                                              \mathbf{g_2}^2 \left( \mathbf{s_{\scriptscriptstyle Y}} \; \overline{\mathbf{a_u}}^{\text{pr}} - \widetilde{\boldsymbol{\mu}} \; \mathbf{c_{\scriptscriptstyle Y}} \; \overline{\mathbf{y_u}}^{\text{pr}} \right) \; \left( \mathbf{s_{\scriptscriptstyle Y}} \; \mathbf{a_u}^{\text{pr}} - \widetilde{\boldsymbol{\mu}} \; \mathbf{c_{\scriptscriptstyle Y}} \; \mathbf{y_u}^{\text{pr}} \right) \; \mathsf{LF_{3,2,-1}} \big[ \, \mathbf{m_{\tilde{q}}}^{\, p} \, , \; \mathbf{m_{\tilde{u}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} \, , \; \mathbf{m_{\tilde{q}}}^{\, r} \, \big] \; \delta_{\text{ili2}} - \mathbf{m_{\tilde{q}}}^{\, r} 
                                                                                                                                                 \frac{1}{216} \; g_1^2 \; g_2^2 \; \mathsf{LF}_{2,1,0} \big[ \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\,\, \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}} \, 2} + \frac{1}{432} \; g_1^2 \; g_2^2 \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\,\, \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}} \, 2} + \frac{1}{432} \; g_1^2 \; g_2^2 \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\,\, \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}} \, 2} + \frac{1}{432} \; g_1^2 \; g_2^2 \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\,\, \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}} \, 2} + \frac{1}{432} \; g_1^2 \; g_2^2 \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\,\, \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}} \, 2} + \frac{1}{432} \; g_1^2 \; g_2^2 \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\,\, \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}} \, 2} + \frac{1}{432} \; g_1^2 \; g_2^2 \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\,\, \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}} \, 2} + \frac{1}{432} \; g_1^2 \; g_2^2 \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\,\, \dot{\mathsf{1}} \, 2} \,, \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}} \, 2} + \frac{1}{432} \; g_1^2 \; g_2^2 \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\,\, \dot{\mathsf{1}} \, 3} \,, \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}} \, 2} + \frac{1}{432} \; g_1^2 \; g_2^2 \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\,\, \dot{\mathsf{1}} \, 3} \,, \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}} \, 2} + \frac{1}{432} \; g_1^2 \; g_2^2 \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\tilde{\mathsf{q}}}^{\,\, \dot{\mathsf{1}} \, 3} \,, \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}} \, 3} + \frac{1}{432} \; g_1^2 \; g_2^2 \; \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\tilde{\mathsf{1}}\dot{\mathsf{1}} \, 3} \,, \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}} \, 3} + \frac{1}{432} \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}} \, 3} + \frac{1}{432} \; \mathsf{m}_1 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}} \, 3} + \frac{1}{432} \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}} \, 3} + \frac{1}{432} \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}} \, 3} + \frac{1}{432} \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}} \, 3} + \frac{1}{432} \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}} \, 3} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}} \, 3} + \frac{1}{432} \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}} \, 3} + \frac{1}{432} \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}} \, 3} + \frac{1}{432} \; \mathsf{m}_2 \, \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}} \, 
                                                                                                                                                 \frac{2}{9}\; {\rm g_2}^2\; {\rm g_3}^2\; {\rm LF_{2,1,0}} \big[\, {\rm m_{\tilde{q}}}^{\dot{1}2} \,,\, {\rm m_3} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} \,+\, \frac{1}{9}\; {\rm g_2}^2\; {\rm g_3}^2\; {\rm LF_{3,1,-1}} \big[\, {\rm m_{\tilde{q}}}^{\dot{1}2} \,,\, {\rm m_3} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} \,-\, {\rm m_3}^2 \,,\, {\rm m_3} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} \,+\, \frac{1}{9}\; {\rm g_2}^2\; {\rm g_3}^2\; {\rm LF_{3,1,-1}} \big[\, {\rm m_{\tilde{q}}}^{\dot{1}2} \,,\, {\rm m_3} \, \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} \,+\, {\rm m_3}^2 \,,\, {\rm 
                                                                                                                                                     \frac{1}{4} \; {g_2}^2 \; \left( s_\gamma \; \overline{a_u}^{pr} - \widetilde{\mu} \; c_\gamma \; \overline{y_u}^{pr} \right) \; \left( s_\gamma \; a_u^{pr} - \widetilde{\mu} \; c_\gamma \; y_u^{pr} \right) \; \mathsf{LF_{3,1,0}} \big[ \mathsf{m_{\tilde{u}}}^r, \; \mathsf{m_{\tilde{q}}}^p \big] \; \delta_{\texttt{ili2}} - \widetilde{a_u}^r + \widetilde{a_u}^r 
                                                                                                                                                                                         g_{2}^{2}\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)\;\mathsf{LF}_{3,2,-1}\!\left[\mathfrak{m}_{\widetilde{u}}^{\text{r}},\,\mathfrak{m}_{\widetilde{q}}^{\text{p}}\right]\,\delta_{\text{11i2}}+\frac{1}{2}\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}\right)\left(s_{\gamma}^{\text{pr}},\,s_{u}^{\text{pr}}
                                                                                                                                                                                         g_2^2 \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) \, \mathsf{LF_{4,1,-1}} \big[ \, \mathsf{m_{\tilde{u}}}^{\, \text{r}} \, , \, \mathsf{m_{\tilde{q}}}^{\, \text{p}} \big] \, \, \delta_{\text{ili2}} - \mathcal{G}_{\text{ini2}} \, + \mathcal{G}_{\text{i
                                                                                                                                                     \frac{1}{2}\;g_{2}^{\;2}\;\left(s_{\gamma}\;\overline{a_{u}}^{pr}-\widetilde{\mu}\;c_{\gamma}\;\overline{y_{u}}^{pr}\right)\;\left(s_{\gamma}\;a_{u}^{\;pr}-\widetilde{\mu}\;c_{\gamma}\;y_{u}^{\;pr}\right)\;LF_{5,1,-2}\!\left[m_{\widetilde{u}}^{\;r},\;m_{\widetilde{q}}^{\;p}\right]\;\delta_{\text{ili2}}-\frac{1}{2}\left(s_{\gamma}^{\;p},s_{u}^{\;pr}+\widetilde{\mu}^{\;p},s_{u}^{\;pr}\right)
                                                                                                                                                     \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF_{5,1,-3}} \left[ \widetilde{\mu} \; , \; \mathsf{m_1} \right] \; \delta_{\mathsf{1112}} \; + \; \frac{1}{3} \; \mathsf{m_1} \; \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF_{5,1,-2}} \left[ \widetilde{\mu} \; , \; \mathsf{m_1} \right] \; \delta_{\mathsf{1112}} \; + \; \frac{1}{3} \; \mathsf{m_2} \; \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \mathsf{LF_{5,1,-2}} \left[ \widetilde{\mu} \; , \; \mathsf{m_1} \right] \; \delta_{\mathsf{1112}} \; + \; \frac{1}{3} \; \mathsf{m_2} \; \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{g_2}^2 \; \mathsf{LF_{5,1,-2}} \left[ \widetilde{\mu} \; , \; \mathsf{m_1} \right] \; \delta_{\mathsf{1112}} \; + \; \frac{1}{3} \; \mathsf{m_2} \; \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{g_2}^2 \; \mathsf{LF_{5,1,-2}} \left[ \widetilde{\mu} \; , \; \mathsf{m_1} \right] \; \delta_{\mathsf{1112}} \; + \; \frac{1}{3} \; \mathsf{m_2} \; \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{g_2}^2 \; \mathsf{LF_{5,1,-2}} \left[ \widetilde{\mu} \; , \; \mathsf{m_1} \right] \; \delta_{\mathsf{1112}} \; + \; \frac{1}{3} \; \mathsf{m_2} \; \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \; \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \; \mathsf{s_{\scriptscriptstyle Y}} 
                                                                                                                                                     \frac{2}{3} g_2^4 LF_{3,1,-1}[\tilde{\mu}, m_2] \delta_{1112} + \frac{2}{3} m_2 s_{\gamma} \tilde{\mu} c_{\gamma} g_2^4 LF_{3,1,0}[\tilde{\mu}, m_2] \delta_{1112} +
                                                                                                                                                 \frac{1}{3} \; {g_2}^4 \; \mathsf{LF_{3,2,-2}} [\tilde{\mu} \;,\; \mathsf{m_2}] \; \delta_{\mathsf{ili2}} + \frac{2}{3} \; \mathsf{m_2} \; \mathsf{s_{\gamma}} \, \tilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_2}^4 \; \mathsf{LF_{3,2,-1}} [\tilde{\mu} \;,\; \mathsf{m_2}] \; \delta_{\mathsf{ili2}} - \frac{1}{3} \; \mathsf{m_2} \; \mathsf{s_{\gamma}} \, \tilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_{\gamma}} \; \tilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_{\gamma}} \; \mathsf{d_{\gamma}} \; \mathsf{d_{\gamma}}
                                                                                                                                                 \frac{9}{8} \; {\rm g_2}^4 \; {\rm LF_{4,1,-2}} \left[ \widetilde{\mu} \; , \; {\rm m_2} \right] \; \delta_{\rm ili2} - \frac{7}{4} \; {\rm m_2} \; {\rm s_{\gamma}} \; \widetilde{\mu} \; {\rm c_{\gamma}} \; {\rm g_2}^4 \; {\rm LF_{4,1,-1}} \left[ \widetilde{\mu} \; , \; {\rm m_2} \right] \; \delta_{\rm ili2} \; + \\
                                                                                                                                                 \frac{1}{2}\;{\rm g_2}^4\;{\rm LF_{5,1,-3}}\left[\tilde{\mu}\,,\,{\rm m_2}\right]\;\delta_{\rm ili_2}+{\rm m_2}\;{\rm s_\gamma}\;\tilde{\mu}\;{\rm c_\gamma}\;{\rm g_2}^4\;{\rm LF_{5,1,-2}}\left[\tilde{\mu}\,,\,{\rm m_2}\right]\;\delta_{\rm ili_2}-
                                                                                                                                                 \frac{1}{8} \ g_2{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ LF_{3,1,-1} \big[ \widetilde{\mu} \, , \ m_{\tilde{d}}^{-p} \big] \, + \, \frac{1}{24} \ g_2{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ LF_{4,1,-2} \big[ \widetilde{\mu} \, , \ m_{\tilde{d}}^{-p} \big] \, + \, \frac{1}{24} \ g_2{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ LF_{4,1,-2} \big[ \widetilde{\mu} \, , \ m_{\tilde{d}}^{-p} \big] \, + \, \frac{1}{24} \ g_2{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ LF_{4,1,-2} \big[ \widetilde{\mu} \, , \ m_{\tilde{d}}^{-p} \big] \, + \, \frac{1}{24} \ g_2{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ LF_{4,1,-2} \big[ \widetilde{\mu} \, , \ m_{\tilde{d}}^{-p} \big] \, + \, \frac{1}{24} \ g_2{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ LF_{4,1,-2} \big[ \widetilde{\mu} \, , \ m_{\tilde{d}}^{-p} \big] \, + \, \frac{1}{24} \ g_2{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ LF_{4,1,-2} \big[ \widetilde{\mu} \, , \ m_{\tilde{d}}^{-p} \big] \, + \, \frac{1}{24} \ g_2{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ LF_{4,1,-2} \big[ \widetilde{\mu} \, , \ m_{\tilde{d}}^{-p} \big] \, + \, \frac{1}{24} \ g_2{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ LF_{4,1,-2} \big[ \widetilde{\mu} \, , \ m_{\tilde{d}}^{-p} \big] \, + \, \frac{1}{24} \ g_2{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ LF_{4,1,-2} \big[ \widetilde{\mu} \, , \ m_{\tilde{d}}^{-p} \big] \, + \, \frac{1}{24} \ g_2{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ LF_{4,1,-2} \big[ \widetilde{\mu} \, , \ m_{\tilde{d}}^{-p} \big] \, + \, \frac{1}{24} \ g_2{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i2p} \ 
                                                                                                                                                                                                  \left(c_{\gamma}^{2}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{i2p}\,y_{d}^{rp}\,y_{d}^{i1s}+s_{\gamma}^{2}\,\overline{y_{u}}^{rs}\,\overline{y_{u}}^{i2p}\,y_{u}^{rp}\,y_{u}^{i1s}\right)\,LF_{2,1,0}\big[\widetilde{\mu}\,,\,m_{\tilde{q}}^{\,r}\big]+\frac{1}{2}\left(c_{\gamma}^{2}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{rs}\,
                                                                                                                                                     \left[-c_{\gamma}^{2}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{i2p}\,y_{d}^{rp}\,y_{d}^{i1s}-s_{\gamma}^{2}\,\overline{y_{u}}^{rs}\,\overline{y_{u}}^{i2p}\,y_{u}^{rp}\,y_{u}^{i1s}\right)\,\mathsf{LF}_{3,1,-1}\big[\tilde{\mu}\,,\,\mathfrak{m}_{\tilde{q}}^{\,r}\big]\,+
                                                                                                                                                                                                  \left(c_{\gamma}^{2}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{i2p}\,y_{d}^{\,rp}\,y_{d}^{\,i1s}+s_{\gamma}^{\,2}\,\overline{y_{u}}^{rs}\,\overline{y_{u}}^{i2p}\,y_{u}^{\,rp}\,y_{u}^{\,i1s}\right)\,LF_{4,1,-2}\big[\widetilde{\mu}\,,\,m_{\tilde{q}}^{\,r}\big]-\frac{1}{2}\left(c_{\gamma}^{\,2}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{i2p}\,y_{u}^{\,rp}\,y_{u}^{\,i1s}\right)\,LF_{4,1,-2}\big[\widetilde{\mu}\,,\,m_{\tilde{q}}^{\,r}\big]-\frac{1}{2}\left(c_{\gamma}^{\,2}\,\overline{y_{d}}^{rs}\,\overline{y_{d}}^{i2p}\,y_{u}^{\,rp}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}\,y_{u}^{\,i2p}
                                                                                                                                                                                         g_{2}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,y_{u}{}^{i\,1p}\,LF_{3,1,-1}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,y_{u}{}^{i\,1p}\,LF_{4,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,y_{u}{}^{i\,1p}\,LF_{4,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,y_{u}{}^{i\,2p}\,y_{u}{}^{i\,2p}\,LF_{4,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,y_{u}{}^{i\,2p}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,y_{u}{}^{i\,2p}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,y_{u}{}^{i\,2p}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,y_{u}{}^{i\,2p}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,\overline{y_{u}}{}^{2}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{2}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{p}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{p}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{p}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde{u}}{}^{p}\right]\,+\,\frac{1}{24}\,g_{2}{}^{p}\,A_{1,1,-2}\!\left[\widetilde{\mu}\,,\,m_{\tilde
                                                                                                                                                                                                           \mathbf{m_{1}} \; \mathbf{c_{\gamma}} \; \mathbf{g_{1}}^{2} \; \overline{\mathbf{y_{d}}}^{12p} \; \left( \mathbf{c_{\gamma}} \; \mathbf{a_{d}}^{11p} - \mathbf{s_{\gamma}} \; \widetilde{\boldsymbol{\mu}} \; \mathbf{y_{d}}^{11p} \right) \; \mathsf{LF_{2,1,1,0}} \left[ \, \mathbf{m_{1}} \, , \; \mathbf{m_{\bar{d}}}^{\, p} \, , \; \mathbf{m_{\bar{q}}}^{\, i1} \, \right] \; + \; \mathsf{m_{1}} \; \mathsf{m_{2}}^{\, i2p} \; \left( \, \mathbf{c_{\gamma}} \; \mathbf{a_{d}}^{\, i1p} - \mathbf{s_{\gamma}} \; \widetilde{\boldsymbol{\mu}} \; \mathbf{y_{d}}^{\, i1p} \right) \; \mathsf{LF_{2,1,1,0}} \left[ \, \mathbf{m_{1}} \, , \; \mathbf{m_{\bar{d}}}^{\, p} \, , \; \mathbf{m_{\bar{q}}}^{\, i1} \, \right] \; + \; \mathsf{m_{1}} \; \mathsf{m_{2}}^{\, p} \; \mathsf{m_{2}}^{\, p} \; \mathsf{m_{3}}^{\, p} \; \mathsf
                                                                                                                                                     \frac{1}{144}\;\mathsf{m_1}\;\mathsf{c_{_{Y}}}\;\mathsf{g_{1}}^2\;\overline{\mathsf{y_{d}}}^{\mathsf{i2p}}\;\left(\mathsf{c_{_{Y}}}\;\mathsf{a_{d}}^{\mathsf{i1p}}-\mathsf{s_{_{Y}}}\;\widetilde{\boldsymbol{\mu}}\;\mathsf{y_{d}}^{\mathsf{i1p}}\right)\;\mathsf{LF_{2,2,1,-1}}\!\left[\mathsf{m_{1}}\;,\;\mathsf{m_{\tilde{d}}}^\mathsf{p}\;,\;\mathsf{m_{\tilde{q}}}^{\mathsf{i1}}\right]\;\mathsf{+}\;
                                                                                                                                                 \frac{1}{72} \ \mathsf{m_1} \ \mathsf{c_{Y}} \ \mathsf{g_1}^2 \ \overline{\mathsf{y_d}}^{\mathsf{i2p}} \ \left( - \ \mathsf{c_{Y}} \ \mathsf{a_d}^{\mathsf{i1p}} + \ \mathsf{s_{Y}} \ \widetilde{\boldsymbol{\mu}} \ \mathsf{y_d}^{\mathsf{i1p}} \right) \ \mathsf{LF_{3,1,1,-1}} \big[ \ \mathsf{m_1} \ , \ \mathsf{m_{\bar{d}}}^p \ , \ \mathsf{m_{\bar{q}}}^{\mathsf{i1}} \big] \ + \\ \\ \mathsf{m_{1}} \ \mathsf{m_{2}} \ \mathsf{m_{2}}^{\mathsf{i1}} \ \mathsf{m_{3}} \ \mathsf{m_{3}}^{\mathsf{i1}} \ \mathsf{m_{3}} \ \mathsf{m_{3}}^{\mathsf{i1}} \big] \ \mathsf{m_{3}} \ \mathsf{m_{3}}^{\mathsf{i1}} \ \mathsf{m_{3}} \ \mathsf{m_{3
                                                                                                                                                                                                       \mathsf{m_1}\,\mathsf{c_{\scriptscriptstyle Y}}\,\mathsf{g_1}^2\,\mathsf{y_d}^{\mathsf{ilp}}\,\left(\mathsf{c_{\scriptscriptstyle Y}}\,\overline{\mathsf{a_d}}^{\mathsf{i2p}}\,-\,\mathsf{s_{\scriptscriptstyle Y}}\,\widetilde{\mu}\,\overline{\mathsf{y_d}}^{\mathsf{i2p}}\right)\,\mathsf{LF_{2,1,1,0}}\big[\mathsf{m_1},\,\mathsf{m_{\tilde{d}}}^\mathsf{p},\,\mathsf{m_{\tilde{q}}}^{\mathsf{i2}}\big]\,\,+\,\,
                                                                                                                                                                                                                                  m_{1}\;c_{\gamma}\;g_{1}^{\;2}\;y_{d}^{\;i\,1p}\;\left(c_{\gamma}\;\overline{a_{d}}^{\;i\,2p}-s_{\gamma}\;\widetilde{\mu}\;\overline{y_{d}}^{\;i\,2p}\right)\;\mathsf{LF}_{2,2,1,-1}\!\left[m_{1}\;,\;m_{\bar{d}}^{\;p}\;,\;m_{\bar{q}}^{\;i\,2}\right]\;+\;c_{\gamma}\;g_{1}^{\;2}\;g_{1}^{\;2p}\;\left(c_{\gamma}\;\overline{a_{d}}^{\;i\,2p}-s_{\gamma}\;\widetilde{\mu}\;\overline{y_{d}}^{\;i\,2p}\right)\;\mathsf{LF}_{2,2,1,-1}\!\left[m_{1}\;,\;m_{\bar{d}}^{\;p}\;,\;m_{\bar{q}}^{\;i\,2}\right]\;+\;c_{\gamma}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;2p}\;g_{1}^{\;
                                                                                                                                                     \frac{1}{72} \; \mathsf{m_1} \; \mathsf{c_{Y}} \; \mathsf{g_1}^2 \; \mathsf{y_d}^{\mathsf{ilp}} \; \left( - \, \mathsf{c_{Y}} \; \overline{\mathsf{a_d}}^{\mathsf{i2p}} + \, \mathsf{s_{Y}} \; \widetilde{\mu} \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \right) \; \mathsf{LF_{3,1,1,-1}} \big[ \, \mathsf{m_1} \, , \, \, \mathsf{m_{\tilde{d}}}^p \, , \, \, \mathsf{m_{\tilde{q}}}^{\mathsf{i2}} \big] \; - \; \mathsf{m_{\tilde{d}}}^{\mathsf{i2p}} \, , \, \, \mathsf{m_{\tilde{d}}}^{\mathsf{
                                                                                                                                                 \frac{1}{4} \ g_{1}{}^{2} \ c_{\gamma}{}^{2} \ \overline{y_{d}}{}^{i2p} \ y_{d}{}^{i1p} \ \mathsf{LF}_{2,1,1,-1} \big[ \, \mathsf{m}_{1} \,, \, \, \mathsf{m}_{\bar{d}}{}^{p} \,, \, \, \widetilde{\mu} \, \big] - \frac{1}{6} \ \mathsf{m}_{1} \ s_{\gamma} \ \widetilde{\mu} \ c_{\gamma} \ g_{1}{}^{2} \ \overline{y_{d}}{}^{i2p} \ y_{d}{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \, \mathsf{m}_{1} \,, \, \, \mathsf{m}_{\bar{d}}{}^{p} \,, \, \, \widetilde{\mu} \, \big] + \frac{1}{6} \ \mathsf{m}_{1} \ \mathsf{m}_{2} \ \mathsf{m}_{2} \ \mathsf{m}_{2} \ \mathsf{m}_{3} \ \mathsf{m
                                                                                                                                                     \frac{1}{6} \; g_{1}{}^{2} \; c_{\gamma}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{3,1,1,-2} \big[ \mathsf{m}_{1} , \; \mathsf{m}_{\tilde{d}}{}^{p} , \; \widetilde{\mu} \, \big] \; + \\ \frac{1}{6} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{3,1,1,-1} \big[ \mathsf{m}_{1} , \; \mathsf{m}_{\tilde{d}}{}^{p} , \; \widetilde{\mu} \, \big] \; + \\ \frac{1}{6} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{3,1,1,-1} \big[ \mathsf{m}_{1} , \; \mathsf{m}_{\tilde{d}}{}^{p} , \; \widetilde{\mu} \, \big] \; + \\ \frac{1}{6} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{3,1,1,-1} \big[ \mathsf{m}_{1} , \; \mathsf{m}_{\tilde{d}}{}^{p} , \; \widetilde{\mu} \, \big] \; + \\ \frac{1}{6} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{3,1,1,-1} \big[ \mathsf{m}_{1} , \; \mathsf{m}_{\tilde{d}}{}^{p} , \; \widetilde{\mu} \, \big] \; + \\ \frac{1}{6} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{d}}{}^{i2p} \; y_{d}{}^{i1p} \; \mathsf{LF}_{3,1,1,-1} \big[ \mathsf{m}_{1} , \; \mathsf{m}_{\tilde{d}}{}^{p} , \; \widetilde{\mu} \, \big] \; + \\ \frac{1}{6} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; \widetilde{\mu} \; 
                                                                                                                                                     \frac{1}{144} \; \mathsf{m_1} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{g_{\scriptscriptstyle 1}}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \left( - \, \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{a_d}^{\; \mathsf{i1p}} + \, \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\boldsymbol{\mu}} \; \mathsf{y_d}^{\; \mathsf{i1p}} \right) \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathsf{m_1} \, , \; \mathsf{m_{\bar{q}}}^{\; \mathsf{i1}} \, , \; \mathsf{m_{\bar{d}}}^{\; \mathsf{p}} \big] \; + \; \mathsf{m_{\bar{q}}}^{\; \mathsf{i2p}} \; \mathsf{m_{\bar{q}}}^{\; \mathsf{i3p}} \; \mathsf{h_{\bar{q}}}^{\; \mathsf{i3p}} \, \mathsf{m_{\bar{q}}}^{\; \mathsf{i3p}} \, \mathsf{h_{\bar{q}}}^{\; \mathsf{i
                                                                                                                                                     \frac{1}{36} \ \mathsf{m_1} \ \mathsf{s_{Y}} \ \mathsf{g_{1}}^{2} \ \overline{\mathsf{y_{u}}}^{12p} \ \left( - \ \mathsf{s_{Y}} \ \mathsf{a_{u}}^{11p} + \widetilde{\mu} \ \mathsf{c_{Y}} \ \mathsf{y_{u}}^{11p} \right) \ \mathsf{LF_{2,1,1,0}} \left[ \ \mathsf{m_{1}} \ , \ \mathsf{m_{\tilde{q}}}^{11} \ , \ \mathsf{m_{\tilde{u}}}^{p} \right] \ +
                                                                                                                                                     \frac{1}{72} \; \mathsf{m_1} \; \mathsf{s_{Y}} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2p}} \; \left( \mathsf{s_{Y}} \; \mathsf{a_u}^{\mathsf{i1p}} - \widetilde{\mu} \; \mathsf{c_{Y}} \; \mathsf{y_u}^{\mathsf{i1p}} \right) \; \mathsf{LF_{2,2,1,-1}} \big[ \mathsf{m_1} \, , \; \mathsf{m_{\bar{q}}}^{\mathsf{i1}} \, , \; \mathsf{m_{\bar{u}}}^{\mathsf{p}} \big] \; + \\
                                                                                                                                                                                                           \mathsf{m_1} \; \mathsf{s_{Y}} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2p}} \; \left( \mathsf{s_{Y}} \; \mathsf{a_u}^{\mathsf{i1p}} - \widetilde{\mu} \; \mathsf{c_{Y}} \; \mathsf{y_u}^{\mathsf{i1p}} \right) \; \mathsf{LF_{3,1,1,-1}} \big[ \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \, , \; \mathsf{m_{\tilde{u}}}^{\mathsf{p}} \big] \; + \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1p}} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1p}} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{p}} \big] \; + \; \mathsf{m_{\tilde{q}}}^{\mathsf{p}} \, , \; \mathsf
                                                                                                                                                     \frac{1}{36} \; \mathsf{m_1} \; \mathsf{s_{Y}} \; \mathsf{g_1}^2 \; \mathsf{y_u}^{\text{ilp}} \; \left( - \, \mathsf{s_{Y}} \; \overline{\mathsf{a_u}}^{\text{i2p}} + \widetilde{\mu} \; \mathsf{c_{Y}} \; \overline{\mathsf{y_u}}^{\text{i2p}} \right) \; \mathsf{LF_{2,1,1,0}} \left[ \, \mathsf{m_1} \, , \; \mathsf{m_{\bar{q}}}^{\text{i2}} \, , \; \mathsf{m_{\bar{u}}}^{\text{p}} \, \right] \; + \\
                                                                                                                                                     \frac{1}{72} \,\, \mathbf{m_1} \,\, \mathbf{s_{\scriptscriptstyle Y}} \,\, \mathbf{g_1}^2 \,\, \mathbf{y_u^{\,i1p}} \,\, \left( \, \mathbf{s_{\scriptscriptstyle Y}} \,\, \overline{\mathbf{a_u}}^{\,i2p} - \widetilde{\boldsymbol{\mu}} \,\, \mathbf{c_{\scriptscriptstyle Y}} \,\, \overline{\mathbf{y_u}}^{\,i2p} \right) \,\, \mathbf{LF_{2,2,1,-1}} \big[ \, \mathbf{m_1} \,, \,\, \mathbf{m_{\bar{q}}}^{\,i2} \,, \,\, \mathbf{m_{\bar{u}}}^{\,p} \, \big] \,\, + \,\, \mathbf{m_{\bar{q}}}^{\,i2p} \,\, 
                                                                                                                                                                                                       [\mathbf{m_1} \, \mathbf{s_{\gamma}} \, \mathbf{g_1}^2 \, \mathbf{y_u}^{i1p} \, (\mathbf{s_{\gamma}} \, \overline{\mathbf{a_u}}^{i2p} - \widetilde{\mu} \, \mathbf{c_{\gamma}} \, \overline{\mathbf{y_u}}^{i2p}) \, \mathsf{LF_{3,1,1,-1}} [\mathbf{m_1}, \, \mathbf{m_{\tilde{q}}}^{i2}, \, \mathbf{m_{\tilde{u}}}^p] + \mathbf{m_{\tilde{q}}}^{i2p} ]
                                                                                                                                                                                                       m_1 \, s_{\gamma} \, g_1^{\, 2} \, \overline{y_u^{\, i2p}} \, \left( - \, s_{\gamma} \, a_u^{\, i1p} + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, i1p} \right) \, \mathsf{LF}_{2,2,1,-1} \left[ \, \mathsf{m}_1 \, , \, \mathsf{m}_{\bar{u}}^{\, p} \, , \, \mathsf{m}_{\bar{q}}^{\, i1} \, \right] + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, i1p} \, 
                                                                                                                                                                                                           g_{1}{}^{2}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{i2p}\;y_{u}{}^{i1p}\;\mathsf{LF}_{2,1,1,-1}\big[m_{1}\;,\;m_{\tilde{u}}{}^{p}\;,\;\widetilde{\mu}\,\big]\;-\;\frac{1}{3}\;m_{1}\;s_{\gamma}\;\widetilde{\mu}\;c_{\gamma}\;g_{1}{}^{2}\;\overline{y_{u}}{}^{i2p}\;y_{u}{}^{i1p}\;\mathsf{LF}_{2,1,1,0}\big[m_{1}\;,\;m_{\tilde{u}}{}^{p}\;,\;\widetilde{\mu}\,\big]\;+\;\frac{1}{3}\;m_{1}\;s_{\gamma}\;\widetilde{\mu}\;c_{\gamma}\;g_{1}{}^{2}\;\overline{y_{u}}{}^{i2p}\;y_{u}{}^{i1p}\;\mathsf{LF}_{2,1,1,0}\big[m_{1}\;,\;m_{\tilde{u}}{}^{p}\;,\;\widetilde{\mu}\,\big]\;+\;\frac{1}{3}\;m_{1}\;s_{\gamma}\;\widetilde{\mu}\;c_{\gamma}\;g_{1}{}^{2}\;\overline{y_{u}}{}^{i2p}\;y_{u}{}^{i1p}\;\mathsf{LF}_{2,1,1,0}\big[m_{1}\;,\;m_{\tilde{u}}{}^{p}\;,\;\widetilde{\mu}\,\big]\;+\;\frac{1}{3}\;m_{1}\;s_{\gamma}\;\widetilde{\mu}\;c_{\gamma}\;g_{1}{}^{2}\;\overline{y_{u}}{}^{i2p}\;y_{u}{}^{i1p}\;\mathsf{LF}_{2,1,1,0}\big[m_{1}\;,\;m_{\tilde{u}}{}^{p}\;,\;\widetilde{\mu}\,\big]\;+\;\frac{1}{3}\;m_{1}\;s_{\gamma}\;\widetilde{\mu}\;s_{\gamma}\;\widetilde{\mu}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{i2p}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{i2p}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{i2p}\;s_{\gamma}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}}{}^{2}\;\overline{y_{u}
                                                                                                                                                                                              {g_{1}}^{2} \; {s_{\gamma}}^{2} \; \overline{y_{u}}^{i\, 2p} \; y_{u}{}^{i\, 1p} \; \mathsf{LF}_{3,1,1,-2} \left[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{u}}{}^{p} \, , \; \widetilde{\mu} \, \right] \; + \; \frac{1}{3} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{i\, 2p} \; y_{u}{}^{i\, 1p} \; \mathsf{LF}_{3,1,1,-1} \left[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{u}}{}^{p} \, , \; \widetilde{\mu} \, \right] \; + \; \frac{1}{3} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{i\, 2p} \; y_{u}{}^{i\, 1p} \; \mathsf{LF}_{3,1,1,-1} \left[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{u}}{}^{p} \, , \; \widetilde{\mu} \, \right] \; + \; \frac{1}{3} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{i\, 2p} \; y_{u}{}^{i\, 1p} \; \mathsf{LF}_{3,1,1,-1} \left[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{u}}{}^{p} \, , \; \widetilde{\mu} \, \right] \; + \; \frac{1}{3} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{i\, 2p} \; y_{u}{}^{i\, 1p} \; \mathsf{LF}_{3,1,1,-1} \left[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\bar{u}}{}^{p} \, , \; \widetilde{\mu} \, \right] \; + \; \frac{1}{3} \; \mathsf{m}_{1} \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; g_{1}{}^{2p} \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; \widetilde{\mu} \; \widetilde{\mu}
                                                                                                                                                 \frac{7}{48}~g_1^{~2}~c_\gamma^{~2}~\overline{y_d}^{i2p}~y_d^{~i1p}~LF_{2,2,1,-2}\big[\,m_1\,,~\widetilde{\mu}\,,~m_{\bar{d}}^{-p}\,\big] +
                                                                                                                                                                                                           \mathsf{s}_{\gamma}\;\widetilde{\boldsymbol{\mu}}\;\mathsf{g_{1}}^{2}\;\overline{\mathsf{y_{d}}}^{12p}\;\mathsf{y_{d}}^{11p}\;\left(\mathsf{10}\;\mathsf{m_{1}}\;\mathsf{c}_{\gamma}\;\mathsf{+}\;\mathsf{3}\;\mathsf{s}_{\gamma}\;\widetilde{\boldsymbol{\mu}}\right)\;\mathsf{LF_{2,2,1,-1}}\!\left[\mathsf{m_{1}}\;\!,\;\widetilde{\boldsymbol{\mu}}\;\!,\;\mathsf{m_{\tilde{d}}}^{-p}\right]\;\mathsf{+}\;
                                                                                                                                                                                                                {g_1}^2 \, \left( {{c_{\gamma}}^2} \, \overline{{y_d}}^{i2p} \, {y_d}^{i1p} - {s_{\gamma}}^2 \, \overline{{y_u}}^{i2p} \, {y_u}^{i1p} \right) \, LF_{2,2,1,-2} \! \left[ {m_1} \, , \, \widetilde{\mu} \, , \, {m_{\tilde{q}}}^{i1} \right] \, + \, \left( {m_1} \, , \, {m_{\tilde{q}}}^{i1} \, , \, {m_{\tilde{q}}}
                                                                                                                                                                                                       m_1 s_{\gamma} \widetilde{\mu} c_{\gamma} g_1^2 \left(\overline{y_d}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_u^{i1p}\right) LF_{2,2,1,-1}[m_1, \widetilde{\mu}, m_{\tilde{q}}^{i1}] +
                                                                                                                                                                                                                \frac{1}{2} m_1 s_{\gamma} \widetilde{\mu} c_{\gamma} g_1^2 \left( \overline{y_d}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_u^{i1p} \right) LF_{2,2,1,-1} [m_1, \widetilde{\mu}, m_{\tilde{q}}^{i2}] + \frac{1}{2} m_1 s_{\gamma} \widetilde{\mu} c_{\gamma} g_1^2 \left( \overline{y_d}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_u^{i1p} \right) LF_{2,2,1,-1} [m_1, \widetilde{\mu}, m_{\tilde{q}}^{i2}] + \frac{1}{2} m_1 s_{\gamma} \widetilde{\mu} c_{\gamma} g_1^2 \left( \overline{y_d}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_d^{i1p} \right) LF_{2,2,1,-1} [m_1, \widetilde{\mu}, m_{\tilde{q}}^{i2}] + \frac{1}{2} m_1 s_{\gamma} \widetilde{\mu} c_{\gamma} g_1^2 \left( \overline{y_d}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_d^{i1p} \right) LF_{2,2,1,-1} [m_1, \widetilde{\mu}, m_{\tilde{q}}^{i2}] + \frac{1}{2} m_1 s_{\gamma} \widetilde{\mu} c_{\gamma} g_1^2 \left( \overline{y_d}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_d^{i1p} \right) LF_{2,2,1,-1} [m_1, \widetilde{\mu}, m_{\tilde{q}}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_d^{i1p} \right) LF_{2,2,1,-1} [m_1, \widetilde{\mu}, m_{\tilde{q}}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_d^{i1p} \right) LF_{2,2,2,1,-1} [m_1, \widetilde{\mu}, m_{\tilde{q}}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_d^{i1p} \right) LF_{2,2,2,1,-1} [m_1, \widetilde{\mu}, m_{\tilde{q}}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_d^{i1p} \right) LF_{2,2,2,1,-1} [m_1, \widetilde{\mu}, m_{\tilde{q}}^{i2p} y_d^{i1p} - \overline{y_u}^{i2p} y_d^{i1p} + \overline{
                                                                                                                                                                                                                g_{1}{}^{2}\; s_{\gamma}{}^{2}\; \overline{y_{u}}{}^{i\, 2p}\; y_{u}{}^{i\, 1p}\; LF_{2,\, 2,\, 1,\, -2}\left[\, m_{1}\,,\; \widetilde{\mu}\,,\; m_{\bar{u}}^{\;\;p}\,\right] \; + \; \frac{1}{48}\; \widetilde{\mu}\; c_{\gamma}\; g_{1}{}^{2}\; \overline{y_{u}}{}^{i\, 2p}\; y_{u}{}^{i\, 1p}
                                                                                                                                                                                         (\textbf{14}\ \textbf{m}_{1}\ \textbf{s}_{\gamma}\ +\ \textbf{3}\ \widetilde{\mu}\ \textbf{c}_{\gamma})\ \textbf{LF}_{\textbf{2},\textbf{2},\textbf{1},\textbf{-1}}\big[\textbf{m}_{1}\ ,\ \widetilde{\mu}\ ,\ \textbf{m}_{\tilde{\textbf{u}}}^{\,\,\textbf{p}}\,\big]\ +\ \frac{1}{8}\ \textbf{g}_{\textbf{2}}^{\,\,\textbf{4}}\ \textbf{LF}_{\textbf{2},\textbf{1},\textbf{1},\textbf{-1}}\big[\textbf{m}_{\textbf{2}}\ ,\ \textbf{m}_{\tilde{\textbf{q}}}^{\,\,\tilde{\textbf{1}}^{\,\,\textbf{2}}}\ ,\ \widetilde{\mu}\,\big]\ \delta_{\dot{\textbf{1}}\dot{\textbf{1}}\dot{\textbf{1}}2}\ -\ \textbf{m}_{\dot{\textbf{2}}}^{\,\,\dot{\textbf{2}}}\ \textbf{m}_{\dot{\textbf{2}}}\ \textbf{m}_{\dot{\textbf{2}}}^{\,\,\dot{\textbf{2}}}\ \textbf{m}_{\dot{\textbf{2}}}^{\,\,\dot{\textbf{2}}}\ \textbf{m}_{\dot{\textbf{2}}}\ \textbf{m}_{\dot{\textbf{2}}}^{\,\,\dot{\textbf{2}}}\ \textbf{m}_{\dot{\textbf{2}}}\ \textbf{
                                                                                                                                                     \frac{1}{4}\; {g_{2}}^{4}\; {m_{2}}^{2}\; LF_{2,1,1,0}\left[\, m_{2}\,,\, m_{\tilde{q}}^{-\dot{1}2}\,,\, \tilde{\mu}\,\right] \; \delta_{\dot{1}\dot{1}\dot{2}} - \frac{1}{16}\; {g_{2}}^{2}\; {c_{\gamma}}^{2}\; \overline{y_{d}}^{\dot{1}2p}\; y_{d}^{\;\dot{1}1p}\; LF_{2,2,1,-2}\left[\, m_{2}\,,\, \tilde{\mu}\,,\, m_{\tilde{d}}^{-\dot{p}}\,\right] \; - \frac{1}{16}\; {g_{2}}^{2}\; {c_{\gamma}}^{2}\; \overline{y_{d}}^{\dot{1}2p}\; y_{d}^{\;\dot{1}1p}\; LF_{2,2,1,-2}\left[\, m_{2}\,,\, \tilde{\mu}\,,\, m_{\tilde{d}}^{-\dot{p}}\,\right] \; - \frac{1}{16}\; {g_{2}}^{2}\; {c_{\gamma}}^{2}\; \overline{y_{d}}^{\dot{1}2p}\; y_{d}^{\;\dot{1}2p}\; LF_{2,2,1,-2}\left[\, m_{2}\,,\, \tilde{\mu}\,,\, m_{\tilde{d}}^{-\dot{p}}\,\right] \; - \frac{1}{16}\; {g_{2}}^{2}\; {c_{\gamma}}^{2}\; \overline{y_{d}}^{\dot{1}2p}\; y_{d}^{\;\dot{1}2p}\; LF_{2,2,1,-2}\left[\, m_{2}\,,\, \tilde{\mu}\,,\, m_{\tilde{d}}^{-\dot{p}}\,\right] \; - \frac{1}{16}\; {g_{2}}^{2}\; {c_{\gamma}}^{2}\; \overline{y_{d}}^{\dot{1}2p}\; y_{d}^{\;\dot{1}2p}\; LF_{2,2,1,-2}\left[\, m_{2}\,,\, \tilde{\mu}\,,\, m_{\tilde{d}}^{-\dot{p}}\,\right] \; - \frac{1}{16}\; {g_{2}}^{2}\; \overline{y_{d}}^{\dot{1}2p}\; y_{d}^{\;\dot{1}2p}\; LF_{2,2,1,-2}\left[\, m_{2}\,,\, \tilde{\mu}\,,\, m_{\tilde{d}}^{\dot{p}}\,,\, m_{\tilde{d}}^{\dot{p}}\,\right] \; - \frac{1}{16}\; {g_{2}}^{2}\; \overline{y_{d}}^{\dot{1}2p}\; y_{d}^{\dot{1}2p}\; Y_{
                                                                                                                                                                                                       \left\{ \mathbf{s}_{\gamma}\,\widetilde{\mu}\,\mathbf{g_{2}}^{2}\,\overline{\mathbf{y_{d}}}^{12p}\,\mathbf{y_{d}}^{11p}\,\left(\mathbf{2}\,\mathbf{m_{2}}\,\mathbf{c}_{\gamma}+\mathbf{s}_{\gamma}\,\widetilde{\mu}\right)\,\mathsf{LF}_{\mathbf{2,2,1,-1}}\left[\mathbf{m_{2},\,\widetilde{\mu},\,\mathbf{m_{d}^{-P}}}\right]+\right\}
                                                                                                                                                     \frac{3}{16} \ g_{2}^{2} \ \left(c_{\gamma}^{2} \ \overline{y_{d}}^{i2p} \ y_{d}^{i1p} + s_{\gamma}^{2} \ \overline{y_{u}}^{i2p} \ y_{u}^{i1p}\right) \ \mathsf{LF}_{2,2,1,-2}\big[\mathsf{m}_{2} \ , \ \tilde{\mu} \ , \ \mathsf{m}_{\tilde{q}}^{i1}\big] \ + \\
                                                                                                                                                                                                           \textbf{m}_2~\textbf{s}_{\gamma}~\widetilde{\mu}~\textbf{c}_{\gamma}~\textbf{g}_2^{~2}~\left(\overline{\textbf{y}_d}^{\textrm{i2p}}~\textbf{y}_d^{\textrm{i1p}}+\overline{\textbf{y}_u}^{\textrm{i2p}}~\textbf{y}_u^{\textrm{i1p}}\right)~\textbf{LF}_{\textrm{2,2,1,-1}}\big[\textbf{m}_2\textrm{,}~\widetilde{\mu}\textrm{,}~\textbf{m}_{\tilde{\textbf{q}}}
                                                                                                                                                     \frac{1}{16} g_{2}^{2} \left(3 c_{\gamma}^{2} \overline{y_{d}}^{i2p} y_{d}^{i1p} + 3 s_{\gamma}^{2} \overline{y_{u}}^{i2p} y_{u}^{i1p} + 2 g_{2}^{2} \delta_{i1i2}\right) LF_{2,2,1,-2} \left[m_{2}, \tilde{\mu}, m_{\tilde{q}}^{i2}\right] + \frac{1}{16} g_{2}^{2} \left(3 c_{\gamma}^{2} \overline{y_{d}}^{i2p} y_{d}^{i1p} + 3 s_{\gamma}^{2} \overline{y_{u}}^{i2p} y_{u}^{i1p} + 2 g_{2}^{2} \delta_{i1i2}\right) LF_{2,2,1,-2} \left[m_{2}, \tilde{\mu}, m_{\tilde{q}}^{i2}\right] + \frac{1}{16} g_{2}^{2} \left(3 c_{\gamma}^{2} \overline{y_{d}}^{i2p} y_{d}^{i1p} + 3 s_{\gamma}^{2} \overline{y_{u}}^{i2p} y_{u}^{i1p} + 2 g_{2}^{2} \delta_{i1i2}\right) LF_{2,2,1,-2} \left[m_{2}, \tilde{\mu}, m_{\tilde{q}}^{i2}\right] + \frac{1}{16} g_{2}^{2} \left(3 c_{\gamma}^{2} \overline{y_{d}}^{i2p} y_{d}^{i1p} + 3 s_{\gamma}^{2} \overline{y_{u}}^{i2p} y_{u}^{i1p} + 3 s_{\gamma}^{2} \overline{y_{u}}^{i1p} + 3
                                                                                                                                                     \frac{1}{16} \text{ m}_2 \text{ g}_2^2 \left(3 \text{ s}_{\gamma} \, \widetilde{\mu} \, c_{\gamma} \, \left(\overline{y_d}^{i2p} \, y_d^{i1p} + \overline{y_u}^{i2p} \, y_u^{i1p}\right) + 2 \, g_2^2 \, \left(\text{m}_2 + 4 \, \text{s}_{\gamma} \, \widetilde{\mu} \, c_{\gamma}\right) \, \delta_{\text{ili2}}\right)
                                                                                                                                                                                \mathsf{LF_{2,2,1,-1}}\big[\mathsf{m_2}\,,\,\tilde{\mu}\,,\,\mathsf{m_{\tilde{q}}}^{i2}\big]\,-\,\tfrac{1}{16}\;\mathsf{g_2}^2\;\mathsf{s_\gamma}^2\;\overline{\mathsf{y_u}}^{i2p}\;\mathsf{y_u}^{i1p}\;\mathsf{LF_{2,2,1,-2}}\big[\mathsf{m_2}\,,\,\tilde{\mu}\,,\,\mathsf{m_{\tilde{u}}}^p\big]\,-\,\mathsf{m_2}^2\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,\mathsf{v_u}^{i2p}\,
                                                                                                                                                     \frac{1}{16} \; \widetilde{\mu} \; \mathbf{c_{\gamma}} \; \mathbf{g_2}^2 \; \overline{\mathbf{y_u}}^{\texttt{i2p}} \; \mathbf{y_u}^{\texttt{i1p}} \; (2 \; \mathbf{m_2} \; \mathbf{s_{\gamma}} + \widetilde{\mu} \; \mathbf{c_{\gamma}}) \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathbf{m_2} \, , \; \widetilde{\mu_{\bullet}} \, \mathbf{m_{\tilde{u}}}^{\mathsf{p}} \big] \; + \\
                                                                                                                                                          \frac{1}{3} \, m_3 \, c_{\gamma} \, g_{3}^{\, 2} \, \overline{y_{d}}^{i \, 2p} \, \left( - \, c_{\gamma} \, a_{d}^{\, i \, 1p} + \, s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, i \, 1p} \right) \, \mathsf{LF}_{2, 1, 1, 0} \left[ \, m_{3} \, , \, m_{\bar{d}}^{\, \, p} \, , \, m_{\bar{q}}^{\, \, i \, 1} \, \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + \, c_{\gamma} \, \widetilde{\mu} \, y_{d}^{\, \, i \, 1p} + 
                                                                                                                                                                                              \text{m}_{3}\;c_{\text{Y}}\;g_{\text{3}}^{2}\;\overline{y_{\text{d}}}^{\text{12p}}\;\left(-\,c_{\text{Y}}\;a_{\text{d}}^{\,\text{11p}}\,+\,s_{\text{Y}}\;\widetilde{\mu}\;y_{\text{d}}^{\,\text{11p}}\right)\;\text{LF}_{\text{2,2,1,-1}}\big[\,\text{m}_{\text{3}}\,,\,\text{m}_{\text{d}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text{m}_{\text{q}}^{\,\text{-p}}\,,\,\text
                                                                                                                                                                                         \mathsf{m_{3}}\;\mathsf{c_{\gamma}}\;\mathsf{g_{3}}^{2}\;\overline{\mathsf{y_{d}}}^{\text{i2p}}\;\left(\mathsf{c_{\gamma}}\;\mathsf{a_{d}}^{\text{i1p}}-\mathsf{s_{\gamma}}\;\widetilde{\mu}\;\mathsf{y_{d}}^{\text{i1p}}\right)\;\mathsf{LF_{3,1,1,-1}}\!\left[\mathsf{m_{3}}\;,\;\mathsf{m_{\tilde{d}}}^{\text{p}}\;,\;\mathsf{m_{\tilde{q}}}^{\text{i1}}\right]\;+\;
                                                                                                                                                     \frac{1}{3} \; \mathsf{m_3} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{g_3}^2 \; \mathsf{y_d}^{\mathsf{ilp}} \; \left( - \, \mathsf{c_{\scriptscriptstyle Y}} \; \overline{\mathsf{a_d}}^{\mathsf{i}2\mathsf{p}} + \, \mathsf{s_{\scriptscriptstyle Y}} \, \widetilde{\mu} \; \overline{\mathsf{y_d}}^{\mathsf{i}2\mathsf{p}} \right) \; \mathsf{LF_{2,1,1,0}} \left[ \, \mathsf{m_3} \, , \, \, \mathsf{m_{\bar{d}}^{\,\mathsf{p}}} \, , \, \, \mathsf{m_{\bar{q}}^{\,\mathsf{i}2}} \, \right] \; + \; \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \; \overline{\mathsf{y_d}}^{\mathsf{i}2\mathsf{p}} \right] \; \mathsf{LF_{2,1,1,0}} \left[ \, \mathsf{m_3} \, , \, \, \, \mathsf{m_{\bar{d}}^{\,\mathsf{p}}} \, , \, \, \, \mathsf{m_{\bar{q}}^{\,\mathsf{i}2}} \, \right] \; + \; \mathsf{m_{\bar{q}}^{\,\mathsf{i}2}} \, \right] \; + \; \mathsf{m_{\bar{q}}^{\,\mathsf{i}2\mathsf{p}}} \; \mathsf{LF_{2,1,1,0}} \left[ \, \mathsf{m_3} \, , \, \, \, \, \, \mathsf{m_{\bar{q}}^{\,\mathsf{p}}} \, , \, \, \, \, \mathsf{m_{\bar{q}}^{\,\mathsf{i}2}} \, \right] \; + \; \mathsf{m_{\bar{q}}^{\,\mathsf{i}2\mathsf{p}}} \; + \; \mathsf{m_{\bar{q}}^{\,\mathsf{i}2\mathsf{p}}} \, \right] \; + \; \mathsf{m_{\bar{q}}^{\,\mathsf{i}2\mathsf{p}}} \; \right] \; + \; \mathsf{m_{\bar{q}}^{\,\mathsf{i}2\mathsf{p}}} \; + \; \mathsf{m_{\bar{q}}^{\,\mathsf{i}2\mathsf{p}} \; + \; \mathsf{m_{\bar{q}}^{\,\mathsf{i}2\mathsf{p}}} \; + \; \mathsf{m_{\bar{q}}^{\,\mathsf{i}2\mathsf{p}} \; + \; \mathsf{m_{\bar{q}}^{\,\mathsf{i}2\mathsf{p}}} \; + \; \mathsf{m_{\bar{q}}^{\,\mathsf{i}
                                                                                                                                                                                         \textbf{m}_{3} \; \textbf{c}_{\gamma} \; \textbf{g}_{3}^{\; 2} \; \textbf{y}_{d}^{\; \text{ilp}} \; \left( - \, \textbf{c}_{\gamma} \; \overline{\textbf{a}_{d}}^{\; \text{i}2p} + \, \textbf{s}_{\gamma} \; \widetilde{\boldsymbol{\mu}} \; \overline{\textbf{y}_{d}}^{\; \text{i}2p} \right) \; \textbf{LF}_{2,2,1,-1} \big[ \, \textbf{m}_{3} \, , \; \textbf{m}_{\tilde{d}}^{\; p} \, , \; \textbf{m}_{\tilde{q}}^{\; \text{i}2} \big] \; + \; \textbf{m}_{\tilde{q}}^{\; \text{i}2} \, .
                                                                                                                                                                                         \mathsf{m_{3}}\; \mathsf{c_{\gamma}}\; \mathsf{g_{3}}^{2}\; \mathsf{y_{d}}^{\text{ilp}}\; \left(\; \mathsf{c_{\gamma}}\; \overline{\mathsf{a_{d}}}^{\text{i2p}} - \mathsf{s_{\gamma}}\; \widetilde{\mu}\; \overline{\mathsf{y_{d}}}^{\text{i2p}}\right) \; \mathsf{LF_{3,1,1,-1}} \big[\; \mathsf{m_{3}}\; ,\; \mathsf{m_{\tilde{q}}}^{\text{p}}\; ,\; \mathsf{m_{\tilde{q}}}^{\text{i2}}\big] \; + \\
                                                                                                                                                                                         \mathsf{m_{3}}\;c_{\gamma}\;g_{3}{}^{2}\;\overline{y_{d}}{}^{i2p}\;\left(c_{\gamma}\;a_{d}{}^{i1p}-s_{\gamma}\;\widetilde{\mu}\;y_{d}{}^{i1p}\right)\;\mathsf{LF_{2,2,1,-1}}\big[\mathsf{m_{3}}\;,\;\mathsf{m_{\tilde{q}}}{}^{i1}\;,\;\mathsf{m_{\tilde{d}}}{}^{p}\big]\;+
                                                                                                                                                 \stackrel{\circ}{\underset{\scriptscriptstyle 1}{\overset{\circ}{\scriptscriptstyle 1}}} m_3 \, s_\gamma \, g_3^2 \, \overline{y_u}^{i2p} \, \left( - \, s_\gamma \, a_u^{\, i1p} + \widetilde{\mu} \, \, c_\gamma \, y_u^{\, i1p} \right) \, \mathsf{LF}_{2,1,1,0} \big[ \, m_3 \, , \, m_{\bar{q}}^{\, i1} \, , \, m_{\bar{u}}^{\, p} \big] \, + \, \widetilde{\mathcal{L}}_{2,1,1,0} \, \left[ \, m_3 \, , \, m_{\bar{q}}^{\, i1} \, , \, m_{\bar{u}}^{\, p} \, \right] \, + \, \widetilde{\mathcal{L}}_{2,1,1,0} \left[ \, m_3 \, , \, m_{\bar{q}}^{\, i1} \, , \, m_{\bar{q}}^{\, i2} \, , \, m_{\bar{q}}^{\, i2} \, , \, m_{\bar{q}}^{\, i2} \, \right] \, + \, \widetilde{\mathcal{L}}_{2,1,1,0} \left[ \, m_3 \, , \, m_{\bar{q}}^{\, i2} \, , \, m
                                                                                                                                                                                         \text{m}_{3} \; \text{s}_{\gamma} \; \text{g}_{3}{}^{2} \; \overline{\text{y}_{u}}{}^{\text{i2p}} \; \left( \, \text{s}_{\gamma} \; \text{a}_{u}{}^{\text{i1p}} - \widetilde{\mu} \; \text{c}_{\gamma} \; \text{y}_{u}{}^{\text{i1p}} \right) \; \text{LF}_{2,2,1,-1} \big[ \, \text{m}_{3} \, , \; \text{m}_{\tilde{q}}{}^{\text{i1}} \, , \; \text{m}_{\tilde{u}}{}^{\text{p}} \, \big] \; + \; \text{m}_{\tilde{u}}{}^{\text{p}} \, \big[ \, \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}} \, \big] \; + \; \text{m}_{\tilde{u}}{}^{\text{p}} \, \big[ \, \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}} \, \big[ \, \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}} \, \big] \; + \; \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}} \; \big[ \, \text{s}_{\tilde{u}} \; \text{s}_{\tilde{u}
                                                                                                                                                     \frac{1}{2} m_3 s_{\gamma} g_3^2 \overline{y_u}^{i2p} \left( s_{\gamma} a_u^{i1p} - \widetilde{\mu} c_{\gamma} y_u^{i1p} \right) LF_{3,1,1,-1} [m_3, m_{\tilde{q}}]
                                                                                                                                                     \frac{\text{i}}{\epsilon} \; \text{m}_{3} \; \text{c}_{\text{Y}} \; \text{g}_{\text{3}}^{\text{2}} \; \text{y}_{\text{d}}^{\text{ilp}} \; \left( \text{c}_{\text{Y}} \; \overline{\text{a}_{\text{d}}}^{\text{i2p}} - \text{s}_{\text{Y}} \; \widetilde{\mu} \; \overline{\text{y}_{\text{d}}}^{\text{i2p}} \right) \; \text{LF}_{2,2,1,-1} \big[ \, \text{m}_{3} \, , \; \text{m}_{\bar{\text{q}}}^{\text{i2}} \, , \; \text{m}_{\bar{\text{d}}}^{\text{-p}} \big] \; + \; \text{constants} \; \text{where} \; \text{constants} \; \text{con
                                                                                                                                                 \frac{1}{3} \; m_{3} \; s_{\gamma} \; g_{3}^{\; 2} \; y_{u}^{\; i1p} \; \left( - \, s_{\gamma} \; \overline{a_{u}}^{\; i2p} \, + \, \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; i2p} \right) \; \mathsf{LF}_{2,1,1,0} \left[ \, m_{3} \, , \; m_{\tilde{q}}^{\; i2} \, , \; m_{\tilde{u}}^{\; p} \, \right] \; + \, \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; i2p} \; \left( - \, s_{\gamma} \; \overline{a_{u}}^{\; i2p} \, + \, \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; i2p} \right) \; \mathsf{LF}_{2,1,1,0} \left[ \, m_{3} \, , \; m_{\tilde{q}}^{\; i2} \, , \; m_{\tilde{u}}^{\; p} \, \right] \; + \, \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; i2p} \; \left( - \, s_{\gamma} \; \overline{a_{u}}^{\; i2p} \, + \, \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; i2p} \, \right) \; \mathsf{LF}_{2,1,1,0} \left[ \, m_{3} \, , \; m_{\tilde{q}}^{\; i2} \, , \; m_{\tilde{u}}^{\; i2p} \, \right] \; + \, \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; i2p} \; \left( - \, s_{\gamma} \; \overline{a_{u}}^{\; i2p} \, + \, \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; i2p} \, \right) \; \mathsf{LF}_{2,1,1,0} \left[ \, m_{3} \, , \; m_{\tilde{q}}^{\; i2p} \, , \; m_{\tilde{u}}^{\; i2p} \, \right] \; + \, \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{\; i2p} 
                                                                                                                                                     \frac{1}{6} \; m_3 \; s_{\gamma} \; g_3^2 \; y_u^{\text{ilp}} \; \left( s_{\gamma} \; \overline{a_u}^{\text{i2p}} - \widetilde{\mu} \; c_{\gamma} \; \overline{y_u}^{\text{i2p}} \right) \; \text{LF}_{2,2,1,-1} \big[ \, m_3 \, , \; m_{\bar{q}}^{\text{i2}} \, , \; m_{\bar{u}}^{\text{p}} \big] \; + \; \frac{1}{6} \; m_3 \; s_{\gamma} \; g_3^2 \; y_u^{\text{i1p}} \; \left( s_{\gamma} \; \overline{a_u}^{\text{i2p}} - \widetilde{\mu} \; c_{\gamma} \; \overline{y_u}^{\text{i2p}} \right) \; \text{LF}_{2,2,1,-1} \big[ \, m_3 \, , \; m_{\bar{q}}^{\text{i2}} \, , \; m_{\bar{u}}^{\text{p}} \big] \; + \; \frac{1}{6} \; m_3 \; s_{\gamma} \; g_3^2 \; y_u^{\text{i1p}} \; \left( s_{\gamma} \; \overline{a_u}^{\text{i2p}} - \widetilde{\mu} \; c_{\gamma} \; \overline{y_u}^{\text{i2p}} \right) \; \text{LF}_{2,2,1,-1} \big[ \, m_3 \, , \; m_{\bar{q}}^{\text{i2p}} \, , \; m_{\bar{u}}^{\text{p}} \, \big] \; + \; \frac{1}{6} \; m_3 \; s_{\gamma} \; g_3^2 \; y_u^{\text{i1p}} \; \left( s_{\gamma} \; \overline{a_u}^{\text{i2p}} - \widetilde{\mu} \; c_{\gamma} \; \overline{y_u}^{\text{i2p}} \right) \; \text{LF}_{2,2,1,-1} \big[ \, m_3 \, , \; m_{\bar{q}}^{\text{i2p}} \, , \; m_{\bar{u}}^{\text{i2p}} \, \big] \; + \; \frac{1}{6} \; m_3 \; s_{\gamma} \; g_3^2 \; y_u^{\text{i1p}} \; \left( s_{\gamma} \; \overline{a_u}^{\text{i2p}} + m_{\bar{u}}^{\text{i2p}} \, , \; m_{\bar{u}}^{\text{i2p}} \, \right) \; + \; \frac{1}{6} \; m_3 \; s_{\gamma} \; g_3^2 \; y_u^{\text{i1p}} \; \left( s_{\gamma} \; \overline{a_u}^{\text{i2p}} + m_{\bar{u}}^{\text{i2p}} \, , \; m_{\bar{u}}^{\text{i2p}} \, \right) \; + \; \frac{1}{6} \; m_3 \; s_{\gamma} \; g_3^2 \; y_u^{\text{i2p}} \; , \; m_{\bar{u}}^{\text{i2p}} \; , \;
                                                                                                                                                     \frac{1}{3} \; \mathsf{m_3} \; \mathsf{s_{Y}} \; \mathsf{g_{3}}^2 \; \mathsf{y_u}^{\text{ilp}} \; \left( \mathsf{s_{Y}} \; \overline{\mathsf{a_u}}^{\text{i2p}} - \widetilde{\mu} \; \mathsf{c_{Y}} \; \overline{\mathsf{y_u}}^{\text{i2p}} \right) \; \mathsf{LF_{3,1,1,-1}} \big[ \, \mathsf{m_3} \, , \; \mathsf{m_{\tilde{q}}}^{\text{i2}} \, , \; \mathsf{m_{\tilde{u}}}^{\text{p}} \big] \; + \\
                                                                                                                                                                                              \textbf{m}_{3} \; \textbf{s}_{\gamma} \; \textbf{g}_{3}^{\; 2} \; \overline{\textbf{y}_{u}}^{\text{i2p}} \; \left( - \, \textbf{s}_{\gamma} \; a_{u}^{\; \text{i1p}} + \, \widetilde{\mu} \; \textbf{c}_{\gamma} \; \textbf{y}_{u}^{\; \text{i1p}} \right) \; \textbf{LF}_{\textbf{2,2,1,-1}} \big[ \, \textbf{m}_{3} \, , \; \textbf{m}_{\tilde{u}}^{\; p} \, , \; \textbf{m}_{\tilde{q}}^{\; \text{i1}} \big] \; + \\
                                                                                                                                                                                         \textbf{m}_{3} \textbf{s}_{\gamma} \textbf{g}_{3}^{2} \textbf{y}_{u}^{\text{ilp}} \left( -\textbf{s}_{\gamma} \overline{\textbf{a}_{u}}^{\text{i2p}} + \widetilde{\mu} \textbf{c}_{\gamma} \overline{\textbf{y}_{u}}^{\text{i2p}} \right) \textbf{LF}_{\textbf{2},\textbf{2},\textbf{1},\textbf{-1}} \big[ \textbf{m}_{3} \textbf{,} \textbf{m}_{\tilde{u}}^{\text{p}} \textbf{,} \textbf{m}_{\tilde{q}}^{\text{i2}} \big] + \widetilde{\mu} \textbf{c}_{\gamma} \overline{\textbf{y}_{u}}^{\text{i2p}} 
                                                                                                                                                                                                           s_{\gamma}\,\widetilde{\mu}\,\overline{y_{d}}^{\text{i2p}}\,\overline{y_{u}}^{\text{rs}}\,y_{u}^{\text{i1s}}\,\left(-\,c_{\gamma}\,a_{d}^{\,\text{rp}}\,+\,s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\text{rp}}\right)\,\text{LF}_{\text{2,2,1,-1}}\big[\,\text{m}_{\bar{d}}^{\,\text{-p}}\,,\,\widetilde{\mu}\,,\,\text{m}_{\bar{q}}^{\,\text{r}}\,\big]\,+\,s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\text{rp}}
                                                                                                                                                                                                           s_{\gamma}\,\widetilde{\mu}\,\,y_{d}^{\,\textrm{ilr}}\,\,\overline{y_{u}}^{\,\textrm{i2s}}\,\,y_{u}^{\,\textrm{ps}}\,\left(-\,c_{\gamma}\,\,\overline{a_{d}}^{\textrm{pr}}\,+\,s_{\gamma}\,\widetilde{\mu}\,\,\overline{y_{d}}^{\textrm{pr}}\right)\,\,\mathsf{LF}_{\textrm{2,2,1,-1}}\big[\,\mathsf{m}_{d}^{\,\textrm{-r}}\,,\,\,\widetilde{\mu}\,,\,\,\mathsf{m}_{\tilde{q}}^{\,\textrm{-p}}\,\big]\,\,+\,\,\mathsf{m}_{\tilde{q}}^{\,\textrm{-p}}\,\,.
                                                                                                                                                                                                           \mathsf{s}_{\gamma}\,\tilde{\mu}\,\,\mathsf{y_d}^{\,\mathsf{ilr}}\,\,\overline{\mathsf{y_u}}^{\,\mathsf{i2s}}\,\,\mathsf{y_u}^{\,\mathsf{ps}}\,\,\big(c_{\gamma}\,\,\overline{a_d}^{\,\mathsf{pr}}\,-\,\mathsf{s}_{\gamma}\,\tilde{\mu}\,\,\overline{\mathsf{y_d}}^{\,\mathsf{pr}}\big)\,\,\mathsf{LF_{2,2,1,-1}}\big[\,\mathsf{m_{\tilde{q}}}^{\,\mathsf{p}}\,,\,\,\tilde{\mu}\,,\,\,\mathsf{m_{\tilde{d}}}^{\,\mathsf{r}}\,\big]\,\,+\,\,\mathsf{m_{\tilde{d}}}^{\,\mathsf{pr}}\,\,.
                                                                                                                                                                                                                              s_{_{Y}}\,\tilde{\mu}\;c_{_{Y}}\,\overline{y_{d}}^{\text{i2s}}\;y_{d}^{\,\text{ps}}\;y_{u}^{\,\text{i1r}}\,\overline{a_{u}}^{\text{pr}}\;LF_{2,2,1,,-1}\big[m_{\tilde{q}}^{\,\text{p}},\;\tilde{\mu},\;m_{\tilde{u}}^{\,\text{r}}\big]\;+
                                                                                                                                                          \frac{1}{16} \; \widetilde{\mu} \; \mathbf{c}_{\gamma} \; \overline{\mathbf{y_d}}^{\mathsf{pr}} \; \mathbf{y_d}^{\mathsf{ilr}} \; \overline{\mathbf{y_u}}^{\mathsf{i2s}} \; \left( \mathbf{s}_{\gamma} \; \mathbf{a_u}^{\mathsf{ps}} - \widetilde{\mu} \; \mathbf{c}_{\gamma} \; \mathbf{y_u}^{\mathsf{ps}} \right) \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathbf{m_q^{-p}} \, , \; \widetilde{\mu} \, , \; \mathbf{m_u^{-s}} \big] \; + \\
                                                                                                                                                     \frac{1}{16} \tilde{\mu}^2 c_{\gamma}^2 \overline{y_d}^{i2p} y_d^{rp} \overline{y_u}^{rs} y_u^{i1s} LF_{2,2,1,-1}[m_{\tilde{q}}^r, \tilde{\mu}, m_{\tilde{u}}^s] -
                                                                                                                                                     \frac{1}{16} \; \widetilde{\mu} \; c_{\Upsilon} \, \overline{y_d}^{\text{pr}} \; y_d^{\text{ilr}} \, \overline{y_u^{\text{i2s}}} \; \left( - \, s_{\Upsilon} \; a_u^{\text{ps}} + \widetilde{\mu} \; c_{\Upsilon} \; y_u^{\text{ps}} \right) \; \mathsf{LF}_{2,2,1,-1} \left[ \, \mathsf{m}_{\widetilde{u}}^{\, \, \, \mathsf{s}} \, , \; \widetilde{\mu} \, , \; \mathsf{m}_{\widetilde{q}}^{\, \, \, \mathsf{p}} \, \right] \; + \; \widetilde{\mu} \; c_{\Upsilon} \, y_u^{\, \, \, \mathsf{ps}} \right) \; \mathsf{LF}_{2,2,1,-1} \left[ \, \mathsf{m}_{\widetilde{u}}^{\, \, \, \mathsf{s}} \, , \; \widetilde{\mu} \, , \; \mathsf{m}_{\widetilde{q}}^{\, \, \, \mathsf{p}} \, \right] \; + \; \widetilde{\mu} \; c_{\Upsilon} \, y_u^{\, \, \, \, \mathsf{ps}} \right] \; \mathsf{LF}_{2,2,1,-1} \left[ \, \mathsf{m}_{\widetilde{u}}^{\, \, \, \, \mathsf{s}} \, , \; \widetilde{\mu} \, , \; \mathsf{m}_{\widetilde{q}}^{\, \, \, \mathsf{p}} \, \right] \; + \; \widetilde{\mu} \; c_{\Upsilon} \, y_u^{\, \, \, \, \mathsf{ps}} \right] \; \mathsf{LF}_{2,2,1,-1} \left[ \, \mathsf{m}_{\widetilde{u}}^{\, \, \, \, \mathsf{s}} \, , \; \widetilde{\mu} \, , \; \mathsf{m}_{\widetilde{q}}^{\, \, \, \mathsf{p}} \, \right] \; \mathsf{LF}_{2,2,1,-1} \left[ \, \mathsf{m}_{\widetilde{u}}^{\, \, \, \, \mathsf{s}} \, , \; \widetilde{\mu} \, , \; \mathsf{m}_{\widetilde{q}}^{\, \, \, \mathsf{p}} \, \right] \; + \; \widetilde{\mu} \; \mathsf{LF}_{2,2,1,-1} \left[ \, \mathsf{m}_{\widetilde{u}}^{\, \, \, \, \mathsf{s}} \, , \; \widetilde{\mu} \, , \; \mathsf{m}_{\widetilde{q}}^{\, \, \, \mathsf{p}} \, \right] \; \mathsf{LF}_{2,2,1,-1} \left[ \, \mathsf{m}_{\widetilde{u}}^{\, \, \, \, \mathsf{s}} \, , \; \widetilde{\mu} \, , \; \mathsf{m}_{\widetilde{q}}^{\, \, \, \mathsf{p}} \, \right] \; \mathsf{LF}_{2,2,1,-1} \left[ \, \mathsf{m}_{\widetilde{u}}^{\, \, \, \, \mathsf{s}} \, , \; \widetilde{\mu} \, , \; \mathsf{m}_{\widetilde{q}}^{\, \, \, \mathsf{p}} \, \right] \; \mathsf{LF}_{2,2,1,-1} \left[ \, \mathsf{m}_{\widetilde{u}}^{\, \, \, \, \mathsf{s}} \, , \; \widetilde{\mu} \, , \; \mathsf{m}_{\widetilde{q}}^{\, \, \, \mathsf{p}} \, , \; \widetilde{\mu}_{\widetilde{q}}^{\, \, \, \mathsf{p}} \, , \; \widetilde{\mu}_{\widetilde{q}}^{\, \, \, \mathsf{p}} \, \right] \; \mathsf{LF}_{2,2,1,-1} \left[ \, \mathsf{m}_{\widetilde{u}}^{\, \, \, \, \mathsf{s}} \, , \; \widetilde{\mu}_{\widetilde{q}}^{\, \, \, \, \mathsf{p}} \, \right] \; \mathsf{LF}_{2,2,1} \left[ \, \mathsf{m}_{\widetilde{q}}^{\, \, \, \, \, \mathsf{p}} \, , \; \widetilde{\mu}_{\widetilde{q}}^{\, \, \, \, \, \mathsf{p}} \, , \; \widetilde{\mu}_{\widetilde{q}}^{\, \, \, \, \mathsf{p}} \, , \; \widetilde{\mu}_{\widetilde{q}}^{\, \, \, \, 
                                                                                                                                                 \frac{1}{16} \; \widetilde{\mu}^2 \; \mathbf{C_{Y}}^2 \; \overline{\mathbf{y_d}}^{\mathbf{i2p}} \; \mathbf{y_d}^{\mathsf{rp}} \; \overline{\mathbf{y_u}}^{\mathsf{rs}} \; \mathbf{y_u}^{\mathsf{i1s}} \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathbf{m_{\tilde{u}}}^{\mathsf{s}} \, \mathbf{,} \; \widetilde{\mu} \, \mathbf{,} \; \mathbf{m_{\tilde{q}}}^{\mathsf{r}} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\mathsf{r}} \, \mathbf{m_{\tilde{q}}}^{\mathsf
                                                                                                                                                     \frac{1}{16} \ g_1{}^2 \ c_\gamma{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{2,1,1,-1} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,\,p} \big] - \frac{1}{8} \ g_1{}^2 \ \mathsf{S}_\gamma{}^2 \ \widetilde{\mu}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,\,p} \big] + \frac{1}{8} \ g_1{}^2 \ \mathsf{S}_\gamma{}^2 \ \widetilde{\mu}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,\,p} \big] + \frac{1}{8} \ g_1{}^2 \ \mathsf{S}_\gamma{}^2 \ \widetilde{\mu}^2 \ \overline{y_d}{}^{i2p} \ \mathsf{S}_\gamma{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,\,p} \big] + \frac{1}{8} \ \mathsf{S}_\gamma{}^2 \ \widetilde{\mu}^2 \ \overline{y_d}{}^{i2p} \ \mathsf{S}_\gamma{}^{i2p} \ \mathsf{S}_\gamma{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,\,p} \big] + \frac{1}{8} \ \mathsf{S}_\gamma{}^2 \ \mathsf{S}_\gamma{}^2 \ \mathsf{S}_\gamma{}^2 \ \mathsf{S}_\gamma{}^2 \ \mathsf{S}_\gamma{}^{i2p} \ \mathsf{S}_\gamma{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{d}}^{\,\,p} \big] + \frac{1}{8} \ \mathsf{S}_\gamma{}^2 \ \mathsf{S
                                                                                                                                                 \frac{1}{16} \ g_{1}^{\ 2} \ \left(-\, c_{\gamma}^{\ 2} \ \overline{y_{d}}^{i\, 2p} \ y_{d}^{\ i\, 1p} \, + \, s_{\gamma}^{\ 2} \ \overline{y_{u}}^{i\, 2p} \ y_{u}^{\ i\, 1p}\right) \ \mathsf{LF}_{2,1,1,-1} \left[\, \widetilde{\mu} \, , \, \, \mathsf{m}_{1} \, , \, \, \mathsf{m}_{\bar{q}}^{\ i\, 1} \, \right] \, + \, s_{\gamma}^{\ 2} \, \overline{y_{u}}^{i\, 2p} \, y_{u}^{\ i\, 1p} + \, s_{\gamma}^{\ 2} \, \overline{y_{u}}^{i\, 2p} \, y_{u}^{\ i\, 1p} \right) \ \mathsf{LF}_{2,1,1,-1} \left[\, \widetilde{\mu} \, , \, \, \mathsf{m}_{1} \, , \, \, \, \mathsf{m}_{\bar{q}}^{\ i\, 1} \, \right] \, + \, s_{\gamma}^{\ 2} \, \overline{y_{u}}^{i\, 2p} \, y_{u}^{\ i\, 2p} \, y_{u}^{\ i\, 2p} \, y_{u}^{\ i\, 2p} \, y_{u}^{\ i\, 2p} \right] \, \mathsf{LF}_{2,1,1,1,-1} \left[\, \widetilde{\mu} \, , \, \, \mathsf{m}_{1} \, , \, \, \, \mathsf{m}_{\bar{q}}^{\ i\, 1} \, \right] \, + \, s_{\gamma}^{\ 2} \, \overline{y_{u}}^{\ i\, 2p} \, y_{u}^{\ i\, 2p}
                                                                                                                                                                                                       \left\{ \mathbf{m_1} \, \mathbf{s_{\scriptscriptstyle Y}} \, \widetilde{\boldsymbol{\mu}} \, \mathbf{c_{\scriptscriptstyle Y}} \, \mathbf{g_1}^2 \, \left( - \overline{\mathbf{y_d}}^{\mathsf{i2p}} \, \mathbf{y_d}^{\mathsf{i1p}} + \overline{\mathbf{y_u}}^{\mathsf{i2p}} \, \mathbf{y_u}^{\mathsf{i1p}} \right) \, \mathsf{LF_{2,1,1,0}} \left[ \widetilde{\boldsymbol{\mu}} \,, \, \mathbf{m_1} \,, \, \mathbf{m_{\tilde{q}}}^{\mathsf{i1}} \right] + \right.
                                                                                                                                                                                                                {g_{1}}^{2} \, \left( \, {c_{\gamma}}^{2} \, \overline{y_{d}}^{i2p} \, {y_{d}}^{i1p} \, - \, {s_{\gamma}}^{2} \, \overline{y_{u}}^{i2p} \, {y_{u}}^{i1p} \right) \, LF_{3,1,1,-2} \big[ \, \widetilde{\mu} \, , \, m_{1} \, , \, m_{\tilde{q}}^{\, i1} \big] \, + \, \left( \, {c_{\gamma}}^{2} \, \overline{y_{d}}^{i2p} \, {y_{d}}^{i2p} \, {y_{d}}^{i1p} \, - \, {s_{\gamma}}^{2} \, \overline{y_{u}}^{i2p} \, {y_{u}}^{i1p} \, \right) \, LF_{3,1,1,-2} \big[ \, \widetilde{\mu} \, , \, m_{1} \, , \, m_{\tilde{q}}^{\, i1} \big] \, + \, \left( \, {c_{\gamma}}^{2} \, \overline{y_{d}}^{i2p} \, {y_{d}}^{i2p} \, {y_{d}}^{i1p} \, - \, {s_{\gamma}}^{2} \, \overline{y_{u}}^{i2p} \, {y_{u}}^{i1p} \, - \, {s_{\gamma}}^{2} \, \overline{y_{u}}^{i1p} \, - \, {s_{\gamma}}^{2} \, - \, {s_{\gamma}}^{2} \, \overline{y_{u}}^{i1p} \, - \, {s_{\gamma}}^{2} \, \overline{y_{u}}^{i1p} \, - \, {s_{\gamma}}^{2} \, - \, {s_{\gamma}}^{2} \, - \, {s_{\gamma}}^{2} \, - \, {
                                                                                                                                                                   \frac{1}{2^d} \, \mathbf{m_1} \, \mathbf{s_{\scriptscriptstyle Y}} \, \widetilde{\boldsymbol{\mu}} \, \mathbf{c_{\scriptscriptstyle Y}} \, \mathbf{g_1}^2 \, \left( \overline{\mathbf{y_d}}^{\mathsf{i2p}} \, \mathbf{y_d}^{\mathsf{i1p}} - \overline{\mathbf{y_u}}^{\mathsf{i2p}} \, \mathbf{y_u}^{\mathsf{i1p}} \right) \, \mathsf{LF_{3,1,1,-1}} \big[ \widetilde{\boldsymbol{\mu}} \,, \, \mathbf{m_1} \,, \, \mathbf{m_{\tilde{q}}} \,, \, \mathbf{m_{\tilde{q}}}
                                                                                                                                                     \frac{1}{16} \ g_1^2 \ \left(- \, c_{\gamma}^{\ 2} \ \overline{y_d}^{i\, 2p} \ y_d^{\, i\, 1p} + s_{\gamma}^{\ 2} \ \overline{y_u}^{i\, 2p} \ y_u^{\, i\, 1p}\right) \ \mathsf{LF}_{2,1,1,-1} \big[\, \widetilde{\mu} \, , \, m_1 \, , \, m_{\tilde{q}}^{\, i\, 2}\, \big] \ + \\
                                                                                                                                                          \frac{1}{24} \, \, m_1 \, s_\gamma \, \widetilde{\mu} \, c_\gamma \, g_1^2 \, \left( - \overline{y_d}^{i2p} \, y_d^{i1p} + \overline{y_u}^{i2p} \, y_u^{i1p} \right) \, \mathsf{LF}_{2,1,1,0} \left[ \widetilde{\mu} \, , \, m_1 \, , \, m_{\widetilde{q}}^{i2} \right] \, + \, \frac{1}{24} \, m_1 \, s_\gamma \, \widetilde{\mu} \, c_\gamma \, g_1^2 \, \left( - \overline{y_d}^{i2p} \, y_d^{i1p} + \overline{y_u}^{i2p} \, y_u^{i1p} \right) \, \mathsf{LF}_{2,1,1,0} \left[ \widetilde{\mu} \, , \, m_1 \, , \, m_{\widetilde{q}}^{i2} \right] \, + \, \frac{1}{24} \, m_1 \, s_\gamma \, \widetilde{\mu} \, c_\gamma \, g_1^2 \, \left( - \overline{y_d}^{i2p} \, y_d^{i1p} + \overline{y_u}^{i2p} \, y_u^{i1p} \right) \, \mathsf{LF}_{2,1,1,0} \left[ \widetilde{\mu} \, , \, m_1 \, , \, m_{\widetilde{q}}^{i2} \right] \, + \, \frac{1}{24} \, m_1 \, s_\gamma \, \widetilde{\mu} \, c_\gamma \, g_1^2 \, \left( - \overline{y_d}^{i2p} \, y_d^{i1p} + \overline{y_u}^{i2p} \, y_u^{i1p} \right) \, \mathsf{LF}_{2,1,1,0} \left[ \widetilde{\mu} \, , \, m_1 \, , \, m_{\widetilde{q}}^{i2p} \, y_u^{i1p} \right] \, + \, \frac{1}{24} \, m_1 \, s_\gamma \, \widetilde{\mu} \, c_\gamma \, g_1^2 \, \left( - \overline{y_d}^{i2p} \, y_u^{i1p} + \overline{y_u}^{i2p} \, y_u^{i1p} \right) \, \mathsf{LF}_{2,1,1,0} \left[ \widetilde{\mu} \, , \, m_1 \, , \, m_{\widetilde{q}}^{i2p} \, y_u^{i1p} \right] \, + \, \frac{1}{24} \, m_1 \, s_\gamma \, \widetilde{\mu} \, c_\gamma \, g_1^2 \, \left( - \overline{y_d}^{i2p} \, y_u^{i1p} + \overline{y_d}^{i2p} \, y_u^{i1p} \right) \, \mathsf{LF}_{2,1,1,0} \left[ \widetilde{\mu} \, , \, m_1 \, , \, m_{\widetilde{q}}^{i2p} \, y_u^{i1p} \right] \, + \, \frac{1}{24} \, m_1 \, s_\gamma \, \widetilde{\mu} \, c_\gamma \, \widetilde{\mu} \, \widetilde{\mu} \, \widetilde{\mu} \, c_\gamma \, \widetilde{\mu} \,
                                                                                                                                                     \frac{1}{24} g_{1}^{2} \left( c_{\gamma}^{2} \overline{y_{d}}^{i2p} y_{d}^{i1p} - s_{\gamma}^{2} \overline{y_{u}}^{i2p} y_{u}^{i1p} \right) LF_{3,1,1,-2} \left[ \widetilde{\mu}, m_{1}, m_{\tilde{q}}^{i2} \right] +
                                                                                                                                                                                                       \left\{ \mathbf{m_1} \, \mathbf{s_{\scriptscriptstyle Y}} \, \widetilde{\boldsymbol{\mu}} \, \mathbf{c_{\scriptscriptstyle Y}} \, \mathbf{g_{\scriptscriptstyle 1}}^2 \, \left( \overline{\mathbf{y_d}}^{\texttt{i2p}} \, \mathbf{y_d}^{\texttt{i1p}} - \overline{\mathbf{y_u}}^{\texttt{i2p}} \, \mathbf{y_u}^{\texttt{i1p}} \right) \, \mathsf{LF_{3,1,1,-1}} \big[ \widetilde{\boldsymbol{\mu}} \,, \, \mathbf{m_1} \,, \, \mathbf{m_{\tilde{q}}}^{\texttt{i2}} \big] \, + \, \mathbf{m_{\tilde{q}}}^{\texttt{i2p}} \, \mathbf{y_d}^{\texttt{i2p}} \, \mathbf{y_d}^{\texttt{i2p}} \,, \, \mathbf{y_d}^{\texttt{i2p}} \,,
                                                                                                                                                     \frac{1}{16} \ g_1{}^2 \ s_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,1,1,-1} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{u}}{}^p \big] - \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{u}}{}^p \big] - \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{u}}{}^p \big] - \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{u}}{}^p \big] - \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{u}}{}^p \big] - \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{u}}{}^p \big] - \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{u}}{}^p \big] - \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{u}}{}^p \big] - \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ s_y{}^2 \ \widetilde{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{u}}{}^p \big] - \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ s_y{}^2 \ \widetilde{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_{\bar{u}}{}^p \big] - \frac{1}{8} \ g_1{}^2 \ \widetilde{\mu}^2 \ s_y{}^2 \ \widetilde{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_2 \,, \, \mathsf{LF}_{2,1,1,1} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_2 \,, \, \mathsf{LF}_{2,1,1,1} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{m}_2 \,, \, \mathsf{LF}_{2,1,1,1} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{LF}_{2,1,1,1} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{LF}_{2,1,1} \big[ \widetilde{\mu} \,, \, \mathsf{m}_1 \,, \, \mathsf{LF}_{2,1,1} \big] + \frac{1}{8} \ \widetilde{\mu} \,, \, \mathsf{LF}_{2,1,1} \big[ \widetilde{\mu} \,, \, \mathsf{LF}_{2,1} \big[ \widetilde{\mu} \,, \, \mathsf{LF}_{2,1,1} \big[ \widetilde{\mu} \,, \, \mathsf{LF}_{2,1} \big[ \widetilde{\mu} \,, \, \mathsf{LF}_{2,1} \big[ \widetilde{\mu} \,, \, \, \mathsf{LF}_{2,1} \big[ \widetilde{\mu} \,, \, \, \mathsf{LF}_{
                                                                                                                                                     \frac{1}{16} \ g_2{}^2 \ c_\gamma{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{2,1,1,-1}\big[\tilde{\mu} \,,\, \mathsf{m}_2 \,,\, \mathsf{m}_{\tilde{d}}{}^p\big] \,+\, \frac{1}{8} \ g_2{}^2 \ s_\gamma{}^2 \ \tilde{\mu}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu} \,,\, \mathsf{m}_2 \,,\, \mathsf{m}_{\tilde{d}}{}^p\big] \,-\, \frac{1}{8} \ g_2{}^2 \ s_\gamma{}^2 \ \tilde{\mu}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu} \,,\, \mathsf{m}_2 \,,\, \mathsf{m}_{\tilde{d}}{}^p\big] \,-\, \frac{1}{8} \ g_2{}^2 \ s_\gamma{}^2 \ \tilde{\mu}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu} \,,\, \mathsf{m}_2 \,,\, \mathsf{m}_{\tilde{d}}{}^p\big] \,-\, \frac{1}{8} \ g_2{}^2 \ s_\gamma{}^2 \ \tilde{\mu}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu} \,,\, \mathsf{m}_2 \,,\, \mathsf{m}_{\tilde{d}}{}^p\big] \,-\, \frac{1}{8} \ g_2{}^2 \ s_\gamma{}^2 \ \tilde{\mu}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i2p} \ y_d{}^{i2p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu} \,,\, \mathsf{m}_2 \,,\, \mathsf{m}_{\tilde{d}}{}^p\big] \,-\, \frac{1}{8} \ g_2{}^2 \ s_\gamma{}^2 \ \tilde{\mu}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i2p} \ y_d{}^{i2p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu} \,,\, \mathsf{m}_2 \,,\, \mathsf{m}_{\tilde{d}}{}^p\big] \,-\, \frac{1}{8} \ g_2{}^2 \ s_\gamma{}^2 \ \tilde{\mu}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i2p} \ y_d{}^{i2p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu} \,,\, \mathsf{m}_2 \,,\, \mathsf{m}_{\tilde{d}}{}^p\big] \,-\, \frac{1}{8} \ g_2{}^2 \ s_\gamma{}^2 \ \tilde{\mu}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i2p} \ y_d{}^{i2p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu} \,,\, \mathsf{m}_2 \,,\, \mathsf{m}_{\tilde{d}}{}^p\big] \,-\, \frac{1}{8} \ g_2{}^2 \ s_\gamma{}^2 \ \tilde{\mu}^2 \ s_\gamma{}^2 \ \tilde{\mu}^2
                                                                                                                                                     \frac{9}{16} \ g_2{}^2 \ \left( c_\gamma{}^2 \ \overline{y_d}^{i2p} \ y_d{}^{i1p} + s_\gamma{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \right) \ \mathsf{LF}_{2,1,1,-1} \big[ \widetilde{\mu} \,, \, \mathsf{m}_2 \,, \, \mathsf{m}_{\bar{q}}{}^{i1} \big] \ -
                                                                                                                                                                                         \mathsf{m_2} \; \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\boldsymbol{\mu}} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{g_2}^2 \; \left( \overline{y_d}^{\texttt{i2p}} \; y_d^{\texttt{i1p}} + \overline{y_u}^{\texttt{i2p}} \; y_u^{\texttt{i1p}} \right) \; \mathsf{LF_{2,1,1,0}} \left[ \widetilde{\boldsymbol{\mu}} \; , \; \mathsf{m_2} \; , \; \mathsf{m_{\tilde{q}}}^{\texttt{i1}} \right] \; + \; \boldsymbol{\mu}_{\boldsymbol{\mu}}^{\texttt{i2p}} \; \boldsymbol{\mu}_{\boldsymbol{\mu}}^{\texttt{i2p}} \; \boldsymbol{\mu}_{\boldsymbol{\mu}}^{\texttt{i1p}} \right] \; + \; \boldsymbol{\mu}_{\boldsymbol{\mu}}^{\texttt{i2p}} \; \boldsymbol{\mu}_{\boldsymbol{\mu}}^{\texttt{i2
                                                                                                                                                                                         g_{2}{}^{2}\,\left(\,c_{\gamma}{}^{2}\,\overline{y_{d}}^{i\,2p}\,\,y_{d}{}^{i\,1p}\,+\,s_{\gamma}{}^{2}\,\overline{y_{u}}^{i\,2p}\,\,y_{u}{}^{i\,1p}\,\right)\,\,LF_{3,1,1,-2}\!\left[\,\widetilde{\mu}\,,\,m_{2}\,,\,m_{\tilde{q}}{}^{i\,1}\,\right]\,+\,c_{\gamma}{}^{2}\,\overline{y_{d}}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,A_{3,1,1,-2}\left[\,\widetilde{\mu}\,,\,m_{2}\,,\,m_{\tilde{q}}{}^{i\,1}\,\right]\,+\,c_{\gamma}{}^{2}\,\overline{y_{u}}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{i\,2p}\,\,y_{u}{}^{
                                                                                                                                                                                         \text{m}_{2} \text{ s}_{\gamma} \, \widetilde{\mu} \text{ c}_{\gamma} \, \text{g}_{2}^{\,\, 2} \, \left( \overline{y_{d}}^{\,\, 12p} \, y_{d}^{\,\, 11p} + \overline{y_{u}}^{\,\, 12p} \, y_{u}^{\,\, 11p} \right) \, \text{LF}_{3,1,1,-1} \big[ \widetilde{\mu} \,, \, \text{m}_{2} \,, \, \text{m}_{\tilde{q}}^{\,\, 11} \big] \, - \, \left( \overline{\mu}_{1} \,, \, \overline{\mu}_{2} \,, 
                                                                                                                                                          \frac{9}{16} \; g_2^{\; 2} \; \left( c_\gamma^{\; 2} \; \overline{y_d}^{i\, 2p} \; y_d^{\; i\, 1p} + s_\gamma^{\; 2} \; \overline{y_u}^{i\, 2p} \; y_u^{\; i\, 1p} \right) \; \mathsf{LF}_{2,1,1,-1} \big[ \, \widetilde{\mu} \, , \; \mathsf{m}_2 \, , \; \mathsf{m}_{\bar{q}}^{\; i\, 2} \, \big] \; - \\
                                                                                                                                                                                         \mathsf{m}_2 \, \mathsf{s}_{\scriptscriptstyle Y} \, \widetilde{\mu} \, \mathsf{c}_{\scriptscriptstyle Y} \, \mathsf{g_2}^2 \, \left( \overline{\mathsf{y_d}}^{\mathsf{i}2\mathsf{p}} \, \mathsf{y_d}^{\mathsf{i}1\mathsf{p}} + \overline{\mathsf{y_u}}^{\mathsf{i}2\mathsf{p}} \, \mathsf{y_u}^{\mathsf{i}1\mathsf{p}} \right) \, \mathsf{LF}_{\mathsf{2},\mathsf{1},\mathsf{1},\mathsf{0}} \big[ \widetilde{\mu}, \, \mathsf{m}_2, \, \mathsf{m}_{\tilde{\mathsf{q}}} \big] \, \mathsf{m}_{\mathsf{q}} \, \mathsf{m}_{
                                                                                                                                                                                              g_{2}{}^{2}\,\left(\,c_{\gamma}{}^{2}\,\overline{y_{d}}^{i\,2p}\,\,y_{d}{}^{i\,1p}\,+\,s_{\gamma}{}^{2}\,\overline{y_{u}}^{i\,2p}\,\,y_{u}{}^{i\,1p}\,\right)\,\,LF_{3,1,1,-2}\left[\,\widetilde{\mu}\,,\,m_{2}\,,\,m_{\tilde{q}}\,\right]
                                                                                                                                                                                         \frac{1}{16} \ g_2{}^2 \ S_\gamma{}^2 \ \overline{y_u}{}^{i\,2p} \ y_u{}^{i\,1p} \ \mathsf{LF}_{2,1,1,-1}\big[\tilde{\mu}\,,\, \mathsf{m}_2\,,\, \mathsf{m}_{\tilde{u}}{}^p\big] \ + \ \frac{1}{8} \ g_2{}^2 \ \tilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i\,2p} \ y_u{}^{i\,1p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu}\,,\, \mathsf{m}_2\,,\, \mathsf{m}_{\tilde{u}}{}^p\big] \ + \ \frac{1}{8} \ g_2{}^2 \ \tilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i\,2p} \ y_u{}^{i\,1p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu}\,,\, \mathsf{m}_2\,,\, \mathsf{m}_{\tilde{u}}{}^p\big] \ + \ \frac{1}{8} \ g_2{}^2 \ \tilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i\,2p} \ y_u{}^{i\,2p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu}\,,\, \mathsf{m}_2\,,\, \mathsf{m}_{\tilde{u}}{}^p\big] \ + \ \frac{1}{8} \ g_2{}^2 \ \tilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i\,2p} \ y_u{}^{i\,2p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu}\,,\, \mathsf{m}_2\,,\, \mathsf{m}_{\tilde{u}}{}^p\big] \ + \ \frac{1}{8} \ g_2{}^2 \ \tilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i\,2p} \ y_u{}^{i\,2p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu}\,,\, \mathsf{m}_2\,,\, \mathsf{m}_{\tilde{u}}{}^p\big] \ + \ \frac{1}{8} \ g_2{}^2 \ \tilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i\,2p} \ y_u{}^{i\,2p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu}\,,\, \mathsf{m}_2\,,\, \mathsf{m}_{\tilde{u}}{}^p\big] \ + \ \frac{1}{8} \ g_2{}^2 \ \tilde{\mu}^2 \ c_\gamma{}^2 \ \overline{y_u}{}^{i\,2p} \ y_u{}^{i\,2p} \ \mathsf{LF}_{2,1,1,0}\big[\tilde{\mu}\,,\, \mathsf{m}_2\,,\, \mathsf{m}_{\tilde{u}}{}^p\big] \ + \ \frac{1}{8} \ g_2{}^2 \ \tilde{\mu}^2 \ s_y{}^2 \ s_y{
                                                                                                                                                          \frac{1}{8} \, s_{\gamma} \, \widetilde{\mu} \, \overline{y_{d}}^{12p} \, \overline{y_{u}}^{rs} \, y_{u}^{i1s} \, \left( c_{\gamma} \, a_{d}^{rp} - s_{\gamma} \, \widetilde{\mu} \, y_{d}^{rp} \right) \, \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu} \,, \, \mathsf{m}_{\bar{d}}^{\, p} \,, \, \mathsf{m}_{\bar{q}}^{\, r} \big] \, + \, \frac{1}{8} \, \mathsf{m}_{\bar{d}}^{\, p} \, \mathsf{m}_{\bar{d}}^{\, p} \,, \, \mathsf{m}_{\bar{d}}^{\,
                                                                                                                                                 \textbf{s}_{\gamma}\,\tilde{\boldsymbol{\mu}}\,\,\textbf{y}_{d}^{\,\,\textbf{i1r}}\,\,\overline{\textbf{y}_{u}}^{\,\,\textbf{i2s}}\,\,\textbf{y}_{u}^{\,\,\textbf{ps}}\,\,\left(\textbf{c}_{\gamma}\,\,\overline{\textbf{a}_{d}}^{\,\,\textbf{pr}}\,-\,\textbf{s}_{\gamma}\,\tilde{\boldsymbol{\mu}}\,\,\overline{\textbf{y}_{d}}^{\,\,\textbf{pr}}\right)\,\,\textbf{LF}_{\textbf{2},\textbf{1},\textbf{1},\textbf{0}}\left[\,\tilde{\boldsymbol{\mu}}\,,\,\,\textbf{m}_{\tilde{\textbf{d}}}^{\,\,\,\textbf{r}}\,,\,\,\textbf{m}_{\tilde{\textbf{q}}}^{\,\,\,\textbf{p}}\,\right]\,\,+\,\,
                                                                                                                                                                                              s_{\scriptscriptstyle Y}\,\tilde{\mu}\,\,y_{d}^{\,\,\text{ilr}}\,\,\overline{y_{u}}^{\,\,\text{i2s}}\,\,y_{u}^{\,\,\text{ps}}\,\,\left(-\,c_{\scriptscriptstyle Y}\,\,\overline{a_{d}}^{\,\,\text{pr}}\,+\,s_{\scriptscriptstyle Y}\,\tilde{\mu}\,\,\overline{y_{d}}^{\,\,\text{pr}}\right)\,\,\text{LF}_{3,1,1,-1}\!\left[\tilde{\mu}\,,\,\,m_{\tilde{d}}^{\,\,\,\text{r}}\,,\,\,m_{\tilde{q}}^{\,\,\,\text{p}}\right]\,+\,\,c_{\scriptscriptstyle Y}\,\,\tilde{\mu}\,\,\overline{y_{d}}^{\,\,\text{pr}}
                                                                                                                                                                                         s_{_{Y}}\,\tilde{\mu}\;c_{_{Y}}\,\overline{y_{d}}^{\text{i2s}}\,y_{d}^{\,\text{ps}}\,y_{u}^{\,\text{i1r}}\,\overline{a_{u}}^{\text{pr}}\,\mathsf{LF}_{2,\text{l,1,0}}\big[\tilde{\mu}\,,\,\mathfrak{m}_{\tilde{q}}^{\,\,\text{p}},\,\mathfrak{m}_{\tilde{u}}^{\,\,\text{r}}\big]\;-
                                                                                                                                                                                              s_{\scriptscriptstyle Y}\,\tilde{\mu}\;c_{\scriptscriptstyle Y}\,\overline{y_d}^{\text{i2s}}\,y_d^{\,\text{ps}}\,y_u^{\,\text{i1r}}\,\overline{a_u}^{\text{pr}}\,\mathsf{LF}_{3,1,1,-1}\big[\tilde{\mu}\,,\,\mathsf{m}_{\tilde{q}}^{\,\,\text{p}},\,\mathsf{m}_{\tilde{u}}^{\,\,\text{r}}\big]\;+
                                                                                                                                                                                              \widetilde{\mu} \ c_{\gamma} \ \overline{y_{d}}^{\text{pr}} \ y_{d}^{\text{ilr}} \ \overline{y_{u}}^{\text{i2s}} \ \left( s_{\gamma} \ a_{u}^{\text{ps}} - \widetilde{\mu} \ c_{\gamma} \ y_{u}^{\text{ps}} \right) \ \mathsf{LF}_{2,\text{1,1,0}} \left[ \widetilde{\mu} \text{, } \mathsf{m}_{\tilde{q}}^{\text{ p}} \text{, } \mathsf{m}_{\tilde{u}}^{\text{ s}} \right] \ + \\
                                                                                                                                                                                              \widetilde{\mu} \ c_{\gamma} \ \overline{y_{d}}^{\text{pr}} \ y_{d}^{\text{ilr}} \ \overline{y_{u}}^{\text{i2s}} \ \left( - \, s_{\gamma} \ a_{u}^{\text{ps}} + \widetilde{\mu} \ c_{\gamma} \ y_{u}^{\text{ps}} \right) \ \mathsf{LF}_{3,1,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{m}_{\tilde{q}}^{\text{ p}} \, , \ \mathsf{m}_{\tilde{u}}^{\text{ s}} \big] \ - \\
                                                                                                                                                                                              \tilde{\mu}^2 \; c_{\gamma}^{\; 2} \; \overline{y_d}^{i2p} \; y_d^{\; rp} \; \overline{y_u}^{rs} \; y_u^{\; i1s} \; LF_{2,1,1,0} \left[ \, \tilde{\mu} \, , \; m_{\tilde{q}}^{\; r} \, , \; m_{\tilde{u}}^{\; s} \, \right] \; + \;
                                                                                                                                                                                         \tilde{\mu}^2 \; c_{\gamma}{}^2 \; \overline{y_d}^{i2p} \; y_d{}^{rp} \; \overline{y_u}{}^{rs} \; y_u{}^{i1s} \; LF_{3,1,1,-1} \big[ \tilde{\mu} \text{, } m_{\tilde{q}}{}^r \text{, } m_{\tilde{u}}{}^s \big] \; + \;
                                                                                                                                                     \frac{1}{24} g_1^2 g_2^2 (c_{\gamma}^2 - s_{\gamma}^2) LF_{1,1,1,1,-1}[m_1, m_2, m_{\tilde{q}}^{i2}, \tilde{\mu}] \delta_{i1i2} +
                                                                                                                                                              rac{1}{12} \; \mathsf{m_1} \; \mathsf{m_2} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \left( \mathsf{c_{\gamma}}^2 - \mathsf{s_{\gamma}}^2 \right) \; \mathsf{LF_{1,1,1,1,0}} \left[ \mathsf{m_1, m_2, m_{\tilde{q}}}^{12}, \; \tilde{\mu} \right] \; \delta_{1112} - 1 \; \mathrm{sgn}^2 \; \mathrm
                                                                                                                                                     \frac{1}{48} \ g_{1}{}^{2} \ \overline{y_{d}}{}^{i2p} \ (m_{1} \ c_{\gamma} - s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ a_{d}{}^{i1p} - s_{\gamma} \ \widetilde{\mu} \ y_{d}{}^{i1p}\right) \ LF_{1,1,1,1,0} \left[m_{1}, \ m_{\tilde{d}}^{-p}, \ m_{\tilde{q}}{}^{i1}, \ \widetilde{\mu}\right] - c_{\gamma} \ \widetilde{\mu} \ \widetilde{
                                                                                                                                                                                                           \frac{1}{48} \ g_{1}{}^{2} \ y_{d}{}^{11p} \ (m_{1} \ c_{\gamma} - s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ \overline{a_{d}}{}^{12p} - s_{\gamma} \ \widetilde{\mu} \ \overline{y_{d}}{}^{12p}\right) \ LF_{1,1,1,1,0} \left[m_{1}, \ m_{\tilde{d}}{}^{p}, \ m_{\tilde{q}}{}^{12}, \ \widetilde{\mu}\right] - c_{\gamma} \left[m_{1}, \ m_{\tilde{d}}{}^{12p}, \ m_{\tilde{q}}{}^{12p}, \ m_{\tilde{q}}{}^{12p}\right] \ LF_{1,1,1,1,0} \left[m_{1}, \ m_{\tilde{d}}{}^{p}, \ m_{\tilde{q}}{}^{12p}, \ m_{\tilde{q}}{}^{12p}, \ \widetilde{\mu}\right] - c_{\gamma} \left[m_{1}, \ m_{\tilde{q}}{}^{p}, \ m_{\tilde{q}
                                                                                                                                                     \frac{1}{96} \ g_{1}{}^{2} \ y_{d}{}^{11p} \ (m_{1} \ c_{\gamma} + s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ \overline{a_{d}}{}^{12p} - s_{\gamma} \ \widetilde{\mu} \ \overline{y_{d}}{}^{12p}\right) \ LF_{2,1,1,1,-1} \left[m_{1} \ , \ m_{\tilde{d}}^{-p} \ , \ m_{\tilde{q}}^{-12} \ , \ \widetilde{\mu}\right] + c_{1} \left[m_{1} \ , \ m_{\tilde{d}}^{-p} \ , \ m_{\tilde{q}}^{-12} \ , \ \widetilde{\mu}\right] + c_{1} \left[m_{1} \ , \ m_{\tilde{d}}^{-p} \ , \ m_{\tilde{q}}^{-12} \ , \ \widetilde{\mu}\right] + c_{1} \left[m_{1} \ , \ m_{\tilde{d}}^{-p} \ , \ m_{\tilde{q}}^{-12} \ , \ \widetilde{\mu}\right] + c_{1} \left[m_{1} \ , \ m_{\tilde{d}}^{-p} \ , \ m_{\tilde{q}}^{-p} \
                                                                                                                                                     \frac{1}{48} \ g_{1}{}^{2} \ \overline{y_{u}}^{i2p} \ (m_{1} \ s_{\gamma} - \widetilde{\mu} \ c_{\gamma}) \ \left(s_{\gamma} \ a_{u}{}^{i1p} - \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{i1p}\right) \ \mathsf{LF}_{1,1,1,1,0} \left[m_{1}, \ m_{\widetilde{q}} \right] \ \mathsf{LF}_{1,1,1,1,0} \left[m_{1}, \ m_{1}, \ m_{\widetilde{q}} \right] \ \mathsf{LF}_{1,1,1,1,0} \left[m_{1}, \ m_{1}, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            [^{	exttt{i1}},\,\mathsf{m}_{	ilde{\mathsf{u}}}^{\,\,\mathsf{p}},\,\widetilde{\mu}\,] +
                                                                                                                                                     \frac{1}{96} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{i2p} \ (m_{1} \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma}) \ \left(s_{\gamma} \ a_{u}{}^{i1p} - \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{i1p}\right) \ LF_{2,1,1,1,-1} \big[m_{1}, \ m_{\tilde{q}} \ a_{u}{}^{i1p} + \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{i1p} + \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{i1p} + \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{i1p}
                                                                                                                                                     \frac{1}{96} \ g_1^{\ 2} \ y_u^{\ i1p} \ (m_1 \ s_\gamma + \widetilde{\mu} \ c_\gamma) \ \left(s_\gamma \ \overline{a_u}^{i2p} - \widetilde{\mu} \ c_\gamma \ \overline{y_u}^{i2p}\right) \ LF_{2,1,1,1,-1} \big[m_1, \ m_{\tilde{q}} \ \overline{a_u}^{i2p} + \widetilde{\mu} \ c_\gamma \ \overline{y_u}^{i2p} + \widetilde{\mu} \ c_\gamma \ c_\gamma
                                                                                                                                                     \frac{1}{16} \ g_{2}^{2} \ \overline{y_{d}}^{12p} \ (m_{2} \ c_{\gamma} - s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ a_{d}^{11p} - s_{\gamma} \ \widetilde{\mu} \ y_{d}^{11p}\right) \ LF_{1,1,1,1,0} \left[m_{2} \ , \ m_{\bar{d}}^{-p} \ , \ m_{\bar{q}}^{-p}\right]
                                                                                                                                                     \frac{1}{32} \ g_{2}^{2} \ \overline{y_{d}}^{i2p} \ (m_{2} \ c_{\gamma} + s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ a_{d}^{i1p} - s_{\gamma} \ \widetilde{\mu} \ y_{d}^{i1p}\right) \ \mathsf{LF}_{2,1,1,1,-1} \big[m_{2} \ , \ m_{\tilde{d}}^{-p} \ , \ m_{\tilde{q}}^{-p} \ , \ m_{
                                                                                                                                                     {g_2}^2 \; {y_d}^{\text{ilp}} \; \left( {m_2} \; {c_{_{Y}}} + {s_{_{Y}}} \; \widetilde{\mu} \right) \; \left( {c_{_{Y}}} \; \overline{{a_d}}^{\text{i2p}} - {s_{_{Y}}} \; \widetilde{\mu} \; \overline{{y_d}}^{\text{i2p}} \right) \; \mathsf{LF_{2,1,1,1,-1}} {\left[ {m_2} \, , \; m_{_{\tilde{d}}}^{\; p} \, , \; m_{_{\tilde{q}}}^{\; p} \right]} \; {m_2}^{\; p} \; , \; m_{_{\tilde{q}}}^{\; p} \; , \; m_{_{\tilde{q}}}^{\;
                                                                                                                                                     \frac{1}{16} g_2^2 \overline{y_u}^{i2p} (m_2 s_y)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \widetilde{\mu} \ \textbf{c}_{\gamma}) \ \left( \textbf{s}_{\gamma} \ \textbf{a}_{\textbf{u}}^{\ \textbf{ilp}} - \widetilde{\mu} \ \textbf{c}_{\gamma} \ \textbf{y}_{\textbf{u}}^{\ \textbf{ilp}} \right) \ \textbf{LF}_{\textbf{1,1,1,1,0}} \big[ \ \textbf{m}_{\textbf{2}} \text{,}
                                                                                                                                                     \frac{1}{32} \; g_{2}^{\; 2} \; \overline{y_{u}}^{\dot{1}2p} \; \left( \, m_{2} \; s_{\gamma} + \widetilde{\mu} \; c_{\gamma} \, \right) \; \left( \, s_{\gamma} \; a_{u}^{\; \dot{1}1p} - \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; \dot{1}1p} \right) \; LF_{2,1,1,1,-1} \left[ \, m_{2} \; , \; m_{\bar{q}}^{\; \dot{1}1} \; , \; m_{\bar{u}}^{\; p} \; , \; \widetilde{\mu} \, \right] \; + \; c_{\gamma} \; c_
                                                                                                                                                 \frac{1}{32} \ g_2{}^2 \ y_u{}^{\text{ilp}} \ (\text{m}_2 \ \text{s}_{\scriptscriptstyle Y} + \widetilde{\mu} \ \text{c}_{\scriptscriptstyle Y}) \ \left(\text{s}_{\scriptscriptstyle Y} \ \overline{a_u}{}^{\text{i}2p} - \widetilde{\mu} \ \text{c}_{\scriptscriptstyle Y} \ \overline{y_u}{}^{\text{i}2p}\right) \ \text{LF}_{2,1,1,1,-1} \big[\text{m}_2 \ , \ \text{m}_{\tilde{q}}{}^{\text{i}2} \ , \ \text{m}_{\tilde{u}}{}^p \ , \ \widetilde{\mu} \, \big] + \frac{1}{32} \ \text{constant} \, \left(\text{m}_2 \ , \ \text{s}_{\tilde{q}} \ , \ \text{m}_{\tilde{q}}{}^{\text{i}2} \ , \ \text{m}_{\tilde{q}}{}^{\text{i}2} \ , \ \text{m}_{\tilde{q}}{}^{\text{i}2p} \ , \ \widetilde{\mu} \, \big] + \frac{1}{32} \ \text{constant} \, \left(\text{m}_2 \ , \ \text{m}_{\tilde{q}} \ , \ \text{m}_{\tilde{q}}{}^{\text{i}2} \ , \ \text{m}_{\tilde{q}}{}^{\text{i}2p} \ , \ \widetilde{\mu} \, \right) + \frac{1}{32} \ \text{constant} \, \left(\text{m}_2 \ , \ \text{m}_{\tilde{q}} \ , \ \text{m}_{\tilde{q}}{}^{\text{i}2} \ , \ \text{m}_{\tilde{q}}{}^{\text{i}2p} \ , \ \widetilde{\mu} \, \right) + \frac{1}{32} \ \text{constant} \, \left(\text{m}_2 \ , \ \text{m}_{\tilde{q}} \ , \ \text{m}_{\tilde{q}}{}^{\text{i}2p} \ , \ \text{m}_{\tilde{q}}{}^{\text{i}2p} \ , \ \widetilde{\mu} \, \right) + \frac{1}{32} \ \text{constant} \, \left(\text{m}_2 \ , \ \text{m}_{\tilde{q}} \ , \ \text{m}_{\tilde{q}} \ , \ \text{m}_{\tilde{q}} \ , \ \text{m}_{\tilde{q}} \ , \ \widetilde{\mu} \, \right) + \frac{1}{32} \ \text{constant} \, \left(\text{m}_2 \ , \ \text{m}_{\tilde{q}} \ , \ \text{m}_{\tilde{q}} \ , \ \text{m}_{\tilde{q}} \ , \ \widetilde{\mu}_{\tilde{q}} \ , \ \widetilde{\mu}_{\tilde{
                                                                                                                                                                                                                g_{1}{}^{2}\,\overline{y_{d}}{}^{i2p}\,\left(m_{1}\,c_{\gamma}+s_{\gamma}\,\widetilde{\mu}\right)\,\left(c_{\gamma}\,a_{d}{}^{i1p}-s_{\gamma}\,\widetilde{\mu}\,y_{d}{}^{i1p}\right)\,\mathsf{LF}_{2,1,1,1,-1}\!\left[m_{\widetilde{d}}{}^{p},\,m_{1},\,m_{\widetilde{q}}{}^{i1},\,\widetilde{\mu}\right]-c_{\gamma}\,\widetilde{y}_{d}{}^{i1p}
                                                                                                                                                 \frac{1}{144} \ g_1^2 \ \left( c_{\gamma} \ \overline{a_d}^{i2p} - s_{\gamma} \ \widetilde{\mu} \ \overline{y_d}^{i2p} \right) \ \left( c_{\gamma} \ a_d^{i1p} - s_{\gamma} \ \widetilde{\mu} \ y_d^{i1p} \right) \ \mathsf{LF}_{2,1,1,1,-1} \big[ \ \mathsf{m}_{\tilde{d}}^{-p}, \ \mathsf{m}_1, \ \mathsf{m}_{\tilde{q}}^{-i2}, \ \mathsf{m}_{\tilde{q}}^{-i1} \big] \ + \ \mathsf{m}_{\tilde{q}}^{-1} + \mathsf{m}_
                                                                                                                                                 \frac{1}{96} \ g_{1}{}^{2} \ y_{d}{}^{11p} \ (m_{1} \ c_{\gamma} + s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ \overline{a_{d}}{}^{12p} - s_{\gamma} \ \widetilde{\mu} \ \overline{y_{d}}{}^{12p}\right) \ \mathsf{LF}_{2,1,1,1,-1} \big[m_{\tilde{d}}{}^{p}, \ m_{1}, \ m_{\tilde{q}}{}^{12}, \ \widetilde{\mu}\big] \ - m_{\tilde{d}}{}^{12p} + m_{
                                                                                                                                                     \frac{1}{32} \; g_{2}^{\; 2} \; \overline{y_{d}}^{12p} \; \left( m_{2} \; c_{\gamma} + s_{\gamma} \; \widetilde{\mu} \right) \; \left( c_{\gamma} \; a_{d}^{\; 11p} - s_{\gamma} \; \widetilde{\mu} \; y_{d}^{\; 11p} \right) \; \mathsf{LF}_{2,1,1,1,-1} \big[ \, m_{\bar{d}}^{\; p} \,, \; m_{2} \,, \; m_{\bar{q}}^{\; \bar{1}} \,, \; \widetilde{\mu} \, \big] \; + \; \mathsf{LF}_{2,1,1,1,-1} \big[ \, m_{\bar{d}}^{\; p} \,, \; m_{2} \,, \; m_{\bar{q}}^{\; \bar{1}} \,, \; \widetilde{\mu} \, \big] \; + \; \mathsf{LF}_{2,1,1,1,-1} \big[ \, m_{\bar{d}}^{\; p} \,, \; m_{2} \,, \; m_{\bar{q}}^{\; \bar{1}} \,, \; \widetilde{\mu} \, \big] \; + \; \mathsf{LF}_{2,1,1,1,-1} \big[ \, m_{\bar{d}}^{\; p} \,, \; m_{2} \,, \; m_{\bar{q}}^{\; \bar{1}} \,, \; \widetilde{\mu} \, \big] \; + \; \mathsf{LF}_{2,1,1,1,-1} \big[ \, m_{\bar{d}}^{\; p} \,, \; m_{2} \,, \; m_{\bar{q}}^{\; \bar{1}} \,, \; \widetilde{\mu} \, \big] \; + \; \mathsf{LF}_{2,1,1,1,-1} \big[ \, m_{\bar{d}}^{\; p} \,, \; m_{2} \,, \; m_{\bar{q}}^{\; \bar{1}} \,, \; \widetilde{\mu} \, \big] \; + \; \mathsf{LF}_{2,1,1,1,-1} \big[ \, m_{\bar{d}}^{\; p} \,, \; m_{2} \,, \; m_{\bar{q}}^{\; \bar{1}} \,, \; \widetilde{\mu} \, \big] \; + \; \mathsf{LF}_{2,1,1,1,-1} \big[ \, m_{\bar{d}}^{\; p} \,, \; m_{2} \,, \; m_{\bar{q}}^{\; \bar{1}} \,, \; \widetilde{\mu} \, \big] \; + \; \mathsf{LF}_{2,1,1,1,-1} \big[ \, m_{\bar{d}}^{\; p} \,, \; m_{2} \,, \; m_{\bar{q}}^{\; \bar{1}} \,, \; \widetilde{\mu} \, \big] \; + \; \mathsf{LF}_{2,1,1,1,-1} \big[ \, m_{\bar{d}}^{\; p} \,, \; m_{2} \,, \; m_{2} \,, \; m_{\bar{q}}^{\; \bar{1}} \,, \; \widetilde{\mu} \, \big] \; + \; \mathsf{LF}_{2,1,1,1,1,-1} \big[ \, m_{\bar{d}}^{\; p} \,, \; m_{2} \,, \; m_{2} \,, \; m_{2} \,, \; m_{2} \,, \; \widetilde{\mu} \, \big] \; + \; \mathsf{LF}_{2,1,1,1,1,-1} \big[ \, m_{\bar{d}}^{\; p} \,, \; m_{2} \,, \; m_{2} \,, \; m_{2} \,, \; \widetilde{\mu} \,, \; \widetilde{\mu} \, \big] \; + \; \mathsf{LF}_{2,1,1,1,1,1,-1} \big[ \, m_{\bar{d}}^{\; p} \,, \; m_{2} \,, \; m_{2} \,, \; \widetilde{\mu} \,, \; \widetilde{
                                                                                                                                                     \frac{1}{16} \ g_2^2 \ \left( c_{\gamma} \ \overline{a_d}^{i2p} - s_{\gamma} \ \widetilde{\mu} \ \overline{y_d}^{i2p} \right) \ \left( c_{\gamma} \ a_d^{i1p} - s_{\gamma} \ \widetilde{\mu} \ y_d^{i1p} \right) \ LF_{2,1,1,1,-1} \left[ m_{\tilde{d}}^{-p}, \ m_2, \ m_{\tilde{q}}^{-i2}, \ m_{\tilde{q}}^{-i1} \right] - c_{\gamma} \ m_{\tilde{q}}^{-i1} \ m_{\tilde{q}}^{-i1} \ c_{\gamma} \ m_{\tilde{q}}^{-i1} \ c_{\gamma} \ m_{\tilde{q}
                                                                                                                                                     \frac{1}{32}~g_2^{~2}~y_d^{~i1p}~(m_2~c_{\scriptscriptstyle \Upsilon}+s_{\scriptscriptstyle \Upsilon}~\widetilde{\mu})~\left(c_{\scriptscriptstyle \Upsilon}~\overline{a_d}^{i2p}-s_{\scriptscriptstyle \Upsilon}~\widetilde{\mu}~\overline{y_d}^{i2p}\right)~LF_{2,1,1,1,-1}\big[m_{\bar{d}}^{~p},~m_2,~m_{\bar{q}}^{~i2},~\widetilde{\mu}\big]~-
                                                                                                                                                                                              g_{3}^{2} \left( c_{\gamma} \; \overline{a_{d}}^{i\,2p} - s_{\gamma} \, \widetilde{\mu} \; \overline{y_{d}}^{i\,2p} \right) \; \left( c_{\gamma} \; a_{d}^{\,i\,1p} - s_{\gamma} \, \widetilde{\mu} \; y_{d}^{\,i\,1p} \right) \; LF_{2,1,1,1,-1} \big[ \, m_{\tilde{d}}^{\,\,p} \,, \; m_{3} \,, \; m_{\tilde{q}}^{\,\,i\,2} \,, \; m_{\tilde{q}}^{\,\,i\,1} \, \big] \; - \, m_{\tilde{q}}^{\,\,i\,1} \, m
                                                                                                                                                                                                                g_{1}^{2} \overline{y_{d}}^{i2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) \left( c_{\gamma} a_{d}^{i1p} - s_{\gamma} \widetilde{\mu} y_{d}^{i1p} \right) LF_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{-i1}, m_{1}, m_{\tilde{d}}^{-p}, \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) \left( c_{\gamma} a_{d}^{i1p} - s_{\gamma} \widetilde{\mu} y_{d}^{i1p} \right) LF_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{-i1}, m_{1}, m_{\tilde{d}}^{-p}, \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) \left( c_{\gamma} a_{d}^{i1p} - s_{\gamma} \widetilde{\mu} y_{d}^{i1p} \right) LF_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{-i1}, m_{1}, m_{\tilde{d}}^{-p}, \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) \left( c_{\gamma} a_{d}^{i1p} - s_{\gamma} \widetilde{\mu} y_{d}^{i1p} \right) LF_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{-i1}, m_{1}, m_{\tilde{d}}^{-p}, \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) \left( c_{\gamma} a_{d}^{i1p} - s_{\gamma} \widetilde{\mu} y_{d}^{i1p} \right) LF_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{-i1}, m_{1}, m_{1}, m_{\tilde{d}}^{-p}, \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) \left( c_{\gamma} a_{d}^{i1p} - s_{\gamma} \widetilde{\mu} \right) LF_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{-i1}, m_{1}, m_{1}, m_{1}, m_{1}^{p}, \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) \left( c_{\gamma} a_{d}^{i1p} - s_{\gamma} \widetilde{\mu} \right) LF_{2,1,1,1,-1} \left[ m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) LF_{2,1,1,1,-1} \left[ m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) LF_{2,1,1,1,-1} \left[ m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) LF_{2,1,1,1,-1} \left[ m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) LF_{2,1,1,1,-1} \left[ m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) LF_{2,1,1,1,-1} \left[ m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) LF_{2,1,1,1} \left[ m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) LF_{2,1,1} \left[ m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) LF_{2,1} \left[ m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) LF_{2,1} \left[ m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) LF_{2,1} \left[ m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right] + c_{1}^{2p} \left( m_{1} c_{\gamma} + s_{\gamma} \widetilde{\mu} \right) LF_{2,1} \left[ m_{1} c_{\gamma} + 
                                                                                                                                                                                                                g_1^2 \, \overline{y_u^{\text{i2p}}} \, \left( \, \mathsf{m_1} \, \, \mathsf{s_{\scriptscriptstyle Y}} + \widetilde{\mu} \, \, \mathsf{c_{\scriptscriptstyle Y}} \right) \, \left( \, \mathsf{s_{\scriptscriptstyle Y}} \, \, \mathsf{a_u^{\text{i1p}}} - \widetilde{\mu} \, \, \mathsf{c_{\scriptscriptstyle Y}} \, \, \mathsf{y_u^{\text{i1p}}} \right) \, \mathsf{LF_{2,1,1,1,-1}} \big[ \, \mathsf{m_{\tilde{q}}^{\text{i1}}} \, , \, \, \mathsf{m_1} \, , \, \, \mathsf{m_{\tilde{u}}^{\text{p}}} \, , \, \, \widetilde{\mu} \, \big] \, + \, \mathsf{m_{\tilde{u}}^{\text{i2p}}} \, , \, \mathsf{m_1} \, , \, \mathsf{m_2^{\text{i2p}}} \, , \, \mathsf{m_2^{\text{i2p}}} \, , \, \mathsf{m_3^{\text{i2p}}} \, , \, \mathsf{m_3^{\text{i2p}}}
                                                                                                                                                                                                                g_{2}{}^{2}\,\overline{y_{d}}{}^{i\,2p}\,\left(m_{2}\,\,c_{\gamma}+s_{\gamma}\,\widetilde{\mu}\right)\,\left(c_{\gamma}\,\,a_{d}{}^{i\,1p}-s_{\gamma}\,\widetilde{\mu}\,\,y_{d}{}^{i\,1p}\right)\,\,\mathsf{LF}_{2,1,1,1,-1}\!\left[m_{\tilde{q}}{}^{i\,1},\,m_{2},\,m_{\tilde{d}}{}^{p},\,\widetilde{\mu}\right]\,+\,\,c_{1}\,\left(m_{1}\,m_{1}\,m_{2}\,m_{1}\,m_{2}\,m_{1}\,m_{2}\,m_{1}\,m_{2}\,m_{1}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2
                                                                                                                                                                                                                \frac{1}{96} \ g_{1}^{\ 2} \ y_{d}^{\ 11p} \ (m_{1} \ c_{\gamma} + s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ \overline{a_{d}}^{\ 12p} - s_{\gamma} \ \widetilde{\mu} \ \overline{y_{d}}^{\ 12p}\right) \ LF_{2,1,1,1,-1} \big[m_{\bar{q}}^{\ 12}, \ m_{1}, \ m_{\bar{d}}^{\ p}, \ \widetilde{\mu}\big] + \frac{1}{96} \ g_{1}^{\ 2} \ y_{d}^{\ 12p} + \frac{1}{96} \ g_{1}^{\ 2} \ y_{d}^{\ 12p} + \frac{1}{96} \ g_{1}^{\ 2p} \ g_{1}^{\ 2p} + \frac{1}{96} \ g_{1}^{\ 2p} \ g_{1}^{\ 2p} + \frac{1}{96} \ g_{1}^{\ 2p} + \frac{1}
                                                                                                                                                                                                                g_{1}^{2} y_{u}^{i1p} \left( m_{1} s_{\gamma} + \widetilde{\mu} c_{\gamma} \right) \left( s_{\gamma} \overline{a_{u}}^{i2p} - \widetilde{\mu} c_{\gamma} \overline{y_{u}}^{i2p} \right) LF_{2,1,1,1,-1} \left[ m_{\tilde{q}}^{-i2}, m_{1}, m_{\tilde{u}}^{-p}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}^{-i2}, m_{1}, m_{\tilde{u}}^{-p}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}^{-i2p}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}^{-i2p}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}^{-i2p}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}^{-i2p}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}^{-i2p}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}^{-i2p}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}^{-i2p}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1}, m_{1}, m_{1}, m_{1}, m_{1}, \widetilde{\mu} \right] + C \left[ m_{\tilde{q}}, m_{1},
                                                                                                                                                     \frac{1}{32}~g_2^2~y_d^{\textrm{ilp}}~(\textrm{m}_2~\textrm{c}_{\textrm{Y}}+\textrm{s}_{\textrm{Y}}~\widetilde{\mu})~\left(\textrm{c}_{\textrm{Y}}~\overline{\textrm{a}_d}^{\textrm{i}2p}-\textrm{s}_{\textrm{Y}}~\widetilde{\mu}~\overline{y_d}^{\textrm{i}2p}\right)~\textrm{LF}_{\textrm{2,1,1,1,-1}}\left[\textrm{m}_{\tilde{\textrm{q}}}^{\textrm{i}2},~\textrm{m}_{\textrm{2}},~\textrm{m}_{\tilde{\textrm{d}}}^{\textrm{p}},~\widetilde{\mu}\right]~+
                                                                                                                                                                                                                     g_2^2 \; y_u^{\text{ilp}} \; \left( \text{m}_2 \; \text{s}_{\text{Y}} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{s}_{\text{Y}} \; \overline{\text{a}_u}^{\text{i}2p} - \widetilde{\mu} \; \text{c}_{\text{Y}} \; \overline{\text{y}_u}^{\text{i}2p} \right) \; \text{LF}_{\text{2,1,1,1,-1}} \big[ \text{m}_{\tilde{q}}^{\; \text{i}2} \text{, m}_2 \text{, m}_{\tilde{u}}^{\; \text{p}} \text{, } \widetilde{\mu} \big] \; - \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \text{LF}_{\text{2,1,1,1,-1}} \left[ \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right] \; - \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \; \left( \text{m}_{\tilde{q}}^{\; \text{i}2p} + \widetilde{\mu} \; \text{c}_{\text{Y}} \right) \;
                                                                                                                                                     32
                                                                                                                                                                                                                     g_{1}{}^{2}\;\overline{y_{u}}{}^{12p}\;\left(m_{1}\;s_{\gamma}+\widetilde{\mu}\;c_{\gamma}\right)\;\left(s_{\gamma}\;a_{u}{}^{11p}-\widetilde{\mu}\;c_{\gamma}\;y_{u}{}^{11p}\right)\;\mathsf{LF}_{2,1,1,1,-1}\!\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]-\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]+\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]+\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]+\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]+\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]+\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]+\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]+\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]+\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]+\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]+\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]+\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]+\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{\tilde{q}}{}^{11},\;\widetilde{\mu}\right]+\frac{1}{2}\left[m_{\tilde{u}}{}^{p},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1},\;m_{1}
                                                                                                                                                 \frac{1}{144}~g_{1}^{2}~\left(s_{\gamma}~\overline{a_{u}}^{i\,2p}-\widetilde{\mu}~c_{\gamma}~\overline{y_{u}}^{i\,2p}\right)~\left(s_{\gamma}~a_{u}^{i\,1p}-\widetilde{\mu}~c_{\gamma}~y_{u}^{i\,1p}\right)~\mathsf{LF}_{2,1,1,1,-1}\!\left[\mathsf{m}_{\tilde{u}}^{\phantom{\tilde{u}}p},~\mathsf{m}_{1}^{\phantom{\tilde{u}},}~\mathsf{m}_{\tilde{q}}^{\phantom{\tilde{u}}^{1}}\right]~-
                                                                                                                                                 \frac{1}{96} \ g_{1}^{\ 2} \ y_{u}^{\ i1p} \ (m_{1} \ s_{\gamma} + \widetilde{\mu} \ c_{\gamma}) \ \left(s_{\gamma} \ \overline{a_{u}}^{i2p} - \widetilde{\mu} \ c_{\gamma} \ \overline{y_{u}}^{i2p}\right) \ LF_{2,1,1,1,-1} \left[m_{\tilde{u}}^{\ p}, \ m_{1}, \ m_{\tilde{q}}^{\ i2}, \ \widetilde{\mu}\right] - \widetilde{\mu} \ c_{\gamma} \ \overline{y_{u}}^{i2p} + \widetilde{\mu} \ c_{\gamma}
                                                                                                                                                 \frac{1}{32} \ g_2{}^2 \ \overline{y_u}^{i\, 2p} \ (m_2 \ s_\gamma + \widetilde{\mu} \ c_\gamma) \ \left(s_\gamma \ a_u{}^{i\, 1p} - \widetilde{\mu} \ c_\gamma \ y_u{}^{i\, 1p}\right) \ \mathsf{LF}_{2,1,1,1,-1} \big[m_{\tilde{u}}{}^p \text{, } m_2 \text{, } m_{\tilde{q}} 
                                                                                                                                                 g_{2}^{2}\;y_{u}^{\;i\,1p}\;\left(\text{m}_{2}\;s_{\gamma}+\widetilde{\mu}\;c_{\gamma}\right)\;\left(s_{\gamma}\;\overline{a_{u}}^{\;i\,2p}-\widetilde{\mu}\;c_{\gamma}\;\overline{y_{u}}^{\;i\,2p}\right)\;\text{LF}_{2,1,1,1,-1}\!\left[\text{m}_{\tilde{u}}^{\;p}\,,\;\text{m}_{2}\,,\;\text{m}_{\tilde{q}}^{\;i\,2}\,,\;\widetilde{\mu}\right]-\frac{1}{2}\left[m_{\tilde{u}}^{\;p}+\widetilde{\mu}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{\tilde{q}}^{\;p}+m_{
                                                                                                                                                                                              g_3^2 \left( \mathsf{s}_{\scriptscriptstyle Y} \; \overline{\mathsf{a}_{\mathsf{u}}}^{\mathsf{i}\,\mathsf{2p}} - \widetilde{\mu} \; \mathsf{c}_{\scriptscriptstyle Y} \; \overline{\mathsf{y}_{\mathsf{u}}}^{\mathsf{i}\,\mathsf{2p}} \right) \; \left( \mathsf{s}_{\scriptscriptstyle Y} \; \mathsf{a}_{\mathsf{u}}^{\;\;\mathsf{i}\,\mathsf{1p}} - \widetilde{\mu} \; \mathsf{c}_{\scriptscriptstyle Y} \; \mathsf{y}_{\mathsf{u}}^{\;\;\mathsf{i}\,\mathsf{1p}} \right) \; \mathsf{LF}_{\mathsf{2},\mathsf{1},\mathsf{1},\mathsf{1},\mathsf{-1}} \left[ \mathsf{m}_{\check{\mathsf{u}}}^{\;\;\mathsf{p}} \; , \; \mathsf{m}_{\check{\mathsf{q}}} \; , \; \mathsf{m}_{\check{\mathsf{q}}}^{\;\;\mathsf{i}\,\mathsf{1}} \right] \; + \; \mathsf{m}_{\check{\mathsf{q}}}^{\;\;\mathsf{p}} \; \mathsf{m}_{\mathsf{q}}^{\;\;\mathsf{p}} \; \mathsf{m}_{\mathsf{q}}^{\;\;\mathsf{q}} \; \mathsf{m}_{\mathsf{q}}^{\;\;\mathsf{p}} \; \mathsf{m}_{\mathsf{q}}^{\;\;\mathsf{q}} \; \mathsf{m}_{\mathsf{q}}^{\;\;\mathsf{p}} \; \mathsf{m}_{\mathsf{q}}^{\;\;\mathsf{q}} \; \mathsf{m}_{\mathsf{q}}
                                                                                                                                                                                                                g_1^2 g_2^2 \left( c_{\gamma}^2 - s_{\gamma}^2 \right) LF_{2,1,1,1,-2} \left[ \widetilde{\mu}, m_1, m_2, m_{\widetilde{q}}^{-i2} \right] \delta_{i1i2} +
                                                                                                                                                                                                           \mathsf{m_1} \; \mathsf{m_2} \; \mathsf{g_1}^2 \; \mathsf{g_2}^2 \; \left( - \, \mathsf{c_{\scriptscriptstyle Y}}^2 + \, \mathsf{s_{\scriptscriptstyle Y}}^2 \right) \; \mathsf{LF_{2,1,1,1,-1}} \big[ \, \tilde{\mu} \, , \, \, \mathsf{m_1} \, , \, \, \mathsf{m_2} \, , \, \, \mathsf{m_{\bar{q}}}^{\mathsf{i} \, \mathsf{2}} \big] \; \delta_{\mathsf{i} \, \mathsf{1} \, \mathsf{i} \, \mathsf{2}} \; + \, \delta_{\mathsf{i} \, \mathsf{1}} \, , \, \, \mathsf{i}_{\mathsf{1}} \, , \, \, \mathsf{i}_{\mathsf{2}} \, , \, \, \mathsf{i}_{\mathsf{3}} \, , \, \, \, \mathsf{i}_{\mathsf{3}} \, , \, \, \mathsf{
                                                                                                                                                     \frac{1}{96} \ g_{1}{}^{2} \ \overline{y_{d}}{}^{i2p} \ (m_{1} \ c_{\gamma} + s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ a_{d}{}^{i1p} - s_{\gamma} \ \widetilde{\mu} \ y_{d}{}^{i1p}\right) \ LF_{2,1,1,1,-1}\big[\widetilde{\mu} \ , \ m_{1} \ , \ m_{\bar{d}}{}^{p} \ , \ m_{\bar{q}}{}^{i1}\big] + c_{2,1,1,1,-1} \left[\widetilde{\mu} \ , \ m_{1} \ , \ m_{\bar{d}}{}^{p} \ , \ m_{\bar{q}}{}^{i1}\right] + c_{2,1,1,1,-1} \left[\widetilde{\mu} \ , \ m_{1} \ , \ m_{\bar{d}}{}^{p} \ , \ m_{\bar{q}}{}^{i1}\right] + c_{2,1,1,1,-1} \left[\widetilde{\mu} \ , \ m_{1} \ , \ m_{\bar{d}}{}^{p} \ , \ m_{\bar{q}}{}^{i1}\right] + c_{2,1,1,1,-1} \left[\widetilde{\mu} \ , \ m_{1} \ , \ m_{\bar{d}}{}^{p} \ , \ m_{\bar{q}}{}^{i1}\right] + c_{2,1,1,1,-1} \left[\widetilde{\mu} \ , \ m_{1} \ , \ m_{1} \ , \ m_{\bar{d}}{}^{p} \ , \ m_{\bar{q}}{}^{i1}\right] + c_{2,1,1,1,-1} \left[\widetilde{\mu} \ , \ m_{1} \ , \ m_{2,1} \ 
                                                                                                                                                 \frac{1}{96} \ g_{1}{}^{2} \ y_{d}{}^{i1p} \ (m_{1} \ c_{\gamma} + s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ \overline{a_{d}}{}^{i2p} - s_{\gamma} \ \widetilde{\mu} \ \overline{y_{d}}{}^{i2p}\right) \ \mathsf{LF}_{2,1,1,1,-1} \big[\widetilde{\mu} \,, \ m_{1} \,, \ m_{\bar{d}}{}^{p} \,, \ m_{\bar{q}}{}^{i2}\big] \ - c_{2} \ m_{1} \ m_{1} \ m_{2} \ m_{2}
                                                                                                                                                 \frac{1}{96}~g_{1}^{2}~\overline{y_{u}}^{\text{i2p}}~(\text{m}_{1}~s_{\gamma}+\widetilde{\mu}~c_{\gamma})~\left(s_{\gamma}~a_{u}^{\text{i1p}}-\widetilde{\mu}~c_{\gamma}~y_{u}^{\text{i1p}}\right)~\text{LF}_{2,1,1,1,-1}\big[\widetilde{\mu}\text{, m}_{1}\text{, m}_{\tilde{q}}^{\text{i1}}\text{, m}_{\tilde{u}}^{\text{p}}\big]~-
                                                                                                                                                                                                                     g_{1}^{2}\;y_{u}^{\;i1p}\;\left(\textbf{m}_{1}\;\textbf{s}_{\gamma}+\widetilde{\mu}\;\textbf{c}_{\gamma}\right)\;\left(\textbf{s}_{\gamma}\;\overline{\textbf{a}_{u}}^{i2p}-\widetilde{\mu}\;\textbf{c}_{\gamma}\;\overline{\textbf{y}_{u}}^{i2p}\right)\;\textbf{LF}_{2,1,1,1,-1}\big[\widetilde{\mu}\,,\,\textbf{m}_{1}\,,\,\textbf{m}_{q}^{\;\;i2}\,,\,\textbf{m}_{u}^{\;\;p}\big]\;-\widetilde{\textbf{m}}_{1}^{\;\;2p}
                                                                                                                                                     \frac{1}{32} \ g_{2}^{2} \ \overline{y_{d}}^{12p} \ (m_{2} \ c_{\gamma} + s_{\gamma} \ \widetilde{\mu}) \ \left(c_{\gamma} \ a_{d}^{\ i1p} - s_{\gamma} \ \widetilde{\mu} \ y_{d}^{\ i1p}\right) \ LF_{2,1,1,1,-1} \big[\widetilde{\mu} \ , \ m_{2} \ , \ m_{\tilde{d}}^{\ p} \ , \ m_{\tilde{q}}^{\ i1}\big] \ - c_{\tilde{q}} \ m_{\tilde{q}}^{\ i1} + c
                                                                                                                                                                                                                     g_{2}{}^{2}\;y_{d}{}^{\text{ilp}}\;\left(\text{m}_{2}\;c_{\gamma}+s_{\gamma}\;\widetilde{\mu}\right)\;\left(c_{\gamma}\;\overline{a_{d}}{}^{\text{i}2p}-s_{\gamma}\;\widetilde{\mu}\;\overline{y_{d}}{}^{\text{i}2p}\right)\;\text{LF}_{2,\text{1,1,1,-1}}\!\left[\widetilde{\mu}\,,\;\text{m}_{2}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text{m}_{\bar{d}}^{-p}\,,\;\text
                                                                                                                                                                                                                     g_{2}^{2} \, \overline{y_{u}}^{12p} \, \left( \, m_{2} \, \, s_{\gamma} \, + \, \widetilde{\mu} \, \, c_{\gamma} \, \right) \, \left( \, s_{\gamma} \, \, a_{u}^{\, \, 11p} \, - \, \widetilde{\mu} \, \, c_{\gamma} \, \, y_{u}^{\, \, \, 11p} \right) \, LF_{2,1,1,1,-1} \big[ \, \widetilde{\mu} \, , \, \, m_{2} \, , \, \, m_{\tilde{q}}^{\, \, \, \tilde{1}1} \, , \, \, m_{\tilde{u}}^{\, \, \, p} \, \big] \, - \, \widetilde{\mu} \, \, c_{\gamma} \, \, y_{u}^{\, \, \, \, 11p} \, + \, \widetilde{\mu} \, \, c_{\gamma} \, \, y_{u}^{\, \, \, \, 11p} \, \big[ \, \widetilde{\mu} \, , \, \, m_{2} \, , \, \, m_{\tilde{q}}^{\, \, \, \tilde{1}1} \, , \, \, m_{\tilde{u}}^{\, \, \, \tilde{p}} \, \big] \, - \, \widetilde{\mu} \, \, c_{\gamma} \, \, y_{u}^{\, \, \, \, 11p} \, + \, \widetilde{\mu} \, \, c_{\gamma} \, \, y_{u}^{\, \, \, \, 11p} \, \big[ \, \widetilde{\mu} \, , \, \, m_{2} \, , \, \, m_{\tilde{q}}^{\, \, \, \, \tilde{q}} \, , \, \, m_{\tilde{q}}^{\, \, \, \tilde{q}} \, \big] \, - \, \widetilde{\mu} \, \, c_{\gamma} \, \, y_{u}^{\, \, \, \, 11p} \, + \, \widetilde{\mu} \, \, c_{\gamma} \, \, y_{u}^{\, \, \, \, 11p} \, \big[ \, \widetilde{\mu} \, , \, \, m_{2} \, , \, \, m_{\tilde{q}}^{\, \, \, \, \tilde{q}} \, , \, \, m_{\tilde{q}}^{\, \, \, \tilde{q}} \, \big] \, - \, \widetilde{\mu} \, \, c_{\gamma} \, \, y_{u}^{\, \, \, \tilde{q}} \, \, \, c_{\gamma} \, \, y_{u}^{\, \, \, \tilde{q}} \, \, \, \, c_{\gamma} \, \, y_{u}^{\, \, \, \tilde{q}} \, \, \, c_{\gamma} \, \, \, c_{\gamma} \, \, \, c_{\gamma} \, \, 
                                                                                                                                                                                                                g_{2}^{2} y_{u}^{\text{ilp}} \ (\text{m}_{2} \ \text{s}_{\text{Y}} + \widetilde{\mu} \ \text{c}_{\text{Y}}) \ \left(\text{s}_{\text{Y}} \ \overline{a_{u}}^{\text{i2p}} - \widetilde{\mu} \ \text{c}_{\text{Y}} \ \overline{y_{u}}^{\text{i2p}}\right) \ \text{LF}_{2,1,1,1,-1} \left[\widetilde{\mu} \text{, m}_{2} \text{, m}_{\tilde{q}}^{\text{i2}} \text{, m}_{\tilde{u}}^{\text{p}}\right] \right)
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