```
C_{qu}^{(1)\,\text{il\_i2\_i3\_i4}} \to -\, \tfrac{1}{6} \,\, \tfrac{1}{m_\text{e}^2} \,\, c_\gamma^2 \,\, \overline{y_u}^{\text{i2i3}} \,\, y_u^{\,\,\text{ili4}} \, + \, \tilde{h} \, \left( \tfrac{1}{1296} \,\, \tfrac{1}{m_\text{e}^2} \,\, \left( 27 \,\, c_\gamma^2 \,\, \overline{y_d}^{\text{pr}} \,\, y_d^{\,\,\text{ilr}} \,\, \overline{y_u}^{\,\,\text{i2i3}} \,\, y_u^{\,\,\text{pi4}} \,\, \left( -\, 1 \, + \, s_\gamma^{\,\,2} \right) \, - \, \frac{1}{3} \,\, \frac{1}{3} \,\, \frac{1}{3} \,\, \left( -\, \frac{1}{3} \,\, \frac{1}{3}
                                                                                                                                                                                                                                                   c_{\gamma}^{2} \, \left(81 \, \left(4 \, s_{\gamma}^{2} \, \overline{y_{u}}^{\text{ri3}} \, y_{u}^{\text{ri4}} \, \left(\overline{y_{d}}^{\text{i2p}} \, y_{d}^{\text{i1p}} + 3 \, \overline{y_{u}}^{\text{i2p}} \, y_{u}^{\text{i1p}}\right) \right. \\ \left. + \, \overline{y_{u}}^{\text{pr}} \, \overline{y_{u}}^{\text{i2i3}} \, y_{u}^{\text{pi4}} \, y_{u}^{\text{i1r}} \, \left(1 + c_{\gamma}^{\, 2}\right)\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right) \right] + \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right) \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right) \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right) \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right) \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right) \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right) \right] \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right) \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right) \right] \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \right] \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \right] \right] \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \right] \right] \right] \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \right] \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \right] \right. \\ \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \right] \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c_{\gamma}^{\, 2}\right)\right] \right] \left. \left(1 + c_{\gamma}^{\, 2}\right) + \left. \left(1 + c
                                                                                                                                                                                                                                                                                                                                                             3\; y_u^{\;i1i4}\; \left(4\; \overline{y_u}^{i2i3}\; \left(23\; {g_1}^2 + 27\; {g_2}^2 + 168\; {g_3}^2 - 54\; s_{\gamma}^2\; \overline{y_u}^{pr}\; y_u^{\;pr}\right)\; + \\
                                                                                                                                                                                                                                                                                                                                                                                                                                                              9\;\overline{y_{u}}^{\text{ri3}}\;\left(-\;\overline{y_{d}}^{\text{i}\,2p}\;y_{d}^{\text{rp}}\;\left(-\;1\;+\;s_{\gamma}^{\;2}\right)\;+\;3\;\overline{y_{u}}^{\text{i}\,2p}\;y_{u}^{\text{rp}}\;\left(1\;+\;c_{\gamma}^{\;2}\right)\;\right)\;+\;14\;g_{1}^{\;2}\;\overline{y_{u}}^{\text{pi3}}\;y_{u}^{\;\text{pi4}}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2}\;\overline{y_{u}}^{\text{pi3}}\;y_{u}^{\;\text{pi4}}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2}\;\overline{y_{u}}^{\text{pi3}}\;y_{u}^{\;\text{pi4}}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2}\;\overline{y_{u}}^{\text{pi3}}\;y_{u}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2}\;\overline{y_{u}}^{\text{pi3}}\;y_{u}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2}\;\overline{y_{u}}^{\text{pi3}}\;y_{u}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2}\;\overline{y_{u}}^{\text{pi3}}\;y_{u}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2}\;\overline{y_{u}}^{\text{pi3}}\;y_{u}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2}\;\overline{y_{u}}^{\text{pi3}}\;y_{u}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2}\;\overline{y_{u}}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2}\;\overline{y_{u}}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2}\;\overline{y_{u}}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili2}}\right)\;+\;14\;g_{1}^{\;2p}\;\mathcal{S}_{\text{ili
                                                                                                                                                                                                                                                       4\;g_{1}^{\;2}\;\left(5\;s_{\gamma}^{\;2}\;\overline{y_{d}}^{i2p}\;y_{d}^{\;i1p}-13\;c_{\gamma}^{\;2}\;\overline{y_{u}}^{i2p}\;y_{u}^{\;i1p}\right)\;\delta_{i3i4}\right)\\ -\frac{1}{12}\;\sum_{p}c_{\gamma}\;g_{1}^{\;2}\;\frac{1}{m_{0}^{\;4}}\;\overline{y_{u}}^{i2i3}
                                                                                                                                                                                  {y_u}^{\text{ili4}} \ (c_{2\,\gamma} \ c_{\gamma} - 2 \ s_{2\,\gamma} \ s_{\gamma}) \ \mathsf{LF_{1,0}} \big[ \ m_{\bar{d}}^{-p} \big] \ + \ \frac{4}{243} \ \sum_{p} \ g_{1}^{\ 4} \ \mathsf{LF_{3,0}} \big[ \ m_{\bar{d}}^{-p} \big] \ \delta_{\text{ili2}} \ \delta_{\text{i3i4}} - c_{1} \ \delta_{\text{i3i4}} \ - c_{1} \ \delta_{\text{i3i4}} \ \delta_{\text{i3i4}} \ \delta_{\text{i3i4}} \ - c_{1} \ \delta_{\text{i3i4}} \ \delta_{\text{i3i4}} \ - c_{1} \ \delta_{\text{i3i4}} \ \delta_{\text{i
                                                                                                                                                          \frac{5}{162} \sum_{p} g_{1}^{4} LF_{4,-1}[m_{\dot{d}}^{p}] \delta_{i1i2} \delta_{i3i4} +
                                                                                                                                                          \frac{_{16}}{_{1215}}\sum_{p}g_{1}{}^{4} LF<sub>5,-2</sub>\left[m_{d}^{^{^{p}}}\right] \delta_{i1i2} \delta_{i3i4} -
                                                                                                                                                          \frac{1}{2} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{0}^{4}} \; \overline{y_{d}}^{pr} \; y_{d}^{pr} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; - \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; + \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; + \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; + \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; + \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; + \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right] \; + \left( s_{2\,\gamma} + s_{\gamma} \; c_{\gamma} \right) \; LF_{1,0} \left[ m_{\tilde{d}}^{\tilde{r}} \right]
                                                                                                                                                          \frac{1}{12} \, \sum_{p} \, c_{\gamma} \, g_{1}^{\, 2} \, \frac{1}{m_{o}^{\, 4}} \, \overline{y_{u}}^{i2i3} \, y_{u}^{\, i1i4} \, \left( \, c_{2 \, \gamma} \, \, c_{\gamma} \, - 2 \, \, s_{2 \, \gamma} \, \, s_{\gamma} \right) \, \, LF_{1,0} \left[ \, m_{e}^{\, -p} \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \, \, \right] \, + \, \left[ \, m_{e}^{\, -p} \,
                                                                                                                                                          \frac{4}{81} \sum_{\mathbf{p}} \mathbf{g_1}^4 \, \mathsf{LF_{3,0}} \left[ \mathbf{m_{\tilde{\mathbf{e}}}}^{\, \mathbf{p}} \right] \, \delta_{\mathsf{ili2}} \, \delta_{\mathsf{i3i4}} \, - \,
                                                                                                                                                              \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{_{0}}{^{4}}} \; \overline{y_{e}}^{pr} \; y_{e}{^{pr}} \; \overline{y_{u}}^{i2i3} \; y_{u}{^{i1i4}} \; \left(s_{2\,\gamma} + s_{\gamma} \; c_{\gamma}\right) \; LF_{1,0} \left[m_{\tilde{e}}{^{r}}\right] \; + \; c_{\gamma} \; c
                                                                                                                                                          \frac{1}{12} \; c_{\gamma} \; \frac{1}{m_{0}^{4}} \; \overline{y_{u}}^{\text{i2i3}} \; y_{u}^{\text{i1i4}} \; \left(-2 \; s_{\gamma} \; \overline{y_{e}}^{\text{pr}} \; y_{e}^{\text{pr}} \; (s_{2 \, \gamma} + s_{\gamma} \; c_{\gamma}) \right. \\ \left. + \sum_{p} g_{1}^{2} \; \left(c_{2 \, \gamma} \; c_{\gamma} - 2 \; s_{2 \, \gamma} \; s_{\gamma}\right) \right) \; LF_{1,0} \left[m_{\widetilde{l}}^{\; p}\right] + \left(-2 \; s_{\gamma} \; \overline{y_{e}}^{\text{pr}} \; y_{e}^{\text{pr}} \; (s_{2 \, \gamma} + s_{\gamma} \; c_{\gamma}) \right. \\ \left. + \sum_{p} g_{1}^{2} \; \left(c_{2 \, \gamma} \; c_{\gamma} - 2 \; s_{2 \, \gamma} \; s_{\gamma}\right) \right) \; LF_{1,0} \left[m_{\widetilde{l}}^{\; p}\right] + \left(-2 \; s_{\gamma} \; \overline{y_{e}}^{\text{pr}} \; y_{e}^{\text{pr}} \; s_{\gamma}\right) \\ \left. + \sum_{p} g_{1}^{2} \; \left(c_{2 \, \gamma} \; c_{\gamma} - 2 \; s_{2 \, \gamma} \; s_{\gamma}\right) \right] \; LF_{1,0} \left[m_{\widetilde{l}}^{\; p}\right] + \left(-2 \; s_{\gamma} \; \overline{y_{e}}^{\text{pr}} \; y_{e}^{\text{pr}} \; s_{\gamma}\right) \\ \left. + \sum_{p} g_{1}^{2} \; \left(c_{2 \, \gamma} \; c_{\gamma} - 2 \; s_{2 \, \gamma} \; s_{\gamma}\right) \right] \; LF_{1,0} \left[m_{\widetilde{l}}^{\; p}\right] \; ds_{\gamma} 
                                                                                                                                                          \frac{2}{81} \, \sum_{p} \, {g_{1}}^{4} \, \mathsf{LF}_{3,0} \left[ \, \mathsf{m}_{\bar{1}}^{\, \, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, - \, \frac{5}{108} \, \sum_{p} \, {g_{1}}^{4} \, \mathsf{LF}_{4,-1} \left[ \, \mathsf{m}_{\bar{1}}^{\, \, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{108} \, \sum_{p} \, {g_{1}}^{4} \, \mathsf{LF}_{4,-1} \left[ \, \mathsf{m}_{\bar{1}}^{\, \, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{108} \, \sum_{p} \, {g_{1}}^{4} \, \mathsf{LF}_{4,-1} \left[ \, \mathsf{m}_{\bar{1}}^{\, \, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{108} \, \sum_{p} \, {g_{1}}^{4} \, \mathsf{LF}_{4,-1} \left[ \, \mathsf{m}_{\bar{1}}^{\, \, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{108} \, \sum_{p} \, {g_{1}}^{4} \, \mathsf{LF}_{4,-1} \left[ \, \mathsf{m}_{\bar{1}}^{\, \, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{108} \, \sum_{p} \, {g_{1}}^{4} \, \mathsf{LF}_{4,-1} \left[ \, \mathsf{m}_{\bar{1}}^{\, \, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{108} \, \sum_{p} \, {g_{1}}^{4} \, \mathsf{LF}_{4,-1} \left[ \, \mathsf{m}_{\bar{1}}^{\, \, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{108} \, \sum_{p} \, {g_{1}}^{4} \, \mathsf{LF}_{4,-1} \left[ \, \mathsf{m}_{\bar{1}}^{\, \, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{4}} \, + \, \frac{1}{108} \, \sum_{p} \, {g_{1}}^{4} \, \mathsf{LF}_{4,-1} \left[ \, \mathsf{m}_{\bar{1}}^{\, \, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{4}} \, + \, \frac{1}{108} \, \sum_{p} \, {g_{1}}^{2} \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{1}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{4}} \, + \, \frac{1}{108} \, \sum_{p} \, {g_{1}}^{2} \, \delta_{\dot{1}\dot{1}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{1}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{4}} \, + \, \frac{1}{108} \, \delta_{\dot{1}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{2}\dot{2}
                                                                                                                                                              \frac{8}{405} \, \sum_{p} \, {\rm g_1}^4 \, \, {\rm LF_{5,-2}} \left[ \, {\rm m_{\tilde{l}}}^{\, p} \, \right] \, \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, \, \delta_{\dot{1}3\dot{1}4} \, - \, \frac{1}{12} \, \, \, c_{\gamma} \, \, \frac{1}{m_{\rm s}^4} \, \, \overline{{\rm y_u}}^{\dot{1}\dot{2}\dot{1}\dot{3}} \, \, {\rm y_u}^{\dot{1}\dot{1}\dot{1}\dot{4}}
                                                                                                                                                                                          \left(6\; s_{\gamma}\; \overline{y_{d}}^{pr}\; y_{d}^{\;pr}\; \left(s_{2\;\gamma}+s_{\gamma}\; c_{\gamma}\right)\; + \; 6\; \overline{y_{u}}^{pr}\; y_{u}^{\;pr}\; \left(c_{\gamma}^{\;3}-s_{2\;\gamma}\; s_{\gamma}\right)\; + \\ \sum_{p}\; g_{1}^{\;2}\; \left(c_{2\;\gamma}\; c_{\gamma}-2\; s_{2\;\gamma}\; s_{\gamma}\right)\; \right) \; \left(c_{3\;\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}\right) \; \left(c_{3\;\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}\right) \; \left(c_{3\;\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+c_{\gamma}^{\;2}+
                                                                                                                                                                                  \mathsf{LF_{1,0}}\!\left[\,m_{\tilde{q}}^{\,\,p}\,\right] \,+\, \frac{2}{243} \, \sum_{p} \, {g_{1}}^{4} \, \, \mathsf{LF_{3,0}}\!\left[\,m_{\tilde{q}}^{\,\,p}\,\right] \, \, \delta_{\text{ili2}} \, \, \delta_{\text{i3i4}} \, -\, \frac{1}{2} \, \, \delta_{\text{i3i4}} \, \, +\, \frac{1}{2} \, 
                                                                                                                                                              \frac{5}{324} \, \sum_{p} \, {g_{1}}^{4} \, \mathsf{LF_{4,-1}} \big[ \, \mathsf{m_{\tilde{q}}}^{\, p} \big] \, \, \delta_{\mathsf{i} \mathsf{1} \mathsf{i} \mathsf{2}} \, \delta_{\mathsf{i} \mathsf{3} \mathsf{i} \mathsf{4}} \, + \, \frac{8}{1215} \, \sum_{p} \, {g_{1}}^{4} \, \, \mathsf{LF_{5,-2}} \big[ \, \mathsf{m_{\tilde{q}}}^{\, p} \big] \, \, \delta_{\mathsf{i} \mathsf{1} \mathsf{i} \mathsf{2}} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{i} \mathsf{4}} \, + \, \frac{8}{1215} \, \sum_{p} \, {g_{1}}^{4} \, \, \, \mathsf{LF_{5,-2}} \big[ \, \mathsf{m_{\tilde{q}}}^{\, p} \big] \, \, \delta_{\mathsf{i} \mathsf{1} \mathsf{i} \mathsf{2}} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{i} \mathsf{4}} \, + \, \frac{8}{1215} \, \sum_{p} \, {g_{1}}^{4} \, \, \, \, \mathsf{LF_{5,-2}} \big[ \, \mathsf{m_{\tilde{q}}}^{\, p} \big] \, \, \delta_{\mathsf{i} \mathsf{1} \mathsf{i} \mathsf{2}} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{i} \mathsf{4}} \, + \, \frac{8}{1215} \, \sum_{p} \, {g_{1}}^{4} \, \, \, \, \mathsf{LF_{5,-2}} \big[ \, \mathsf{m_{\tilde{q}}}^{\, p} \big] \, \, \delta_{\mathsf{i} \mathsf{1} \mathsf{i} \mathsf{2}} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{i} \mathsf{4}} \, + \, \frac{8}{1215} \, \sum_{p} \, {g_{1}}^{4} \, \, \, \, \mathsf{LF_{5,-2}} \big[ \, \mathsf{m_{\tilde{q}}}^{\, p} \big] \, \, \delta_{\mathsf{i} \mathsf{1} \mathsf{i} \mathsf{2}} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{i} \mathsf{4}} \, + \, \frac{8}{1215} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3}} \, + \, \frac{1}{12} \, \, \delta_{\mathsf{i} \mathsf{3}} \, + \, \frac{1}{
                                                                                                                                                          \frac{16}{243} \, \sum_{p} \, g_{1}{}^{4} \, \mathsf{LF}_{3,\theta} \left[ \, \mathsf{m}_{\bar{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, - \, \frac{10}{81} \, \sum_{p} \, g_{1}{}^{4} \, \mathsf{LF}_{4,-1} \left[ \, \mathsf{m}_{\bar{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{4}} \, + \, \frac{1}{81} \, \left[ \, \mathsf{m}_{\dot{u}}^{\,\, p} \, \right] \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{1}\dot{2}\dot{1}\dot{2}} \, \delta
                                                                                                                                                              \frac{64}{1215} \, \sum_{p} \, g_{1}{}^{4} \, LF_{5,-2} \! \left[ m_{\bar{u}}{}^{p} \right] \, \delta_{\text{ili}2} \, \delta_{\text{i3i4}} - \frac{1}{2} \, c_{\gamma} \, \frac{1}{m_{0}{}^{4}} \, \overline{y_{u}}{}^{pr} \, \overline{y_{u}}{}^{\text{i2i3}} \, y_{u}{}^{pr} \, y_{u}{}^{\text{ili4}} \, \left( c_{\gamma}{}^{3} - s_{2\,\gamma} \, s_{\gamma} \right) \, LF_{1,0} \! \left[ m_{\bar{u}}{}^{r} \right] + \frac{1}{2} \, 
                                                                                                                                                          \frac{1}{^{24}} \; c_{\gamma} \; \frac{1}{^{m_{0}^{4}}} \; \overline{y_{u}}^{\text{i2i3}} \; y_{u}^{\,\, \text{i1i4}} \; \left( c_{\gamma} \; \left( g_{1}^{\,\, 2} \; \left( 1 - 3 \; c_{2 \, \gamma}^{\,\, 2} \right) \right. - 3 \; g_{2}^{\,\, 2} \; \left( - 1 + c_{2 \, \gamma}^{\,\, 2} \right) \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{4 \, \gamma} \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{2}^{\,\, 2} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{\gamma} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{\gamma} \right) \; + \; 3 \; s_{\gamma} \; \left( g_{1}^{\,\, 2} + g_{\gamma} \right) \; + \; 3 \;
                                                                                                                                                                                  LF_{1,0}\left[\,m_{_{\!\!\!\!/}}\right] \,+\, \frac{1}{24} \,\, \frac{1}{m_{_{\!\!\!/}}^2} \,\, c_{_{\!\!\!/}}^{\,\,2} \,\, \left(3\,\overline{y_u}^{\text{i2i3}}\,y_u^{\,\text{pi4}} \,\left(-\,s_{_{\!\!\!/}}^{\,\,2}\,\overline{y_d}^{\text{pr}}\,y_d^{\,\,\text{i1r}} \,+\, c_{_{\!\!\!/}}^{\,\,2}\,\overline{y_u}^{\text{pr}}\,y_u^{\,\,\text{i1r}}\right) \,\, -\, \frac{1}{24} \,\, \frac{1}{m_{_{\!\!\!/}}^2} \,\, c_{_{\!\!\!/}}^{\,\,2} \,\, \left(3\,\overline{y_u}^{\,\,\text{i2i3}}\,y_u^{\,\,\text{pi4}} \,\, \left(-\,s_{_{\!\!\!/}}^{\,\,2}\,\overline{y_d}^{\,\,\text{pr}}\,y_d^{\,\,\text{i1r}} \,+\, c_{_{\!\!\!/}}^{\,\,2}\,\overline{y_u}^{\,\,\text{pr}}\,y_u^{\,\,\text{i1r}}\right) \,\, -\, \frac{1}{24} \,\, \frac{1}{m_{_{\!\!\!/}}^2} \,\, c_{_{\!\!\!/}}^{\,\,2} \,\, \left(3\,\overline{y_u}^{\,\,\text{i2i3}}\,y_u^{\,\,\text{pi4}} \,\, \left(-\,s_{_{\!\!\!/}}^{\,\,2}\,\overline{y_d}^{\,\,\text{pr}}\,y_d^{\,\,\text{i1r}} \,+\, c_{_{\!\!\!/}}^{\,\,2}\,\overline{y_u}^{\,\,\text{pr}}\,y_u^{\,\,\text{i1r}}\right) \,\, -\, \frac{1}{24} \,\, \frac{1}{m_{_{\!\!\!/}}^2} \,\, \left(3\,\overline{y_u}^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}} \,+\, c_{_{\!\!\!/}}^{\,\,2}\,\overline{y_u}^{\,\,\text{pr}}\,y_u^{\,\,\text{i1r}}\right) \,\, -\, \frac{1}{24} \,\, \frac{1}{m_{_{\!\!\!/}}^2} \,\, \left(3\,\overline{y_u}^{\,\,\text{pr}}\,y_u^{\,\,\text{i1r}} \,+\, c_{_{\!\!\!/}}^{\,\,2}\,\overline{y_u}^{\,\,\text{pr}}\,y_u^{\,\,\text{i1r}}\right) \,\, -\, \frac{1}{24} \,\, \frac{1}{m_{_{\!\!\!/}}^2} \,\, \left(3\,\overline{y_u}^{\,\,\text{pr}}\,y_u^{\,\,\text{i1r}} \,+\, c_{_{\!\!\!/}}^{\,\,2}\,\overline{y_u}^{\,\,\text{pr}}\,y_u^{\,\,\text{i1r}}\right) \,\, -\, \frac{1}{24} \,\, \frac{1}{m_{_{\!\!\!/}}^2} \,\, \left(3\,\overline{y_u}^{\,\,\text{pr}}\,y_u^{\,\,\text{i1r}} \,+\, c_{_{\!\!\!/}}^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\right) \,\, -\, \frac{1}{24} \,\, \frac{1}{m_{_{\!\!\!/}}^2} \,\, \left(3\,\overline{y_u}^{\,\,\text{pr}}\,y_u^{\,\,\text{i1r}} \,+\, c_{_{\!\!\!/}}^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\right) \,\, -\, \frac{1}{24} \,\, \frac{1}{m_{_{\!\!\!/}}^2} \,\, \left(3\,\overline{y_u}^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\right) \,\, -\, \frac{1}{24} \,\, \frac{1}{m_{_{\!\!\!/}}^2} \,\, \left(3\,\overline{y_u}^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\right) \,\, -\, \frac{1}{24} \,\, \frac{1}{m_{_{\!\!\!/}}^2} \,\, \left(3\,\overline{y_u}^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,y_u^{\,\,\text{i1r}}\,
                                                                                                                                                                                                                                                       y_{u}^{\text{ili4}} \, \left( 2 \, \overline{y_{u}}^{\text{i2i3}} \, \left( g_{1}^{\, 2} + 3 \, g_{2}^{\, 2} \right) \, + \, 3 \, \overline{y_{u}}^{\text{ri3}} \, \left( s_{\gamma}^{\, 2} \, \overline{y_{d}}^{\text{i2p}} \, y_{d}^{\, \text{rp}} - c_{\gamma}^{\, 2} \, \overline{y_{u}}^{\text{i2p}} \, y_{u}^{\, \text{rp}} \right) \, \right) \, LF_{1,1} [\, m_{\scriptscriptstyle \oplus} \, ] \, + \, 3 \, \overline{y_{u}}^{\, 1} \, + \, 3 \, \overline{y_{u}}
                                                                                                                                                              \frac{1}{216} \left(18 \; {s_{\gamma}}^2 \; {c_{\gamma}}^2 \; \overline{y_d}^{\text{pr}} \; {y_d}^{\text{ilr}} \; \overline{y_u}^{\text{i2i3}} \; {y_u}^{\text{pi4}} + 2 \; {s_{\gamma}}^2 \; \overline{y_d}^{\text{i2p}} \; \left(9 \; {c_{\gamma}}^2 \; \overline{y_u}^{\text{ri3}} \; \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{i1i4}} \right) \; + \right) \; {y_d}^{\text{ri3}} \; \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{i1i4}} \right) \; + \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{i1i4}} \right) \; + \left(-6 \; {y_d}^{\text{i1p}} \; {y_u}^{\text{ri4}} + {y_d}^{\text{rp}} \; {y_u}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} \right) \; + \left(-6 \; {y_d}^{\text{ri4}} \; {y_d}^{\text{ri4}} + {y_d}^{\text{ri4}} + {y_d}^{\text{ri4
                                                                                                                                                                                                                                                                                                                                                         8\;{g_{1}}^{2}\;{y_{d}}^{\text{ilp}}\;{\delta_{\text{i3i4}}}\big)\;+\;{c_{\gamma}}^{2}\;\left(9\;\overline{y_{u}}^{\text{i2i3}}\;{y_{u}}^{\text{ili4}}\;\left({g_{1}}^{2}\;+\;3\;{g_{2}}^{2}\right)\;-\;
                                                                                                                                                                                                                                                                                                                                                         4\;g_{1}^{\;2}\;\overline{y_{u}}^{\text{pi3}}\;y_{u}^{\;\text{pi4}}\;\delta_{\text{ili2}}-4\;\overline{y_{u}}^{\text{i2p}}\;y_{u}^{\;\text{i1p}}\;\left(27\;s_{\gamma}^{\;2}\;\overline{y_{u}}^{\text{ri3}}\;y_{u}^{\;\text{ri4}}+8\;g_{1}^{\;2}\;\delta_{\text{i3i4}}\right)\big)\,\Big)
                                                                                                                                                                                  LF_{1,2}[\,m_{_{\overline{\Phi}}}]\,\,+\,\,\frac{1}{36}\,\,\left(\,s_{_{Y}}^{\,\,2}\,\,\overline{y_{_{d}}}^{i2p}\,\,y_{_{d}}^{\,\,i1p}\,\,\left(\,9\,\,c_{_{Y}}^{\,\,2}\,\,\overline{y_{_{u}}}^{ri3}\,\,y_{_{u}}^{\,\,ri4}\,-\,2\,\,g_{_{1}}^{\,\,2}\,\,\delta_{i3i4}\right)\,\,-\,\,\frac{1}{36}\,\,\left(\,s_{_{Y}}^{\,\,2}\,\,\overline{y_{_{d}}}^{i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i1p}\,\,\left(\,9\,\,c_{_{Y}}^{\,\,2}\,\,\overline{y_{_{u}}}^{ri3}\,\,y_{_{u}}^{\,\,ri4}\,-\,2\,\,g_{_{1}}^{\,\,2}\,\,\delta_{i3i4}\right)\,\,-\,\,\frac{1}{36}\,\,\left(\,s_{_{Y}}^{\,\,2}\,\,\overline{y_{_{d}}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^{\,\,i2p}\,\,y_{_{d}}^
                                                                                                                                                                                                                                                       c_{\gamma}^{2}\,\left(g_{1}^{2}\,\overline{y_{u}}^{\text{pi3}}\,y_{u}^{\,\text{pi4}}\,\delta_{\text{ili2}}\,+\,\overline{y_{u}}^{\text{i2p}}\,y_{u}^{\,\text{ilp}}\,\left(9\,\,c_{\gamma}^{\,2}\,\overline{y_{u}}^{\text{ri3}}\,y_{u}^{\,\text{ri4}}\,-\,2\,\,g_{1}^{\,2}\,\,\delta_{\text{i3i4}}\right)\right)\right)\,\text{LF}_{2,1}[\,\text{M}_{\tiny{\oplus}}\,]\,\,+\,\,c_{\gamma}^{\,2}\,\left(g_{1}^{\,2}\,\overline{y_{u}}^{\,\text{ri3}}\,y_{u}^{\,\text{ri4}}\,-\,2\,\,g_{1}^{\,2}\,\,\delta_{\text{i3i4}}\right)\right)
                                                                                                                                                          \frac{1}{324} \ g_1{}^2 \ \left(9 \ c_{\gamma}{}^2 \ \overline{y_u}{}^{pi3} \ y_u{}^{pi4} \ \delta_{i1i2} + 2 \ \left(9 \ s_{\gamma}{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} - 9 \ c_{\gamma}{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} + 4 \ g_1{}^2 \ \delta_{i1i2}\right) \ \delta_{i3i4}\right)
                                                                                                                                                                              \mathsf{LF_{3,0}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,-\,\,\frac{5}{108}\,\,\mathsf{g_{1}}^{4}\,\,\mathsf{LF_{4,-1}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\,\delta_{\mathsf{ili2}}\,\,\delta_{\mathsf{i3i4}}\,\,+\,\,\frac{8}{405}\,\,\mathsf{g_{1}}^{4}\,\,\mathsf{LF_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\,\delta_{\mathsf{ili2}}\,\,\delta_{\mathsf{i3i4}}\,\,+\,\,\frac{8}{405}\,\,\mathsf{g_{1}}^{4}\,\,\mathsf{LF_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\,\delta_{\mathsf{ili2}}\,\,\delta_{\mathsf{i3i4}}\,\,+\,\,\frac{8}{405}\,\,\mathsf{g_{1}}^{4}\,\,\mathsf{LF_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\,\delta_{\mathsf{ili2}}\,\,\delta_{\mathsf{i3i4}}\,\,+\,\,\frac{8}{405}\,\,\mathsf{g_{1}}^{4}\,\,\mathsf{LF_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\,\delta_{\mathsf{ili2}}\,\,\delta_{\mathsf{i3i4}}\,\,+\,\,\frac{8}{405}\,\,\mathsf{g_{1}}^{4}\,\,\mathsf{LF_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\,\delta_{\mathsf{ili2}}\,\,\delta_{\mathsf{i3i4}}\,\,+\,\,\frac{8}{405}\,\,\mathsf{g_{1}}^{4}\,\,\mathsf{LF_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\,\delta_{\mathsf{ili2}}\,\,\delta_{\mathsf{i3i4}}\,\,+\,\,\frac{8}{405}\,\,\mathsf{g_{1}}^{4}\,\,\mathsf{LF_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\,\delta_{\mathsf{ili2}}\,\,\delta_{\mathsf{i3i4}}\,\,+\,\,\frac{8}{405}\,\,\mathsf{g_{1}}^{4}\,\,\mathsf{LF_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\,\delta_{\mathsf{ili2}}\,\,\delta_{\mathsf{i3i4}}\,\,+\,\,\frac{8}{405}\,\,\mathsf{g_{1}}^{4}\,\,\mathsf{LF_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\,\delta_{\mathsf{ili2}}\,\,\delta_{\mathsf{i3i4}}\,\,+\,\,\frac{8}{405}\,\,\mathsf{g_{1}}^{4}\,\,\mathsf{LF_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\delta_{\mathsf{ili2}}\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\delta_{\mathsf{ili2}}\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\delta_{\mathsf{ili2}}\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\delta_{\mathsf{ili2}}\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\delta_{\mathsf{ili2}}\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\delta_{\mathsf{ili2}}\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\delta_{\mathsf{ili2}}\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\delta_{\mathsf{ili2}}\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}}}\,]\,\,\mathsf{G_{5,-2}}\,]\,\,\mathsf{G_{5,-2}}\,[\,\mathsf{m}_{\scriptscriptstyle{\bar{\oplus}
                                                                                                                                                          \frac{2}{81} \ {\rm g_1}^4 \ {\rm LF_{3,0}} \ [\tilde{\mu}] \ \delta_{\rm ili2} \ \delta_{\rm i3i4} + \frac{1}{27} \ {\rm g_1}^4 \ {\rm LF_{4,-1}} \ [\tilde{\mu}] \ \delta_{\rm ili2} \ \delta_{\rm i3i4} - \frac{1}{27} \ {\rm g_{10}} \ \delta_{\rm ili2} \ \delta_{\rm ili2} \ \delta_{\rm ili3} + \frac{1}{27} \ {\rm g_{10}} \ \delta_{\rm ili2} \ \delta_{\rm ili2} \ \delta_{\rm ili3} + \frac{1}{27} \ {\rm g_{10}} \ \delta_{\rm ili2} \ \delta_{\rm ili3} + \frac{1}{27} \ \delta_{\rm i
                                                                                                                                                          \frac{16}{405} \ g_1^{\ 4} \ \mathsf{LF}_{5, -2} \left[ \, \widetilde{\mu} \, \right] \ \delta_{\mathsf{ili2}} \ \delta_{\mathsf{i3i4}} + \frac{1}{216} \ g_1^{\ 2} \ \frac{1}{\mathsf{m_0}^2} \ c_{\gamma}^{\ 2} \ \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \ \mathsf{y_u}^{\mathsf{ili4}} \ \mathsf{LF}_{\mathsf{1,1,0}} \left[ \, \mathsf{m_1}, \, \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \, \right] - \frac{1}{2} \ \mathsf{m_{\tilde{q}}}^{\mathsf{i2i}} \ \mathsf{m_{\tilde{q}}}^{\mathsf{i2i}} + \frac{1}{2} \ \mathsf{m_{\tilde{q}}}^{\mathsf{i2i}} \ \mathsf{m_{\tilde{q}}}^{\mathsf{i2i}} + \frac{1}{2} \ 
                                                                                                                                                          \frac{1}{432} \; g_1{}^2 \; \frac{1}{m_0{}^2} \; c_\gamma{}^2 \; \overline{y_u}{}^{i2i3} \; y_u{}^{i1i4} \; \mathsf{LF}_{2,1,-1} \big[ \, \mathsf{m}_1, \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i1} \big] \; + \\
                                                                                                                                                          \frac{1}{216} \; g_1^2 \; \frac{1}{m_0^2} \; c_\gamma^2 \; \overline{y_u^{\text{i2i3}}} \; y_u^{\text{i1i4}} \; \mathsf{LF}_{1,1,0} \big[ m_1, \; m_{\tilde{q}}^{\text{i2}} \big] \; -
                                                                                                                                                          \frac{1}{432} \; g_1{}^2 \; \frac{1}{m_e{}^2} \; c_\gamma{}^2 \; \overline{y_u}{}^{i2i3} \; y_u{}^{i1i4} \; \mathsf{LF}_{2,1,-1} \big[ \mathsf{m}_1, \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2} \big] \; + \; \frac{1}{972} \; g_1{}^4 \; \mathsf{LF}_{2,1,\theta} \big[ \mathsf{m}_1, \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2} \big] \; \delta_{i1i2} \; \delta_{i3i4} \; + \; \frac{1}{972} \; g_1{}^4 \; \mathsf{LF}_{2,1,\theta} \big[ \mathsf{m}_1, \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2} \big] \; \delta_{i1i2} \; \delta_{i3i4} \; + \; \frac{1}{972} \; g_1{}^4 \; \mathsf{LF}_{2,1,\theta} \big[ \mathsf{m}_1, \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2} \big] \; \delta_{i1i2} \; \delta_{i3i4} \; + \; \frac{1}{972} \; g_1{}^4 \; \mathsf{LF}_{2,1,\theta} \big[ \mathsf{m}_1, \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2} \big] \; \delta_{i1i2} \; \delta_{i3i4} \; + \; \frac{1}{972} \; g_1{}^4 \; \mathsf{LF}_{2,1,\theta} \big[ \mathsf{m}_1, \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2} \big] \; \delta_{i1i2} \; \delta_{i3i4} \; + \; \frac{1}{972} \; g_1{}^4 \; \mathsf{LF}_{2,1,\theta} \big[ \mathsf{m}_1, \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2} \big] \; \delta_{i1i2} \; \delta_{i3i4} \; + \; \frac{1}{972} \; g_1{}^4 \; \mathsf{LF}_{2,1,\theta} \big[ \mathsf{m}_1, \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2} \big] \; \delta_{i1i2} \; \delta_{i3i4} \; + \; \frac{1}{972} \; g_1{}^4 \; \mathsf{LF}_{2,1,\theta} \big[ \mathsf{m}_1, \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2} \big] \; \delta_{i1i2} \; \delta_{i3i4} \; + \; \frac{1}{972} \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2} \, \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2} \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{i2
                                                                                                                                                          \frac{1}{972}~g_{1}{}^{4}~\mathsf{LF}_{2,2,-1}\big[\,\mathsf{m}_{1}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\dot{1}2}\,\big]~\delta_{\dot{1}\dot{1}\dot{1}}\,\delta_{\dot{1}3\dot{1}4}\,-\,\frac{1}{486}~g_{1}{}^{4}~\mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{1}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\dot{1}2}\,\big]~\delta_{\dot{1}\dot{1}\dot{1}}\,\delta_{\dot{1}3\dot{1}4}\,+\,\frac{1}{486}\,g_{1}{}^{4}\,\mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{1}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}{}^{\dot{1}2}\,\big]
                                                                                                                                                          \frac{1}{972}~g_{1}{}^{4}~\mathsf{LF_{4,1,-2}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{q}}}{}^{\mathsf{i}\,2}\,\big]~\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}~\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4} + \frac{2}{27}~g_{1}{}^{2}~\frac{1}{\mathsf{m_{0}}^{2}}~c_{\gamma}{}^{2}~\overline{y_{u}}{}^{\mathsf{i}\,2\,\mathsf{i}\,3}~y_{u}{}^{\mathsf{i}\,1\,\mathsf{i}\,4}~\mathsf{LF_{1,1,0}}\big[\,\mathsf{m_{1}}\,,\,\mathsf{m_{\tilde{u}}}{}^{\mathsf{i}\,3}\,\big] - \frac{1}{2}\,\mathsf{m_{1}}\,\mathsf{m_{2}}\,\mathsf{m_{2}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m_{3}}\,\mathsf{m
                                                                                                                                                          \frac{1}{27} \ g_1{}^2 \ \frac{1}{m_\text{s}{}^2} \ c_\gamma{}^2 \ \overline{y_\text{u}}{}^{\text{i2i3}} \ y_\text{u}{}^{\text{i1i4}} \ \mathsf{LF}_{2,\text{l,-1}} \big[ \, \mathsf{m}_\text{l} \, , \, \, \mathsf{m}_{\tilde{\mathsf{u}}}{}^{\text{i3}} \, \big] \ + \frac{2}{27} \ g_1{}^2 \ \frac{1}{m_\text{s}{}^2} \ c_\gamma{}^2 \ \overline{y_\text{u}}{}^{\text{i2i3}} \ y_\text{u}{}^{\text{i1i4}} \ \mathsf{LF}_{\text{l,1,0}} \big[ \, \mathsf{m}_\text{l} \, , \, \, \mathsf{m}_{\tilde{\mathsf{u}}}{}^{\text{i4}} \, \big] \ - \frac{1}{27} \ g_1{}^2 \ \frac{1}{m_\text{s}{}^2} \ c_\gamma{}^2 \ \overline{y_\text{u}}{}^{\text{i2i3}} \ y_\text{u}{}^{\text{i1i4}} \ \mathsf{LF}_{\text{l,1,0}} \big[ \, \mathsf{m}_\text{l} \, , \, \, \mathsf{m}_{\tilde{\mathsf{u}}}{}^{\text{i4}} \, \big] \ - \frac{1}{27} \ g_1{}^2 \ \frac{1}{m_\text{s}{}^2} \ c_\gamma{}^2 \ \overline{y_\text{u}}{}^{\text{i2i3}} \ y_\text{u}{}^{\text{i1i4}} \ \mathsf{LF}_{\text{l,1,0}} \big[ \, \mathsf{m}_\text{l} \, , \, \, \mathsf{m}_{\tilde{\mathsf{u}}}{}^{\text{i4}} \, \big] \ - \frac{1}{27} \ g_1{}^2 \ \frac{1}{m_\text{s}{}^2} \ c_\gamma{}^2 \ \overline{y_\text{u}}{}^{\text{i2i3}} \ y_\text{u}{}^{\text{i1i4}} \ \mathsf{LF}_{\text{l,1,0}} \big[ \, \mathsf{m}_\text{l} \, , \, \, \mathsf{m}_{\tilde{\mathsf{u}}}{}^{\text{i4}} \, \big] \ - \frac{1}{27} \ g_1{}^2 \ \frac{1}{m_\text{l}{}^2} \ \frac{1}{m_\text{l}} \ \frac{1
                                                                                                                                                          \frac{1}{27} \ g_1{}^2 \ \frac{1}{m_0{}^2} \ c_\gamma{}^2 \ \overline{y_u}^{\text{i2i3}} \ y_u{}^{\text{i1i4}} \ \mathsf{LF}_{2,1,-1} \big[ m_1, \ m_{\tilde{u}}{}^{\text{i4}} \big] \ + \frac{4}{243} \ g_1{}^4 \ \mathsf{LF}_{2,1,0} \big[ m_1, \ m_{\tilde{u}}{}^{\text{i4}} \big] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} \ + \frac{4}{243} \ g_1{}^4 \ \mathsf{LF}_{2,1,0} \big[ m_1, \ m_{\tilde{u}}{}^{\text{i4}} \big] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} \ + \frac{4}{243} \ g_1{}^4 \ \mathsf{LF}_{2,1,0} \big[ m_1, \ m_{\tilde{u}}{}^{\text{i4}} \big] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} \ + \frac{4}{243} \ g_1{}^4 \ \mathsf{LF}_{2,1,0} \big[ m_1, \ m_{\tilde{u}}{}^{\text{i4}} \big] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} \ + \frac{4}{243} \ g_1{}^4 \ \mathsf{LF}_{2,1,0} \big[ m_1, \ m_{\tilde{u}}{}^{\text{i4}} \big] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} \ + \frac{4}{243} \ g_1{}^4 \ \mathsf{LF}_{2,1,0} \big[ m_1, \ m_{\tilde{u}}{}^{\text{i4}} \big] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} \ + \frac{4}{243} \ g_1{}^4 \ \mathsf{LF}_{2,1,0} \big[ m_1, \ m_{\tilde{u}}{}^{\text{i4}} \big] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} \ + \frac{4}{243} \ g_1{}^4 \ \mathsf{LF}_{2,1,0} \big[ m_1, \ m_{\tilde{u}}{}^{\text{i4}} \big] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} \ + \frac{4}{243} \ g_1{}^4 \ \mathsf{LF}_{2,1,0} \big[ m_1, \ m_{\tilde{u}}{}^{\text{i4}} \big] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} \ + \frac{4}{243} \ g_1{}^4 \ \mathsf{LF}_{2,1,0} \big[ m_1, \ m_{\tilde{u}}{}^{\text{i4}} \big] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} \ + \frac{4}{243} \ \mathsf{LF}_{2,1,0} \big[ m_1, \ m_{\tilde{u}}{}^{\text{i4}} \big] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} \ + \frac{4}{243} \ \mathsf{LF}_{2,1,0} \big[ m_1, \ m_{\tilde{u}}{}^{\text{i4}} \big] \ \delta_{\text{i1i2}} \ \delta_{
                                                                                                                                                          \frac{4}{243} \ g_1{}^4 \ \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_1 \,, \ \mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4} \big] \ \delta_{\dot{1}\dot{1}\dot{2}} \ \delta_{\dot{1}3\dot{1}4} \, - \, \frac{8}{243} \ g_1{}^4 \ \mathsf{LF}_{3,1,-1} \big[ \mathsf{m}_1 \,, \ \mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4} \big] \ \delta_{\dot{1}\dot{1}\dot{2}} \ \delta_{\dot{1}3\dot{1}4} \, + \, \frac{1}{2} \left[ \mathsf{m}_1 \,, \ \mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4} \,, \ \mathsf{m}_{\tilde
                                                                                                                                                      \frac{4}{243} \; g_{1}{}^{4} \; \mathsf{LF_{4,1,-2}} \big[ \, \mathsf{m_{1}} \, , \; \mathsf{m_{u}^{-i4}} \big] \; \delta_{\mathsf{1112}} \; \delta_{\mathsf{1314}} \, + \, \frac{1}{6} \; g_{1}{}^{2} \; \frac{1}{\mathsf{m_{s}^{-4}}} \; c_{\gamma}{}^{2} \; \overline{\mathsf{y_{u}^{-i213}}} \; \mathsf{y_{u}^{-i1i4}} \; \mathsf{LF_{1,1,-1}} \big[ \, \mathsf{m_{1}} \, , \; \widetilde{\mu} \, \big] \; + \, \frac{1}{6} \; g_{1}{}^{2} \; \frac{1}{\mathsf{m_{s}^{-4}}} \; c_{\gamma}{}^{2} \; \overline{\mathsf{y_{u}^{-i213}}} \; \mathsf{y_{u}^{-i1i4}} \; \mathsf{LF_{1,1,-1}} \big[ \, \mathsf{m_{1}} \, , \; \widetilde{\mu} \, \big] \; + \, \frac{1}{6} \; g_{1}{}^{2} \; \frac{1}{\mathsf{m_{1}^{-2}}} \; \frac{1}{\mathsf{m_{2}^{-2}}} \; \frac{1}{\mathsf{m_{2}^{-2}}}
                                                                                                                                                          \frac{1}{8}~g_2^2~\frac{1}{m_{_{g}}^2}~c_{_{\gamma}}^2~\overline{y_u}^{i2i3}~y_u^{i1i4}~\mathsf{LF}_{1,1,\theta}\big[m_2\,,\,m_{\tilde{q}}^{\,\,i1}\big] –
                                                                                                                                                              \frac{1}{16} \ g_2^2 \ \frac{1}{m_{\text{g}}^2} \ c_{\text{y}}^2 \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{i1i4}} \ \mathsf{LF}_{2,\text{1,-1}} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\bar{q}}^{\text{i1}} \big] \ + \ \frac{1}{8} \ g_2^2 \ \frac{1}{m_{\text{g}}^2} \ c_{\text{y}}^2 \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{i1i4}} \ \mathsf{LF}_{1,\text{1,0}} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\bar{q}}^{\text{i2}} \big] \ - \ \frac{1}{8} \ g_2^2 \ \frac{1}{m_{\text{g}}^2} \ c_{\text{y}}^2 \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{i1i4}} \ \mathsf{LF}_{1,\text{1,0}} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\bar{q}}^{\text{i2}} \big] \ - \ \frac{1}{8} \ g_2^2 \ \frac{1}{m_{\text{g}}^2} \ c_{\text{y}}^2 \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{i1i4}} \ \mathsf{LF}_{1,\text{1,0}} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\bar{q}}^{\text{i2}} \big] \ - \ \frac{1}{8} \ g_2^2 \ \frac{1}{m_{\text{g}}^2} \ c_{\text{y}}^2 \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{i1i4}} \ \mathsf{LF}_{1,\text{1,0}} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\bar{q}}^{\text{i2}} \big] \ - \ \frac{1}{8} \ g_2^2 \ \frac{1}{m_{\text{g}}^2} \ c_{\text{y}}^2 \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{i1i4}} \ \mathsf{LF}_{1,\text{1,0}} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\bar{q}}^{\text{i2}} \big] \ - \ \frac{1}{8} \ g_2^2 \ \frac{1}{m_{\text{g}}^2} \ c_{\text{y}}^2 \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{i1i4}} \ \mathsf{LF}_{1,\text{1,0}} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\bar{q}}^{\text{i2}} \big] \ - \ \frac{1}{8} \ g_2^2 \ \frac{1}{m_{\text{g}}^2} \ c_{\text{y}}^2 \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{i1i4}} \ \mathsf{LF}_{1,\text{1,0}} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\bar{q}}^{\text{i2}} \big] \ - \ \frac{1}{8} \ g_2^2 \ \frac{1}{m_{\text{g}}^2} \ c_{\text{y}}^2 \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{i1i4}} \ \mathsf{LF}_{1,\text{1,0}} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\bar{q}}^{\text{i2}} \big] \ + \ \frac{1}{8} \ g_2^2 \ \frac{1}{m_{\text{g}}^2} \ c_{\text{y}}^2 \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{i1i4}} \ \mathsf{LF}_{1,\text{1,0}} \ c_{\text{y}}^2 \
                                                                                                                                                              \frac{1}{16} \ g_2^2 \ \frac{1}{m_{\tilde{g}}^2} \ c_{\gamma}^2 \ \overline{y_u}^{i2i3} \ y_u^{i1i4} \ \mathsf{LF}_{2,1,-1} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\tilde{q}}^{\ i2} \big] \ + \\ \frac{1}{36} \ g_1^2 \ g_2^2 \ \mathsf{LF}_{2,1,\theta} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\tilde{q}}^{\ i2} \big] \ \delta_{i1i2} \ \delta_{i3i4} \ + \\ \frac{1}{36} \ g_1^2 \ g_2^2 \ \mathsf{LF}_{2,1,\theta} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\tilde{q}}^{\ i2} \big] \ \delta_{i1i2} \ \delta_{i3i4} \ + \\ \frac{1}{36} \ g_1^2 \ g_2^2 \ \mathsf{LF}_{2,1,\theta} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\tilde{q}}^{\ i2} \big] \ \delta_{i1i2} \ \delta_{i3i4} \ + \\ \frac{1}{36} \ g_1^2 \ g_2^2 \ \mathsf{LF}_{2,1,\theta} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\tilde{q}}^{\ i2} \big] \ \delta_{i1i2} \ \delta_{i3i4} \ + \\ \frac{1}{36} \ g_1^2 \ g_2^2 \ \mathsf{LF}_{2,1,\theta} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\tilde{q}}^{\ i2} \big] \ \delta_{i1i2} \ \delta_{i3i4} \ + \\ \frac{1}{36} \ g_1^2 \ g_2^2 \ \mathsf{LF}_{2,1,\theta} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\tilde{q}}^{\ i2} \big] \ \delta_{i1i2} \ \delta_{i3i4} \ + \\ \frac{1}{36} \ g_1^2 \ g_2^2 \ \mathsf{LF}_{2,1,\theta} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\tilde{q}}^{\ i2} \big] \ \delta_{i1i2} \ \delta_{i3i4} \ + \\ \frac{1}{36} \ g_1^2 \ g_2^2 \ \mathsf{LF}_{2,1,\theta} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\tilde{q}}^{\ i2} \big] \ \delta_{i1i2} \ \delta_{i3i4} \ + \\ \frac{1}{36} \ g_1^2 \ g_2^2 \ \mathsf{LF}_{2,1,\theta} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\tilde{q}}^{\ i2} \big] \ \delta_{i1i2} \ \delta_{i3i4} \ + \\ \frac{1}{36} \ g_1^2 \ g_2^2 \ \mathsf{LF}_{2,1,\theta} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\tilde{q}}^{\ i2} \big] \ \delta_{i1i2} \ \delta_{i3i4} \ + \\ \frac{1}{36} \ g_1^2 \ g_2^2 \ \mathsf{LF}_{2,1,\theta} \big[ \ \mathsf{m}_2 \ , \ \mathsf{m}_{\tilde{q}}^{\ i2} \big] \ \delta_{i1i2} \ \delta_{i1i2
                                                                                                                                                              \frac{1}{36} \ g_1{}^2 \ g_2{}^2 \ \mathsf{LF_{4,1,-2}} \big[ \ \mathsf{m_2} \ , \ \mathsf{m_q^{-i2}} \big] \ \delta_{\mathsf{i1i2}} \ \delta_{\mathsf{i3i4}} + \frac{1}{2} \ g_2{}^2 \ \frac{1}{\mathsf{m_0}^4} \ c_{\gamma}{}^2 \ \overline{\mathsf{y_u^{i2i3}}} \ \mathsf{y_u^{i1i4}} \ \mathsf{LF_{1,1,-1}} \big[ \ \mathsf{m_2} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1{}^2 \ g_2{}^2 \ \frac{1}{\mathsf{m_0}^4} \ c_{\gamma}{}^2 \ \overline{\mathsf{y_u^{i2i3}}} \ \mathsf{y_u^{i1i4}} \ \mathsf{LF_{1,1,-1}} \big[ \ \mathsf{m_2} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1{}^2 \ g_2{}^2 \ \frac{1}{\mathsf{m_0}^4} \ c_{\gamma}{}^2 \ \overline{\mathsf{y_u^{i2i3}}} \ \mathsf{y_u^{i1i4}} \ \mathsf{LF_{1,1,-1}} \big[ \ \mathsf{m_2} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1{}^2 \ g_2{}^2 \ \frac{1}{\mathsf{m_0}^4} \ c_{\gamma}{}^2 \ \overline{\mathsf{y_u^{i2i3}}} \ \mathsf{y_u^{i1i4}} \ \mathsf{LF_{1,1,-1}} \big[ \ \mathsf{m_2} \ , \ \widetilde{\mu} \, \big] + \frac{1}{36} \ g_1{}^2 \ g_2{}^2 \ g_2{
                                                                                                                                              \text{m}_2\text{ s}_{\gamma}\;\tilde{\mu}\;\text{c}_{\gamma}\;\text{g}_2^2\;\tfrac{1}{\text{m}_\text{o}^4}\;\overline{\text{y}_\text{u}}^\text{i2i3}\;\text{y}_\text{u}^\text{i1i4}\;\left(-2\;\text{c}_{\gamma}^{\;2}+\text{s}_{\gamma}^{\;2}\right)\;\text{LF}_{1,1,0}\left[\,\text{m}_2\,\text{, }\tilde{\mu}\,\right]\;+
                                                                                                                                                          \frac{4}{81} \; g_{1}{}^{2} \; g_{3}{}^{2} \; \mathsf{LF}_{2,1,0} \big[ \, \mathsf{m}_{3} \, , \, \, \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\, \mathsf{i} \, 2} \, \big] \; \delta_{\mathsf{i} \, \mathsf{1} \, \mathsf{i} \, \mathsf{2}} \; \delta_{\mathsf{i} \, \mathsf{3} \, \mathsf{i} \, \mathsf{4}} \; + \; \frac{4}{81} \; g_{1}{}^{2} \; g_{3}{}^{2} \; \mathsf{LF}_{2,2,-1} \big[ \, \mathsf{m}_{3} \, , \, \, \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\, \mathsf{i} \, 2} \, \big] \; \delta_{\mathsf{i} \, \mathsf{1} \, \mathsf{i} \, \mathsf{2}} \; \delta_{\mathsf{i} \, \mathsf{3} \, \mathsf{i} \, \mathsf{4}} \; - \; \frac{4}{81} \; g_{1}{}^{2} \; g_{3}{}^{2} \; \mathsf{LF}_{2,2,-1} \big[ \, \mathsf{m}_{3} \, , \, \, \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\, \mathsf{i} \, 2} \, \big] \; \delta_{\mathsf{i} \, \mathsf{1} \, \mathsf{i} \, \mathsf{2}} \; \delta_{\mathsf{i} \, \mathsf{3} \, \mathsf{i} \, \mathsf{4}} \; - \; \frac{4}{81} \; g_{1}{}^{2} \; g_{3}{}^{2} \; \mathsf{LF}_{2,2,-1} \big[ \, \mathsf{m}_{3} \, , \, \, \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\, \mathsf{i} \, 2} \, \big] \; \delta_{\mathsf{i} \, \mathsf{1} \, \mathsf{i} \, \mathsf{2}} \; \delta_{\mathsf{i} \, \mathsf{3} \, \mathsf{i} \, \mathsf{4}} \; - \; \frac{4}{81} \; g_{1}{}^{2} \; g_{3}{}^{2} \; \mathsf{LF}_{2,2,-1} \big[ \, \mathsf{m}_{3} \, , \, \, \, \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\, \mathsf{i} \, 2} \, \big] \; \delta_{\mathsf{i} \, \mathsf{1} \, \mathsf{i} \, \mathsf{2}} \; \delta_{\mathsf{i} \, \mathsf{3} \, \mathsf{1} \, \mathsf{4}} \; - \; \frac{4}{81} \; g_{\mathsf{1}}{}^{2} \; g_{\mathsf{3}}{}^{2} \; \mathsf{LF}_{2,2,-1} \big[ \, \mathsf{m}_{3} \, , \, \, \, \, \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\, \mathsf{i} \, 2} \, \big] \; \delta_{\mathsf{i} \, \mathsf{3} \, \mathsf{1} \, \mathsf{4}} \; - \; \frac{4}{81} \; g_{\mathsf{1}}{}^{2} \; g_{\mathsf{3}}{}^{2} \; \mathsf{LF}_{2,2,-1} \big[ \, \mathsf{m}_{\mathsf{3}} \, , \, \, \, \, \, \, \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\, \mathsf{i} \, 2} \, \big] \; \delta_{\mathsf{1} \, \mathsf{1} \, \mathsf{1} \, \mathsf{3}} \; + \; \frac{4}{81} \; g_{\mathsf{1}}{}^{2} \; g_{\mathsf{3}}{}^{2} \; \mathsf{LF}_{\mathsf{3},-1} \, + \; \frac{4}{81} \; g_{\mathsf{1}}{}^{2} \; g_{\mathsf{3}}{}^{2} \; \mathsf{LF}_{\mathsf{3},-1} \, + \; \frac{4}{81} \; \mathsf{LF}_{\mathsf{3},-1} \, + \; \frac{4} \; \mathsf{LF}_{\mathsf{3},-1} \, + \; \frac{4}{81} \; + \; \frac{4}{81} \; + \; \frac{4}{81}
                                                                                                                                                          \frac{8}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{\dot{1}2}\big]\;\delta_{\dot{1}\dot{1}\dot{1}2}\;\delta_{\dot{1}3\dot{1}4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{\dot{1}2}\big]\;\delta_{\dot{1}\dot{1}\dot{1}2}\;\delta_{\dot{1}3\dot{1}4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{\dot{1}2}\big]\;\delta_{\dot{1}\dot{1}\dot{1}2}\;\delta_{\dot{1}3\dot{1}4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{\dot{1}2}\big]\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}3\dot{1}\dot{4}}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{\dot{1}2}\big]\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}3\dot{1}\dot{4}}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{\dot{1}2}\big]\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{\dot{1}2}\big]\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{\dot{1}2}\big]\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{\dot{1}2}\big]\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1
                                                                                                                                                          \frac{2}{9}\,g_{3}^{\,2}\,\frac{1}{m_{_{0}}^{\,2}}\,\,c_{_{\gamma}}^{\,2}\,\overline{y_{u}}^{i\,2i\,3}\,y_{u}^{\,i\,1i\,4}\,LF_{1,1,0}\big[\,m_{3}\,,\,m_{\bar{u}}^{\,i\,3}\,\big]\,-\,\frac{1}{9}\,g_{3}^{\,2}\,\frac{1}{m_{_{0}}^{\,2}}\,c_{_{\gamma}}^{\,2}\,\overline{y_{u}}^{i\,2i\,3}\,y_{u}^{\,i\,1i\,4}\,LF_{2,1,-1}\big[\,m_{3}\,,\,m_{\bar{u}}^{\,i\,3}\,\big]\,+\,\frac{1}{9}\,g_{3}^{\,2}\,\frac{1}{m_{_{0}}^{\,2}}\,c_{_{\gamma}}^{\,2}\,\overline{y_{u}}^{\,2i\,3}\,y_{u}^{\,i\,1i\,4}\,LF_{2,1,-1}\big[\,m_{3}\,,\,m_{\bar{u}}^{\,i\,3}\,\big]\,+\,\frac{1}{9}\,g_{3}^{\,2}\,\frac{1}{m_{_{0}}^{\,2}}\,c_{_{\gamma}}^{\,2}\,\overline{y_{u}}^{\,2}\,\overline{y_{u}}^{\,2i\,3}\,y_{u}^{\,2i\,3}\,A_{1}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^{\,2}\,A_{2}^
                                                                                                                                                              \frac{2}{9}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;c_{\gamma}^{2}\;\overline{y_{u}^{i}}^{2i3}\;y_{u}^{i1i4}\;\mathsf{LF}_{1,1,0}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{u}}^{\;i4}\,\right]\;-\;\frac{1}{9}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;c_{\gamma}^{2}\;\overline{y_{u}^{i}}^{2i3}\;y_{u}^{i1i4}\;\mathsf{LF}_{2,1,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{u}}^{\;i4}\,\right]\;+\;\frac{1}{9}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;c_{\gamma}^{2}\;\overline{y_{u}^{i}}^{2i3}\;y_{u}^{i1i4}\;\mathsf{LF}_{2,1,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{u}}^{\;i4}\,\right]\;+\;\frac{1}{9}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;c_{\gamma}^{2}\;\overline{y_{u}^{i}}^{2i3}\;y_{u}^{i1i4}\;\mathsf{LF}_{2,1,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{u}}^{\;i4}\,\right]\;+\;\frac{1}{9}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;c_{\gamma}^{2}\;\overline{y_{u}^{i}}^{2i3}\;y_{u}^{i1i4}\;\mathsf{LF}_{2,1,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{u}}^{\;i4}\,\right]\;+\;\frac{1}{9}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;c_{\gamma}^{2}\;\overline{y_{u}^{i}}^{2i3}\;y_{u}^{i1i4}\;\mathsf{LF}_{2,1,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{u}}^{\;i4}\,\right]\;+\;\frac{1}{9}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;c_{\gamma}^{2}\;\overline{y_{u}^{i}}^{2i3}\;y_{u}^{i1i4}\;\mathsf{LF}_{2,1,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{u}}^{\;i4}\,\right]\;+\;\frac{1}{9}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;c_{\gamma}^{2}\;\overline{y_{u}^{i}}^{2i3}\;y_{u}^{i1i4}\;\mathsf{LF}_{2,1,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{u}}^{\;i4}\,\right]\;+\;\frac{1}{9}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;c_{\gamma}^{2}\;\overline{y_{u}^{i}}^{2i3}\;y_{u}^{i1i4}\;\mathsf{LF}_{2,1,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{u}}^{\;i4}\,\right]\;+\;\frac{1}{9}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;c_{\gamma}^{2}\;\overline{y_{u}^{i}}^{2i3}\;y_{u}^{i}^{2i3}\;\mathsf{LF}_{2,1,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{u}}^{\,i4}\,\right]\;+\;\frac{1}{9}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{^{2}}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{2}}\;g_{3}^{2}\;\frac{1}{m_{_{0}}^{2}}\;g_{3}^{2}\;\frac{1}{m_{
                                                                                                                                                          \frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,1,0}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}^{\,\,\mathsf{i}\,4}\,\right]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}^{\,\,\mathsf{i}\,4}\,\right]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}^{\,\,\mathsf{i}\,4}\,\right]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}^{\,\,\mathsf{i}\,4}\,\right]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}^{\,\,\mathsf{i}\,4}\,\right]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}^{\,\,\mathsf{i}\,4}\,\right]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{4}{81}\;g_{1}{}^{2}\;g_{2}{}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}^{\,\,\mathsf{i}\,4}\,\right]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{4}{81}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{2}{}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}^{\,\,\mathsf{i}\,4}\,\right]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{2}{}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}^{\,\,\mathsf{i}\,2}\,\right]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{2}{}^{2}\;g_{1}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{2}\;g_{2}{}^{
                                                                                                                                                          \frac{8}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\;\delta_{\mathsf{i}\,1\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,3\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\;\delta_{\mathsf{i}\,1\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,3\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\;\delta_{\mathsf{i}\,1\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,3\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\,\delta_{\mathsf{i}\,1\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,3\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\,\delta_{\mathsf{i}\,1\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,3\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\,\delta_{\mathsf{i}\,1\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,3\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\,\delta_{\mathsf{i}\,1\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,3\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\,\delta_{\mathsf{i}\,1\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,3\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\,\delta_{\mathsf{i}\,1\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,3\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\,\delta_{\mathsf{i}\,1\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,3\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\,\delta_{\mathsf{i}\,1\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,3\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\mathsf{i}\,4}\big]\,\delta_{\mathsf{i}\,1\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,3\,\mathsf{i}\,4}\,+\,\frac{4}{81}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}
                                                                                                                                                          \frac{1}{12} \ \frac{1}{m_{\text{e}}^2} \ c_{\text{Y}}^2 \ \overline{y_{\text{d}}}^{\text{i2p}} \ y_{\text{d}}^{\text{rp}} \ \overline{y_{\text{u}}}^{\text{ri3}} \ y_{\text{u}}^{\text{i1i4}} \ \mathsf{LF}_{1,1,0} \left[ \, m_{\tilde{\text{d}}}^{\,\, p} \,, \ \widetilde{\mu} \, \right] \ + \frac{2}{27} \ g_1^2 \ \overline{y_{\text{d}}}^{\text{i2p}} \ y_{\text{d}}^{\,\, \text{i1p}} \ \mathsf{LF}_{2,1,0} \left[ \, m_{\tilde{\text{d}}}^{\,\, p} \,, \ \widetilde{\mu} \, \right] \ \delta_{\text{i3i4}} - \frac{1}{27} \ \delta_{\text{u}}^{\,\, \text{i2p}} \ y_{\text{d}}^{\,\, \text{i2p}} \ y_{\text{d}}^{\,\, \text{i2p}} \ \mathsf{LF}_{2,1,0} \left[ \, m_{\tilde{\text{d}}}^{\,\, p} \,, \ \widetilde{\mu} \, \right] \ \delta_{\text{i3i4}} - \frac{1}{27} \ \delta_{\text{u}}^{\,\, \text{i2p}} \ y_{\text{d}}^{\,\, \text{i2p}} \ y_{\text{d}}^{\,\, \text{i2p}} \ \mathsf{LF}_{2,1,0} \left[ \, m_{\tilde{\text{d}}}^{\,\, p} \,, \ \widetilde{\mu} \, \right] \ \delta_{\text{i3i4}} - \frac{1}{27} \ \delta_{\text{u}}^{\,\, \text{i2p}} \ y_{\text{d}}^{\,\, \text{i2p}} \ y_{\text{d}}^{\,\, \text{i2p}} \ \mathsf{LF}_{2,1,0} \left[ \, m_{\tilde{\text{d}}}^{\,\, p} \,, \ \widetilde{\mu} \, \right] \ \delta_{\text{u}} + \frac{1}{27} \ \delta_{\text{u}}^{\,\, \text{i2p}} \ y_{\text{d}}^{\,\, \text{i2p}} \ y_{\text{d}}^{\,\, \text{i2p}} \ \mathsf{LF}_{2,1,0} \left[ \, m_{\tilde{\text{d}}}^{\,\, p} \,, \ \widetilde{\mu} \, \right] \ \delta_{\text{u}} + \frac{1}{27} \ \delta_{\text{u}}^{\,\, \text{i2p}} \ y_{\text{d}}^{\,\, \text{i2p}
                                                                                                                                                          \frac{1}{27} \ g_1{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{2,2,-1} \big[ \ \mathsf{m}_{\bar{d}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{i3i4} - \frac{1}{27} \ g_1{}^2 \ \overline{y_d}{}^{i2p} \ y_d{}^{i1p} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_{\bar{d}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{i3i4} + \frac{1}{27} \ \mathsf{m}_{\bar{d}}{}^p \ , \ \widetilde{\mu}_{1,1} + \frac{1}{27} \ \mathsf{m}_{1,1} + \frac{1}{27} \ \mathsf
                                                                                                                                                              \frac{1}{2} \; c_{\gamma} \; \frac{1}{m_{\text{b}}^4} \; \overline{y_u}^{\text{i2i3}} \; y_u^{\text{i1i4}} \; \left(\widetilde{\mu} \; \overline{y_d}^{\text{pr}} \; \left(a_d^{\text{pr}} \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 3}\right) \right. \\ \left. - \, \widetilde{\mu} \; c_{\gamma} \; y_d^{\text{pr}} \; \left(c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2}\right) \right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 3}\right) \; - \; \widetilde{\mu} \; c_{\gamma} \; y_d^{\text{pr}} \; \left(c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2}\right) \right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 3}\right) \; - \; \widetilde{\mu} \; c_{\gamma} \; y_d^{\text{pr}} \; \left(c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 3}\right) \; - \; \widetilde{\mu} \; c_{\gamma} \; y_d^{\text{pr}} \; \left(c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 3}\right) \; - \; \widetilde{\mu} \; c_{\gamma} \; y_d^{\text{pr}} \; \left(c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 3}\right) \; - \; \widetilde{\mu} \; c_{\gamma} \; y_d^{\text{pr}} \; \left(c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 3}\right) \; - \; \widetilde{\mu} \; c_{\gamma} \; y_d^{\text{pr}} \; \left(c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 3}\right) \; - \; \widetilde{\mu} \; c_{\gamma} \; y_d^{\text{pr}} \; \left(c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 3}\right) \; - \; \widetilde{\mu} \; c_{\gamma} \; y_d^{\text{pr}} \; \left(c_{\gamma}^{\; 2} + c_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2}\right) \; + \; \left(-2 \; s_{\gamma} \; c_{\gamma}^{\; 2} 
                                                                                                                                                                                                                                                       s_{\gamma}^{-}\overline{a_{d}}^{pr}\left(-3\;s_{\gamma}\;c_{\gamma}\;a_{d}^{\;pr}+\widetilde{\mu}\;y_{d}^{\;pr}\;\left(-2\;c_{\gamma}^{\;2}+s_{\gamma}^{\;2}\right)\right)\right)\;LF_{1,1,0}^{}\left[\,m_{\bar{d}}^{\;r},\;m_{\bar{q}}^{\;p}\,\right]\;+
                                                                                                                                                          \frac{1}{12} \ \frac{1}{m_{\text{D}}^2} \ c_{\text{Y}}^2 \ \overline{y_d}^{\text{pr}} \ y_d^{\text{ilr}} \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{pi4}} \ LF_{1,1,0} \left[ m_{\bar{d}}^{\text{-}r} \, , \ \widetilde{\mu} \, \right] + \frac{1}{6} \ c_{\text{Y}} \ \frac{1}{m_{\text{D}}^4} \ \overline{y_u}^{\text{i2i3}} \ y_u^{\text{i1i4}}
                                                                                                                                                                                          \left(\widetilde{\mu}\;\overline{y_e}^{pr}\;\left(a_e^{\;pr}\;\left(-2\;s_{_Y}\;c_{_Y}^{\;2}+s_{_Y}^{\;3}\right)\;-\widetilde{\mu}\;c_{_Y}\;y_e^{\;pr}\;\left(c_{_Y}^{\;2}-2\;s_{_Y}^{\;2}\right)\right)\;+
                                                                                                                                                                                                                                                       s_{\gamma} \; \overline{a_{e}}^{pr} \; \left( -3 \; s_{\gamma} \; c_{\gamma} \; a_{e}^{\; pr} \; + \tilde{\mu} \; y_{e}^{\; pr} \; \left( -2 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \right) \; \mathsf{LF}_{1,1,0} \left[ \, \mathsf{m}_{\bar{e}}^{\; r} \; , \; \mathsf{m}_{\bar{l}}^{\; p} \, \right] \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; c_{\gamma} \; \frac{1}{m_{e}^{\; 2}} \; \overline{y_{u}}^{i1i4} \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; 
                                                                                                                                                                                          \left(\widetilde{\mu}\,\overline{y_e}^{pr}\,\left(a_e^{\,pr}\,\left(c_{_{Y}}^{\,2}-s_{_{Y}}^{\,2}\right)\,-2\,s_{_{Y}}\,\widetilde{\mu}\,\,c_{_{Y}}\,y_e^{\,pr}\right)\,+\,\overline{a_e}^{pr}\,\left(2\,s_{_{Y}}\,c_{_{Y}}\,a_e^{\,pr}\,+\,\widetilde{\mu}\,\,y_e^{\,pr}\,\left(c_{_{Y}}^{\,2}-s_{_{Y}}^{\,2}\right)\right)\right)
                                                                                                                                                                                  \mathsf{LF_{2,1,0}}\big[\mathsf{m}_{\bar{l}}^{\mathsf{p}},\,\mathsf{m}_{\bar{e}}^{\mathsf{r}}\big] \,+\, \tfrac{1}{6}\,\, \mathsf{s}_{\scriptscriptstyle Y}\,\, \mathsf{c}_{\scriptscriptstyle Y}\,\, \tfrac{1}{\mathsf{m}_{\scriptscriptstyle g}^{\mathsf{2}}}\,\, \overline{\mathsf{y}_{\mathsf{u}}}^{\mathsf{i2i3}}\,\, \mathsf{y}_{\mathsf{u}}^{\,\,\mathsf{i1i4}}\,\, \left(\widetilde{\mu}\,\, \overline{\mathsf{y}_{\mathsf{e}}}^{\mathsf{pr}}\,\, \left(\mathsf{a}_{\mathsf{e}}^{\,\,\mathsf{pr}}\,\, \left(\mathsf{-}\,\mathsf{c}_{\scriptscriptstyle Y}^{\,\,2} + \mathsf{s}_{\scriptscriptstyle Y}^{\,\,2}\right) \,+\, 2\,\, \mathsf{s}_{\scriptscriptstyle Y}\,\widetilde{\mu}\,\, \mathsf{c}_{\scriptscriptstyle Y}\,\, \mathsf{y}_{\mathsf{e}}^{\,\mathsf{pr}}\right) \,+\, 2\,\, \mathsf{s}_{\scriptscriptstyle Y}\,\widetilde{\mu}\,\, \mathsf{c}_{\scriptscriptstyle Y}\,\, \mathsf{y}_{\mathsf{e}}^{\,\,\mathsf{pr}}\right) \,+\, 2\,\, \mathsf{s}_{\scriptscriptstyle Y}\,\, \mathsf{p}_{\mathsf{u}}^{\,\,\mathsf{u}}\,\, \mathsf{e}_{\scriptscriptstyle Y}^{\,\,\mathsf{u}}\,\, \mathsf{e}_{\scriptscriptstyle Y}^{\,\mathsf{u}}\,\, \mathsf{e}_{\scriptscriptstyle Y}^{\,\,\mathsf{u}}\,\, \mathsf{e}_{\scriptscriptstyle Y}^{\,\,\mathsf{u}}\,\, \mathsf{e}_{\scriptscriptstyle Y}^{
                                                                                                                                                                                                                                                       \overline{a_{e}}^{\text{pr}}\left(-2\;s_{\gamma}\;c_{\gamma}\;a_{e}^{\;\text{pr}}+\widetilde{\mu}\;y_{e}^{\;\text{pr}}\left(-\,c_{\gamma}^{\;2}+\,s_{\gamma}^{\;2}\right)\right)\right)\;\mathsf{LF_{3,1,-1}}\!\left[\,\mathsf{m_{\tilde{l}}}^{\;p}\,,\;\mathsf{m_{\tilde{e}}}^{\;r}\,\right]\;-
                                                                                                                                                          \frac{1}{6} \; s_{\gamma}^{\; 2} \; \overline{y_{u}^{\mathsf{i2i3}}} \; y_{u}^{\; \mathsf{i1i4}} \; \left( - \, c_{\gamma} \; \overline{a_{e}}^{\mathsf{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; \overline{y_{e}}^{\mathsf{pr}} \right) \; \left( - \, c_{\gamma} \; a_{e}^{\; \mathsf{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \mathsf{pr}} \right) \; \mathsf{LF}_{\mathsf{3,1,0}} \left[ \, \mathsf{m}_{\widetilde{\mathsf{l}}}^{\; \mathsf{p}} \, , \; \mathsf{m}_{\widetilde{\mathsf{e}}}^{\; \mathsf{r}} \, \right] \; + \; \mathsf{m}_{\widetilde{\mathsf{e}}}^{\; \mathsf{pr}} \; \mathsf{l}_{\mathsf{pr}} \; \mathsf{l}_{\mathsf{pr}
                                                                                                                                                                                      = s_{\gamma}^2 \, \overline{y_u}^{\text{i2i3}} \, y_u^{\text{i1i4}} \, \left( - \, c_{\gamma} \, \overline{a_e}^{\text{pr}} + s_{\gamma} \, \widetilde{\mu} \, \overline{y_e}^{\text{pr}} \right) \, \left( - \, c_{\gamma} \, a_e^{\text{pr}} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\text{pr}} \right) \, \text{LF}_{4,1,-1} \left[ \, m_{\widetilde{l}}^{\,\, p} \, , \, m_{\widetilde{e}}^{\,\, r} \, \right] - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right] \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu} \, y_e^{\,\, pr} \right) \, \left( - \, c_{\gamma} \, a_e^{\,\, pr} + s_{\gamma} \, \widetilde{\mu
                                                                                                                                                          \frac{1}{3} \; s_{\gamma}^{\; 2} \; \overline{y_{u}}^{\text{i2i3}} \; y_{u}^{\; \text{i1i4}} \; \left( - \, c_{\gamma} \; \overline{a_{e}}^{\text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; \overline{y_{e}}^{\text{pr}} \right) \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\text{pr}} \right) \; \text{LF}_{\text{5,1,-2}} \left[ \, m_{\tilde{l}}^{\; p} \, , \; m_{\tilde{e}}^{\; r} \, \right] \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; \text{LF}_{\text{5,1,-2}} \left[ \, m_{\tilde{l}}^{\; p} \, , \; m_{\tilde{e}}^{\; r} \, \right] \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; \text{LF}_{\text{5,1,-2}} \left[ \, m_{\tilde{l}}^{\; p} \, , \; m_{\tilde{e}}^{\; r} \, \right] \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; \text{LF}_{\text{5,1,-2}} \left[ \, m_{\tilde{l}}^{\; p} \, , \; m_{\tilde{e}}^{\; r} \, \right] \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; \text{LF}_{\text{5,1,-2}} \left[ \, m_{\tilde{l}}^{\; p} \, , \; m_{\tilde{e}}^{\; r} \, \right] \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} + \, s_{\gamma} \; a_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^{\; \text{pr}} \right) \; + \; \left( - \, c_{\gamma} \; a_{e}^
                                                                                                                                                          \frac{1}{2} s_{\gamma} c_{\gamma} \frac{1}{m_{\text{p}}^2} \overline{y_u}^{\text{i2i3}} y_u^{\text{i1i4}}
                                                                                                                                                                                          \left(\widetilde{\mu}\,\overline{y_d}^{pr}\,\left(a_d^{\,pr}\,\left(c_{_{Y}}{}^2-s_{_{Y}}{}^2\right)-2\,s_{_{Y}}\,\widetilde{\mu}\,\,c_{_{Y}}\,y_d^{\,pr}\right)+\overline{a_d}^{pr}\,\left(2\,s_{_{Y}}\,c_{_{Y}}\,a_d^{\,pr}+\widetilde{\mu}\,y_d^{\,pr}\,\left(c_{_{Y}}{}^2-s_{_{Y}}{}^2\right)\right)\right)
                                                                                                                                                                                   \mathsf{LF_{2,1,0}} \big[ \, \mathsf{m_{\tilde{q}}}^{\, p} \, , \, \, \mathsf{m_{\tilde{d}}}^{\, r} \, \big] \, + \, \frac{1}{2} \, \, \mathsf{s_{\scriptscriptstyle Y}} \, \, \mathsf{c_{\scriptscriptstyle Y}} \, \, \frac{1}{\mathsf{m_0}^2} \, \, \overline{\mathsf{y_u}}^{\, i2i3} \, \, \mathsf{y_u}^{\, i1i4} \, \, \left( \widetilde{\mu} \, \, \overline{\mathsf{y_d}}^{\, pr} \, \, \left( \mathsf{a_d}^{\, pr} \, \left( - \, \mathsf{c_{\scriptscriptstyle Y}}^2 \, + \, \mathsf{s_{\scriptscriptstyle Y}}^2 \right) \, + \, 2 \, \, \mathsf{s_{\scriptscriptstyle Y}} \, \widetilde{\mu} \, \, \mathsf{c_{\scriptscriptstyle Y}} \, \, \mathsf{y_d}^{\, pr} \right) \, + \, 2 \, \, \mathsf{s_{\scriptscriptstyle Y}} \, \, \widetilde{\mu} \, \, \, \mathsf{c_{\scriptscriptstyle Y}} \, \, \mathsf{y_d}^{\, pr} \, \left( \mathsf{a_d}^{\, pr} \, \left( - \, \mathsf{c_{\scriptscriptstyle Y}}^2 \, + \, \mathsf{s_{\scriptscriptstyle Y}}^2 \right) \, + \, 2 \, \, \mathsf{s_{\scriptscriptstyle Y}} \, \, \widetilde{\mu} \, \, \, \mathsf{c_{\scriptscriptstyle Y}} \, \, \mathsf{y_d}^{\, pr} \right) \, + \, \mathsf{v_{\scriptscriptstyle Y}} \, \, \mathsf{v_{\scriptscriptstyle Y}} \, \, \mathsf{y_{\scriptscriptstyle Y}} \, \, \mathsf{v_{\scriptscriptstyle Y}} \, \,
                                                                                                                                                                                                                                                       \overline{a_d}^{\text{pr}} \left( -2 \; s_{\gamma} \; c_{\gamma} \; a_d^{\text{pr}} + \widetilde{\mu} \; y_d^{\text{pr}} \; \left( - \, c_{\gamma}^{\; 2} + \, s_{\gamma}^{\; 2} \right) \right) \right) \; \text{LF}_{3,1,-1} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; - \; \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{q}}^{\;
                                                                                                                                                          \frac{1}{2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}^{\mathsf{i2i3}}} \; y_{u}^{\; \mathsf{i1i4}} \; \left( - \, c_{\gamma} \; \overline{a_{d}}^{\mathsf{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\mathsf{pr}} \right) \; \left( - \, c_{\gamma} \; a_{d}^{\mathsf{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{d}^{\mathsf{pr}} \right) \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; y_{d}^{\mathsf{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{d}^{\mathsf{pr}} \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; y_{d}^{\mathsf{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{d}^{\mathsf{pr}} \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; y_{d}^{\mathsf{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{d}^{\mathsf{pr}} \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{q}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{q}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{q}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{q}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{q}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{q}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{q}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{q}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{q}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{q}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{q}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{q}}^{\; r} \, \right] \; \mathsf{LF_{3,1,0}} 
                                                                                                                                                          \frac{3}{2} \; s_{\gamma}^{\; 2} \; \overline{y_{u}^{\mathsf{i2i3}}} \; y_{u}^{\; \mathsf{i1i4}} \; \left( - \, c_{\gamma} \; \overline{a_{d}}^{\mathsf{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\mathsf{pr}} \right) \; \left( - \, c_{\gamma} \; a_{d}^{\; \mathsf{pr}} + \, s_{\gamma} \; \widetilde{\mu} \; y_{d}^{\; \mathsf{pr}} \right) \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{d}}}^{\; \mathsf{r}} \, \right] \; - \; \mathsf{m_{\tilde{d}}}^{\; \mathsf{pr}} \; \mathsf{m_{\tilde{d}}}^{\; \mathsf{pr}} \; \mathsf{m_{\tilde{d}}}^{\; \mathsf{pr}} \; \mathsf{m_{\tilde{d}}}^{\; \mathsf{pr}} \right) \; \mathsf{LF_{4,1,-1}} \left[ \, \mathsf{m_{\tilde{q}}}^{\; \mathsf{p}} \, , \; \mathsf{m_{\tilde{d}}}^{\; \mathsf{pr}} \, \right] \; - \; \mathsf{m_{\tilde{d}}}^{\; \mathsf{pr}} \; \mathsf{m_{\tilde{d}}}^{\; \mathsf{
                                                                                                                                                  s_{\text{Y}}^{2}\,\overline{y_{\text{u}}}^{\text{i2i3}}\,y_{\text{u}}^{\,\,\text{i1i4}}\,\left(-\,c_{\text{Y}}\,\overline{a_{\text{d}}}^{\text{pr}}\,+\,s_{\text{Y}}\,\widetilde{\mu}\,\overline{y_{\text{d}}}^{\text{pr}}\right)\,\left(-\,c_{\text{Y}}\,a_{\text{d}}^{\,\,\text{pr}}\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\right)\,LF_{5,1,-2}\left[\,\mathsf{m}_{\tilde{q}}^{\,\,\text{p}}\,,\,\,\mathsf{m}_{\tilde{d}}^{\,\,\text{r}}\,\right]\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\left(-\,c_{\text{Y}}\,a_{\text{d}}^{\,\,\text{pr}}\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\right)\,LF_{5,1,-2}\left[\,\mathsf{m}_{\tilde{q}}^{\,\,\text{p}}\,,\,\,\mathsf{m}_{\tilde{d}}^{\,\,\text{r}}\,\right]\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\left(-\,c_{\text{Y}}\,a_{\text{d}}^{\,\,\text{pr}}\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\right)\,LF_{5,1,-2}\left[\,\mathsf{m}_{\tilde{q}}^{\,\,\text{p}}\,,\,\,\mathsf{m}_{\tilde{d}}^{\,\,\text{r}}\,\right]\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\left(-\,c_{\text{Y}}\,a_{\text{d}}^{\,\,\text{pr}}\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\right)\,LF_{5,1,-2}\left[\,\mathsf{m}_{\tilde{q}}^{\,\,\text{p}}\,,\,\,\mathsf{m}_{\tilde{d}}^{\,\,\text{r}}\,\right]\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\left(-\,c_{\text{Y}}\,a_{\text{d}}^{\,\,\text{pr}}\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\right)\,LF_{5,1,-2}\left[\,\mathsf{m}_{\tilde{q}}^{\,\,\text{p}}\,,\,\,\mathsf{m}_{\tilde{d}}^{\,\,\text{pr}}\,\right]\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\left(-\,c_{\text{Y}}\,a_{\text{d}}^{\,\,\text{pr}}\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\right)\,LF_{5,1,-2}\left[\,\mathsf{m}_{\tilde{q}}^{\,\,\text{pr}}\,,\,\,\mathsf{m}_{\tilde{d}}^{\,\,\text{pr}}\,\right]\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\left(-\,s_{\text{Y}}\,a_{\text{d}}^{\,\,\text{pr}}\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\right)\,LF_{5,1,-2}\left[\,\mathsf{m}_{\tilde{q}}^{\,\,\text{pr}}\,,\,\,\mathsf{m}_{\tilde{d}}^{\,\,\text{pr}}\,\right]\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\left(-\,s_{\text{Y}}\,a_{\text{d}}^{\,\,\text{pr}}\,+\,s_{\text{Y}}\,\widetilde{\mu}\,y_{\text{d}}^{\,\,\text{pr}}\right)\,LF_{5,1,-2}\left[\,\mathsf{m}_{\tilde{q}}^{\,\,\text{pr}}\,,\,\,\mathsf{m}_{\tilde{d}}^{\,\,\text{pr}}\,\right]\,
                                                                                                                                                          \frac{1}{2} \; c_{\gamma} \; \frac{1}{m_{\text{o}}^4} \; \overline{y_u}^{\text{i2i3}} \; y_u^{\text{i1i4}} \; \left( s_{\gamma} \; \widetilde{\mu} \; \overline{y_u}^{\text{pr}} \; \left( a_u^{\text{pr}} \; \left( -2 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right. \\ \left. -3 \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; y_u^{\text{pr}} \right) \; + \; \left( a_u^{\text{pr}} \; \left( -2 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \; \\ \left. -3 \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; y_u^{\text{pr}} \right) \; + \; \left( a_u^{\text{pr}} \; \left( -2 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \; \\ \left. -3 \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; y_u^{\text{pr}} \right) \; + \; \left( a_u^{\text{pr}} \; \left( -2 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \; \\ \left. -3 \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; y_u^{\text{pr}} \right) \; + \; \left( a_u^{\text{pr}} \; \left( -2 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \; \\ \left. -3 \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; y_u^{\text{pr}} \right) \; + \; \left( a_u^{\text{pr}} \; \left( -2 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \; \\ \left. -3 \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; y_u^{\text{pr}} \right) \; + \; \left( a_u^{\text{pr}} \; \left( -2 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \; \\ \left. -3 \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; y_u^{\text{pr}} \right) \; + \; \left( a_u^{\text{pr}} \; \left( -2 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \; \\ \left. -3 \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; y_u^{\text{pr}} \right) \; + \; \left( a_u^{\text{pr}} \; \left( -2 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \; \\ \left. -3 \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; y_u^{\text{pr}} \right) \; + \; \left( a_u^{\text{pr}} \; \left( -2 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \; \\ \left. -3 \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; y_u^{\text{pr}} \right) \; + \; \left( a_u^{\text{pr}} \; \left( -2 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \right) \; \\ \left. -3 \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; \widetilde{\mu} \; \widetilde{
                                                                                                                                                                                                                                                       \frac{1}{6} \ \frac{1}{m_{_{\bar{q}}}^2} \ c_{_{\Upsilon}}{}^2 \ \overline{y_u}^{pri} \ \overline{y_u}^{i2i3} \ y_u^{pi4} \ y_u^{i1r} \ \mathsf{LF}_{1,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] - \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi3} \ y_u^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi3} \ y_u^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi3} \ y_u^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi3} \ y_u^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi3} \ y_u^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi3} \ y_u^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \overline{y_u}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1{}^2 \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ \mathsf{LF}_{2,1,0} \left[ m_{\bar{q}}{}^p \text{, } \widetilde{\mu} \right] \ \delta_{i1i2} + \frac
                                                                                                                                                              \frac{1}{108} \; {g_{1}}^{2} \; \overline{y_{u}}^{\text{pi3}} \; y_{u}^{\text{pi4}} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\bar{q}}^{\; p}, \; \widetilde{\mu} \, \big] \; \delta_{\text{ili2}} + \frac{1}{108} \; {g_{1}}^{2} \; \overline{y_{u}}^{\text{pi3}} \; y_{u}^{\text{pi4}} \; \mathsf{LF}_{3,1,-1} \big[ \mathsf{m}_{\bar{q}}^{\; p}, \; \widetilde{\mu} \, \big] \; \delta_{\text{ili2}} + \frac{1}{108} \; {g_{1}}^{2} \; \overline{y_{u}}^{\text{pi3}} \; y_{u}^{\text{pi4}} \; \mathsf{LF}_{3,1,-1} \big[ \mathsf{m}_{\bar{q}}^{\; p}, \; \widetilde{\mu} \, \big] \; \delta_{\text{ili2}} + \frac{1}{108} \; {g_{1}}^{2} \; \overline{y_{u}}^{\text{pi3}} \; y_{u}^{\text{pi4}} \; \mathsf{LF}_{3,1,-1} \big[ \mathsf{m}_{\bar{q}}^{\; p}, \; \widetilde{\mu} \, \big] \; \delta_{\text{ili2}} + \frac{1}{108} \; {g_{1}}^{2} \; \overline{y_{u}}^{\text{pi3}} \; y_{u}^{\text{pi4}} \; \mathsf{LF}_{3,1,-1} \big[ \mathsf{m}_{\bar{q}}^{\; p}, \; \widetilde{\mu} \, \big] \; \delta_{\text{ili2}} + \frac{1}{108} \; {g_{1}}^{2} \; \overline{y_{u}}^{\text{pi3}} \; y_{u}^{\text{pi4}} \; \mathsf{LF}_{3,1,-1} \big[ \mathsf{m}_{\bar{q}}^{\; p}, \; \widetilde{\mu} \, \big] \; \delta_{\text{ili2}} + \frac{1}{108} \; {g_{1}}^{2} \; \overline{y_{u}}^{\text{pi3}} \; y_{u}^{\text{pi4}} \; \mathsf{LF}_{3,1,-1} \big[ \mathsf{m}_{\bar{q}}^{\; p}, \; \widetilde{\mu} \, \big] \; \delta_{\text{ili2}} + \frac{1}{108} \; \overline{y_{u}}^{\text{pi4}} \; \overline{y_{u}}^{\text{pi4}
                                                                                                                                                              \frac{1}{6} \ \frac{1}{m_0^2} \ c_{\gamma}^2 \ \overline{y_u}^{\text{ri3}} \ \overline{y_u}^{\text{i2p}} \ y_u^{\text{rp}} \ y_u^{\text{i1i4}} \ \mathsf{LF}_{1,1,0} \left[ \mathsf{m}_{\bar{\mathsf{q}}}^{\, \mathsf{r}} \, , \ \widetilde{\mu} \, \right] - \frac{1}{486} \ \mathsf{g_1}^4 \ \mathsf{LF}_{2,1,0} \left[ \mathsf{m}_{\bar{\mathsf{q}}}^{\, \mathsf{i2}} \, , \ \mathsf{m_1} \, \right] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} + \frac{1}{4} \left[ \mathsf{m}_{1,1,0} \right[ \mathsf{m}_{1,1,0} \left[ \mathsf
                                                                                                                                                          \tfrac{1}{972}\ g_1{}^4\ \mathsf{LF}_{3,1,-1}\big[\mathsf{m_{\hat{q}}}^{\dot{1}2},\ \mathsf{m_1}\big]\ \delta_{\dot{1}\dot{1}\dot{2}}\ \delta_{\dot{1}3\dot{1}4} - \tfrac{1}{18}\ g_1{}^2\ g_2{}^2\ \mathsf{LF}_{2,1,0}\big[\mathsf{m_{\hat{q}}}^{\dot{-}\dot{1}2},\ \mathsf{m_2}\big]\ \delta_{\dot{1}\dot{1}\dot{2}}\ \delta_{\dot{1}3\dot{1}4} + t_1 + t_2 + t_3 + t_3 + t_4 + t_3 + t_3 + t_4 + t_3 + t_4 + t_5 + t_5
                                                                                                                                                          \frac{1}{36}\ g_{1}{}^{2}\ g_{2}{}^{2}\ \mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\bar{q}}{}^{\mathsf{i}\,2},\ \mathsf{m}_{2}\big]\ \delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\ \delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4} - \frac{8}{81}\ g_{1}{}^{2}\ g_{3}{}^{2}\ \mathsf{LF}_{2,1,0}\big[\mathsf{m}_{\bar{q}}{}^{\mathsf{i}\,2},\ \mathsf{m}_{3}\big]\ \delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\ \delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4} + \frac{1}{2}\, g_{1}{}^{2}\ g_{2}{}^{2}\ \mathsf{LF}_{2,1,0}\big[\mathsf{m}_{\bar{q}}{}^{\mathsf{i}\,2},\ \mathsf{m}_{3}\big]\ \delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\ \delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4} + \frac{1}{2}\, g_{1}{}^{2}\ g_{2}{}^{2}\ \mathsf{LF}_{2,1,0}\big[\mathsf{m}_{\bar{q}}{}^{\mathsf{i}\,2},\ \mathsf{m}_{3}\big]\ \delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\ \delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4} + \frac{1}{2}\, g_{1}{}^{2}\ g_{1}{}^{2}\ g_{2}{}^{2}\ \mathsf{LF}_{2,1,0}\big[\mathsf{m}_{\bar{q}}{}^{\mathsf{i}\,2},\ \mathsf{m}_{3}\big]\ \delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\ \delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4} + \frac{1}{2}\, g_{1}{}^{2}\ g_{2}{}^{2}\ \mathsf{LF}_{2,1,0}\big[\mathsf{m}_{\bar{q}}{}^{\mathsf{i}\,2},\ \mathsf{m}_{3}\big]\ \delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\ \delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4} + \frac{1}{2}\, g_{1}{}^{2}\ g_{1}{}^{2}\ g_{2}{}^{2}\ \mathsf{LF}_{2,1,0}\big[\mathsf{m}_{\bar{q}}{}^{\mathsf{i}\,2},\ \mathsf{m}_{3}\big]\ \delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\ \delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4} + \frac{1}{2}\, g_{1}{}^{2}\ g_{
                                                                                                                                                          \frac{4}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF_{3,1,-1}}\!\left[\mathsf{m_{\tilde{q}}}^{\dot{1}2}\,,\;\mathsf{m_{3}}\right]\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\;+\;\frac{1}{12}\;\frac{1}{\mathsf{m_{o}}^{2}}\;c_{\gamma}^{2}\;\overline{\mathsf{y_{u}}}^{r\dot{1}\dot{3}}\;\overline{\mathsf{y_{u}}}^{\dot{1}2p}\;\mathsf{y_{u}}^{rp}\;\mathsf{y_{u}}^{\dot{1}\dot{1}\dot{4}}\;\mathsf{LF_{1,1,0}}\!\left[\mathsf{m_{\tilde{u}}}^{p}\,,\;\widetilde{\mu}\right]\;-\;2\,\mathrm{supp}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{u}}^{2}\;\mathsf{v_{
                                                                                                                                                              \frac{4}{27} \; g_1{}^2 \; \overline{y_u}{}^{i2p} \; y_u{}^{i1p} \; \mathsf{LF}_{2,1,0} \big[ \mathsf{m}_{\tilde{u}}{}^p, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_1{}^2 \; \overline{y_u}{}^{i2p} \; y_u{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\tilde{u}}{}^p, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_1{}^2 \; \overline{y_u}{}^{i2p} \; y_u{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\tilde{u}}{}^p, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_1{}^2 \; \overline{y_u}{}^{i2p} \; y_u{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\tilde{u}}{}^p, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_1{}^2 \; \overline{y_u}{}^{i2p} \; y_u{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\tilde{u}}{}^p, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_1{}^2 \; \overline{y_u}{}^{i2p} \; y_u{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\tilde{u}}{}^p, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_1{}^2 \; \overline{y_u}{}^{i2p} \; y_u{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\tilde{u}}{}^p, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_1{}^2 \; \overline{y_u}{}^{i2p} \; y_u{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\tilde{u}}{}^p, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_1{}^2 \; \overline{y_u}{}^{i2p} \; y_u{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\tilde{u}}{}^p, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_1{}^2 \; \overline{y_u}{}^{i2p} \; y_u{}^{i1p} \; \mathsf{LF}_{2,2,-1} \big[ \mathsf{m}_{\tilde{u}}{}^p, \; \widetilde{\mu} \big] \; \delta_{i3i4} + \frac{2}{27} \; g_1{}^2 \; \overline{y_u}{}^{i2p} \; y_u{}^{i2p} \; y_u{}^{i2p}
                                                                                                                                                          \frac{2}{27} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ LF_{3,1,-1} \big[ m_{\bar{u}}^{-p}, \ \widetilde{\mu} \, \big] \ \delta_{i3i4} + \frac{1}{2} \ s_\gamma \ c_\gamma \ \frac{1}{m_{\bar{u}}^2} \ \overline{y_u}{}^{i2i3} \ y_u{}^{i1i4}
                                                                                                                                                                                          \left(\widetilde{\mu}\;\overline{y_{u}}^{pr}\;\left(\left.a_{u}^{\;pr}\;\left(\left.c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\right.\right.\right.\\ \left.+\left.2\left.s_{\gamma}\;\widetilde{\mu}\;c_{\gamma}\;y_{u}^{\;pr}\right)\right.\\ \left.+\left.\overline{a_{u}}^{pr}\;\left(-2\left.s_{\gamma}\;c_{\gamma}\;a_{u}^{\;pr}+\widetilde{\mu}\;y_{u}^{\;pr}\;\left(\left.c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\right.\right)\right)\right)
                                                                                                                                                                                  \overline{a_u}^{\text{pr}} \left( 2 \; \textbf{s}_{\scriptscriptstyle Y} \; \textbf{c}_{\scriptscriptstyle Y} \; \textbf{a}_u^{\; \text{pr}} \; + \widetilde{\mu} \; \textbf{y}_u^{\; \text{pr}} \; \left( - \, \textbf{c}_{\scriptscriptstyle Y}^{\; 2} \, + \, \textbf{s}_{\scriptscriptstyle Y}^{\; 2} \right) \right) \right) \; \text{LF}_{\textbf{3,1,-1}} \big[ \, \textbf{m}_{\tilde{\textbf{u}}}^{\; \; \text{r}} \, , \; \textbf{m}_{\tilde{\textbf{q}}}^{\; \text{p}} \, \big] \; - \; \text{The sum of the su
                                                                                                                                                                                      s_{\gamma}^{2} \, \overline{y_{u}}^{\text{i2i3}} \, y_{u}^{\text{i1i4}} \, \left( s_{\gamma} \, \overline{a_{u}}^{\text{pr}} - \widetilde{\mu} \, c_{\gamma} \, \overline{y_{u}}^{\text{pr}} \right) \, \left( s_{\gamma} \, a_{u}^{\text{pr}} - \widetilde{\mu} \, c_{\gamma} \, y_{u}^{\text{pr}} \right) \, \text{LF}_{3,1,0} \left[ m_{\widetilde{u}}^{\text{r}}, \, m_{\widetilde{q}}^{\text{p}} \right] + c_{\gamma} \, a_{u}^{\text{pr}} + c_{\gamma} \, a_{u}^{\text{pr}} + c_{\gamma} \, a_{u}^{\text{pr}} \right] + c_{\gamma} \, a_{u}^{\text{pr}} + c_{\gamma}
                                                                                                                                                              \frac{3}{2} \; \mathsf{S_{\gamma}}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \; \mathsf{y_u}^{\mathsf{i1i4}} \; \left( \mathsf{S_{\gamma}} \; \overline{\mathsf{a_u}}^{\mathsf{pr}} - \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \overline{\mathsf{y_u}}^{\mathsf{pr}} \right) \; \left( \mathsf{S_{\gamma}} \; \mathsf{a_u}^{\mathsf{pr}} - \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{y_u}^{\mathsf{pr}} \right) \; \mathsf{LF_{4,1,-1}} \left[ \mathsf{m_{\tilde{u}}}^{\mathsf{r}} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{p}} \right] \; - \; \mathsf{m_{\tilde{q}}}^{\mathsf{p}} \; \mathsf{m_{\tilde{q}}} \; \mathsf{m_{\tilde{q}}}^{\mathsf{p}} \; \mathsf{m_{\tilde{q}}} \; \mathsf{m_{\tilde{q
                                                                                                                                                      s_{\gamma}^{2} \, \overline{y_{u}}^{i2i3} \, y_{u}^{i1i4} \, \left( s_{\gamma} \, \overline{a_{u}}^{pr} - \widetilde{\mu} \, c_{\gamma} \, \overline{y_{u}}^{pr} \right) \, \left( s_{\gamma} \, a_{u}^{pr} - \widetilde{\mu} \, c_{\gamma} \, y_{u}^{pr} \right) \, \mathsf{LF}_{5,1,-2} \left[ m_{\tilde{u}}^{-r} \, , \, m_{\tilde{q}}^{-p} \right] \, + \, c_{\gamma} \, m_{\tilde{q}}^{-p} \, \left( s_{\gamma} \, a_{u}^{pr} - \widetilde{\mu} \, c_{\gamma} \, y_{u}^{pr} \right) \, \mathsf{LF}_{5,1,-2} \left[ m_{\tilde{u}}^{-r} \, , \, m_{\tilde{q}}^{-p} \right] \, + \, c_{\gamma} \, m_{\tilde{q}}^{-p} \, \left( s_{\gamma} \, a_{u}^{pr} - \widetilde{\mu} \, c_{\gamma} \, y_{u}^{pr} \right) \, \mathsf{LF}_{5,1,-2} \left[ m_{\tilde{u}}^{-r} \, , \, m_{\tilde{q}}^{-p} \right] \, + \, c_{\gamma} \, m_{\tilde{q}}^{-p} 
                                                                                                                                                          \frac{1}{12}~\frac{1}{{m_e}^2}~c_{\gamma}^{~2}~\overline{y_u}^{pr}~\overline{y_u}^{i2i3}~y_u^{pi4}~y_u^{i1r}~\mathsf{LF_{1,1,0}}\left[\,m_{\tilde{u}}^{~r}\,,~\widetilde{\mu}\,\right]~-
                                                                                                                                                              \frac{8}{243} \; \mathbf{g_1}^4 \; \mathsf{LF_{2,1,0}} \big[ \, \mathbf{m_{\tilde{u}}}^{\, \text{i}^4}, \; \mathbf{m_1} \, \big] \; \delta_{\, \text{i}\, \text{i}\, \text{i}\, 2} \; \delta_{\, \text{i}\, \text{3}\, \text{i}\, 4} \; + \; \frac{4}{243} \; \mathbf{g_1}^4 \; \mathsf{LF_{3,1,-1}} \big[ \, \mathbf{m_{\tilde{u}}}^{\, \text{i}\, 4}, \; \mathbf{m_1} \, \big] \; \delta_{\, \text{i}\, \text{1}\, \text{i}\, 2} \; \delta_{\, \text{i}\, \text{3}\, \text{i}\, 4} \; - \; \frac{4}{243} \; \mathbf{g_1}^4 \; \mathsf{LF_{3,1,-1}} \big[ \, \mathbf{m_{\tilde{u}}}^{\, \text{i}\, 4}, \; \mathbf{m_1} \, \big] \; \delta_{\, \text{i}\, \text{i}\, \text{i}\, 2} \; \delta_{\, \text{i}\, \text{3}\, \text{i}\, 4} \; - \; \frac{4}{243} \; \mathbf{g_1}^4 \; \mathsf{LF_{3,1,-1}} \big[ \, \mathbf{m_{\tilde{u}}}^{\, \text{i}\, 4}, \; \mathbf{m_1} \, \big] \; \delta_{\, \text{i}\, \text{i}\, \text{i}\, 2} \; \delta_{\, \text{i}\, \text{3}\, \text{i}\, 4} \; - \; \frac{4}{243} \; \mathbf{g_1}^4 \; \mathsf{LF_{3,1,-1}} \big[ \, \mathbf{m_{\tilde{u}}}^{\, \text{i}\, 4}, \; \mathbf{m_1} \, \big] \; \delta_{\, \text{i}\, \text{i}\, \text{i}\, 2} \; \delta_{\, \text{i}\, \text{3}\, \text{i}\, 4} \; - \; \frac{4}{243} \; \mathbf{g_1}^4 \; \mathsf{LF_{3,1,-1}} \big[ \, \mathbf{m_{\tilde{u}}}^{\, \text{i}\, 4}, \; \mathbf{m_1} \, \big] \; \delta_{\, \text{i}\, \text{i}\, 1} \; \delta_{\, \text{i}\, 1} \; \delta_{\,
                                                                                                                                                          \frac{8}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{2,1,0}\big[\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4},\;\mathsf{m}_{3}\big]\;\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\;+\;\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4},\;\mathsf{m}_{3}\big]\;\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}3\dot{1}\dot{4}}\;+\;\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4},\;\mathsf{m}_{3}\big]\;\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}3\dot{1}\dot{4}}\;+\;\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4},\;\mathsf{m}_{3}\big]\;\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}3\dot{1}\dot{4}}\;+\;\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4},\;\mathsf{m}_{3}\big]\;\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}3\dot{1}\dot{4}}\;+\;\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4},\;\mathsf{m}_{3}\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\;+\;\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4},\;\mathsf{m}_{3}\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\;+\;\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4},\;\mathsf{m}_{3}\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\;+\;\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4},\;\mathsf{m}_{3}\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\;+\;\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4},\;\mathsf{m}_{3}\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\;+\;\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4},\;\mathsf{m}_{3}\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\;+\;\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4},\;\mathsf{m}_{3}\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\;+\;\frac{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\dot{1}\dot{1}\dot{1}\dot{1}}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{m}_{\dot{1}\dot{1}\dot{1}}\;\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-1}\big[\mathsf{LF}_{3,1,-
                                                                                                                                                          \frac{1}{3} \text{ m}_1 \text{ s}_{\gamma} \, \widetilde{\mu} \text{ c}_{\gamma} \text{ g}_1^2 \, \frac{1}{\text{m}_0^2} \, \overline{\text{y}_u}^{\text{i2i3}} \, \text{y}_u^{\text{i1i4}} \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, \text{LF}_{2,\text{1,0}} \left[\widetilde{\mu} \, , \, \text{m}_1 \right] \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{s}_{\gamma}^{\ 2}\right) \, + \, \left(\text{c}_{\gamma}^{\ 2} - \text{c}_{\gamma}^{\ 2}\right) \, + \,
                                                                                                                                                              ^{2} s_{\gamma}^{3} \overline{y_{u}}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \bar{g}^{12i3} y_u^{i1i4} LF_{3,1,0}[\tilde{\mu}, m_1] - \frac{2}{3} g_1^2 s_{\gamma}^2 \overline{y_u^{i2i3}} y_u^{i1i4} LF_{4,1,-2}[\tilde{\mu}, m_1] - \frac{2}{3} g_1^2 s_{\gamma}^2 \overline{y_u^{i2i3}} y_u^{i1i4} LF_{4,1,-2}[\tilde{\mu}, m_1]
                                                                                                                                              \mathsf{m_1}\,\tilde{\mu}\,\,\mathsf{c_{\gamma}}\,\,\mathsf{g_{1}}^2\,\,\mathsf{s_{\gamma}}^3\,\,\overline{\mathsf{y_u}}^{\mathsf{i2i3}}\,\,\mathsf{y_u}^{\mathsf{i1i4}}\,\,\mathsf{LF_{4,1,-1}}\,[\,\tilde{\mu}\,,\,\,\mathsf{m_1}\,]\,\,+\,\frac{1}{3}\,\,\mathsf{g_{1}}^2\,\,\mathsf{s_{\gamma}}^2\,\,\overline{\mathsf{y_u}}^{\mathsf{i2i3}}\,\,\mathsf{y_u}^{\mathsf{i1i4}}\,\,\mathsf{LF_{5,1,-3}}\,[\,\tilde{\mu}\,,\,\,\mathsf{m_1}\,]\,\,+\,\frac{1}{3}\,\,\mathsf{g_{1}}^2\,\,\mathsf{s_{\gamma}}^2\,\,\overline{\mathsf{y_u}}^{\mathsf{i2i3}}\,\,\mathsf{y_u}^{\mathsf{i1i4}}\,\,\mathsf{LF_{5,1,-3}}\,[\,\tilde{\mu}\,,\,\,\mathsf{m_1}\,]\,\,+\,\frac{1}{3}\,\,\mathsf{g_{1}}^2\,\,\mathsf{s_{\gamma}}^2\,\,\overline{\mathsf{y_u}}^{\mathsf{i2i3}}\,\,\mathsf{y_u}^{\mathsf{i1i4}}\,\,\mathsf{LF_{5,1,-3}}\,[\,\tilde{\mu}\,,\,\,\mathsf{m_1}\,]\,\,+\,\frac{1}{3}\,\,\mathsf{g_{1}}^2\,\,\mathsf{s_{\gamma}}^2\,\,\overline{\mathsf{y_u}}^{\mathsf{i2i3}}\,\,\mathsf{y_u}^{\mathsf{i2i3}}\,\,\mathsf{y_u}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{1}}^{\mathsf{i2i3}}\,\,\mathsf{g_{
                                                                                                                                                          \frac{2}{3} m_1 \, \widetilde{\mu} \, c_{\gamma} \, g_1^2 \, s_{\gamma}^3 \, \overline{y_u^{i2i3}} \, y_u^{i1i4} \, \mathsf{LF}_{5,1,-2} [\widetilde{\mu}, \, m_1] \, + \,
                                                                                                                                              \mathsf{m_2} \; \mathsf{s_{\gamma}} \; \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_2}^2 \; \tfrac{1}{\mathsf{m_0}^2} \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \; \mathsf{y_u}^{\mathsf{i1i4}} \; \left(\mathsf{c_{\gamma}}^2 - \mathsf{s_{\gamma}}^2\right) \; \mathsf{LF_{2,1,0}} \left[\widetilde{\mu} \text{, } \mathsf{m_2}\right] \; + \; \mathsf{h_2}^2 \; \mathsf{h_2}^2 \; \mathsf{h_3}^2 \; \mathsf{h_3}
                                                                                                                                                  {\rm s_{\gamma}}\; g_{2}^{2}\; \frac{1}{{\rm m_{o}}^{2}}\; \overline{{\rm y_{u}}^{\text{i2i3}}}\; {\rm y_{u}}^{\text{i1i4}}\; \left(\, {\rm s_{\gamma}}\; {\rm m_{\Phi}}^{2}\; +\; {\rm m_{2}}\; \widetilde{\mu}\; c_{\gamma}\; \left(\, -\; c_{\gamma}^{2}\; +\; {\rm s_{\gamma}}^{2}\, \right)\, \right)\; LF_{3,1,-1}\left[\, \widetilde{\mu}\; ,\; {\rm m_{2}}\, \right]\; +\; {\rm m_{2}}\; \widetilde{\mu}\; c_{\gamma}\; \left(\, -\; c_{\gamma}^{2}\; +\; c_{\gamma}^{2}\; \right)\; C_{3,1,-1}\left[\, \widetilde{\mu}\; ,\; {\rm m_{2}}\; \right]\; +\; {\rm m_{2}}\; \widetilde{\mu}\; c_{\gamma}\; \left(\, -\; c_{\gamma}^{2}\; +\; c_{\gamma}^{2}\; \right)\; C_{3,1,-1}\left[\, \widetilde{\mu}\; ,\; {\rm m_{2}}\; \right]\; +\; {\rm m_{2}}\; \widetilde{\mu}\; c_{\gamma}\; \left(\, -\; c_{\gamma}^{2}\; +\; c_{\gamma}^{2}\; \right)\; C_{3,1,-1}\left[\, \widetilde{\mu}\; ,\; {\rm m_{2}}\; \right]\; +\; {\rm m_{2}}\; \widetilde{\mu}\; c_{\gamma}\; \left(\, -\; c_{\gamma}^{2}\; +\; c_{\gamma}^{2}\; \right)\; C_{3,1,-1}\left[\, \widetilde{\mu}\; ,\; {\rm m_{2}}\; \right]\; +\; {\rm m_{2}}\; \widetilde{\mu}\; c_{\gamma}\; \left(\, -\; c_{\gamma}^{2}\; +\; c_{\gamma}^{2}\; \right)\; C_{3,1,-1}\left[\, \widetilde{\mu}\; ,\; {\rm m_{2}}\; \right]\; C_{3,1}\left[\, \widetilde{\mu}\; ,\; {\rm m_{2}}\; \right]\; C_
                                                                                                                                                  \mathsf{m_2}\; \tilde{\mu}\; \mathsf{c_{\gamma}}\; \mathsf{g_2}^2\; \mathsf{s_{\gamma}}^3\; \overline{\mathsf{y_u}}^{\mathsf{i2i3}}\; \mathsf{y_u}^{\mathsf{i1i4}}\; \mathsf{LF_{3,1,0}}[\tilde{\mu}\;,\; \mathsf{m_2}]\; -\; 2\; \mathsf{g_2}^2\; \mathsf{s_{\gamma}}^2\; \overline{\mathsf{y_u}}^{\mathsf{i2i3}}\; \mathsf{y_u}^{\mathsf{i1i4}}\; \mathsf{LF_{4,1,-2}}[\tilde{\mu}\;,\; \mathsf{m_2}]\; -\; 2\; \mathsf{g_2}^2\; \mathsf{y_u}^{\mathsf{i2i3}}\; \mathsf{y_
                                                                                                                                                  3 m_2 \tilde{\mu} c_{\gamma} g_2^2 s_{\gamma}^3 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{4,1,-1} [\tilde{\mu}, m_2] +
                                                                                                                                                  g_{2}^{2} \; s_{\gamma}^{2} \; \overline{y_{u}^{12i3}} \; y_{u}^{i1i4} \; LF_{5,1,-3} \left[\tilde{\mu} \; , \; m_{2} \right] \; + \; 2 \; m_{2} \; \tilde{\mu} \; c_{\gamma} \; g_{2}^{2} \; s_{\gamma}^{3} \; \overline{y_{u}^{12i3}} \; y_{u}^{i1i4} \; LF_{5,1,-2} \left[\tilde{\mu} \; , \; m_{2} \right] \; - \; 2 \; m_{2} \; \tilde{\mu} \; c_{\gamma} \; g_{2}^{2} \; s_{\gamma}^{3} \; \overline{y_{u}^{12i3}} \; y_{u}^{i1i4} \; LF_{5,1,-2} \left[\tilde{\mu} \; , \; m_{2} \right] \; - \; 2 \; m_{2} \; \tilde{\mu} \; c_{\gamma} \; g_{2}^{2} \; s_{\gamma}^{3} \; \overline{y_{u}^{12i3}} \; y_{u}^{i1i4} \; LF_{5,1,-2} \left[\tilde{\mu} \; , \; m_{2} \right] \; - \; 2 \; m_{2} \; \tilde{\mu} \; c_{\gamma} \; g_{2}^{2} \; s_{\gamma}^{3} \; \overline{y_{u}^{12i3}} \; y_{u}^{i1i4} \; LF_{5,1,-2} \left[\tilde{\mu} \; , \; m_{2} \right] \; - \; 2 \; m_{2} \; \tilde{\mu} \; c_{\gamma} \; g_{2}^{2} \; s_{\gamma}^{3} \; \overline{y_{u}^{12i3}} \; y_{u}^{i1i4} \; LF_{5,1,-2} \left[\tilde{\mu} \; , \; m_{2} \right] \; - \; 2 \; m_{2} \; \tilde{\mu} \; c_{\gamma} \; g_{2}^{2} \; s_{\gamma}^{3} \; \overline{y_{u}^{12i3}} \; y_{u}^{i1i4} \; LF_{5,1,-2} \left[\tilde{\mu} \; , \; m_{2} \right] \; - \; 2 \; m_{2} \; \tilde{\mu} \; c_{\gamma} \; g_{2}^{2} \; s_{\gamma}^{3} \; \overline{y_{u}^{12i3}} \; y_{u}^{i1i4} \; LF_{5,1,-2} \left[\tilde{\mu} \; , \; m_{2} \right] \; - \; 2 \; m_{2} \; \tilde{\mu} \; c_{\gamma} \; g_{\gamma}^{2} \; s_{\gamma}^{3} \; \overline{y_{u}^{12i3}} \; y_{u}^{i1i4} \; LF_{5,1,-2} \left[\tilde{\mu} \; , \; m_{2} \right] \; - \; 2 \; m_{2} \; \tilde{\mu} \; c_{\gamma}^{2} \; g_{\gamma}^{2} \; \overline{y_{u}^{12i3}} \; y_{u}^{i1i4} \; LF_{5,1,-2} \left[\tilde{\mu} \; , \; m_{2} \right] \; - \; 2 \; m_{2} \; \tilde{\mu} \; c_{\gamma}^{2} \; g_{\gamma}^{2} \; \overline{y_{u}^{12i3}} \; y_{u}^{2} \; \overline{y_{u}^{12i3}} \; y_{u}^{2} \; \overline{y_{u}^{12i3}} \; y_{u}^{2} \; \overline{y_{u}^{12i3}} \; y_{u}^{2} \; \overline{y_{u}^{12i3}} \; \overline{y_{u}^{1
                                                                                                                                                          \frac{1}{24} \; \frac{1}{m_{\tilde{g}}^2} \; c_{\gamma}^2 \; \overline{y_d}^{i2p} \; y_d^{rp} \; \overline{y_u}^{ri3} \; y_u^{i1i4} \; \mathsf{LF}_{2,1,-1} \big[ \widetilde{\mu} \; , \; m_{\tilde{d}}^{\; p} \big] \; - \; \frac{1}{27} \; g_1^2 \; \overline{y_d}^{i2p} \; y_d^{\; i1p} \; \mathsf{LF}_{2,1,0} \big[ \widetilde{\mu} \; , \; m_{\tilde{d}}^{\; p} \big] \; \delta_{i3i4} \; - \; \frac{1}{27} \; g_1^2 \; \overline{y_d}^{i2p} \; y_d^{\; i2p} \; y_
                                                                                                                                                          \frac{1}{24} \; \frac{1}{m_{\text{m}}^2} \; c_{\text{Y}}^2 \; \overline{y_{\text{d}}}^{\text{pr}} \; y_{\text{d}}^{\text{ilr}} \; \overline{y_{\text{u}}}^{\text{i2i3}} \; y_{\text{u}}^{\text{pi4}} \; \text{LF}_{2,\text{l,-1}} \big[ \tilde{\mu} \; , \; \text{m}_{\text{d}}^{\text{-r}} \big] \; - \\
                                                                                                                                                              \frac{1}{12} \frac{1}{m_e^2} c_{\gamma}^2 \overline{y_u}^{pr} \overline{y_u}^{i2i3} y_u^{pi4} y_u^{i1r} LF_{2,1,-1} [\widetilde{\mu}, m_{\widetilde{q}}^{-p}] +
                                                                                                                                                              \frac{1}{108} \; {g_{1}}^{2} \; \overline{y_{u}}^{\text{pi3}} \; y_{u}^{\text{pi4}} \; \mathsf{LF}_{2,1,9} \left[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{q}}}^{\text{p}} \right] \; \delta_{\text{ili2}} - \frac{11}{108} \; {g_{1}}^{2} \; \overline{y_{u}}^{\text{pi3}} \; y_{u}^{\text{pi4}} \; \mathsf{LF}_{3,1,-1} \left[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{q}}}^{\text{p}} \right] \; \delta_{\text{ili2}} + \frac{11}{108} \; g_{1}^{2} \; \overline{y_{u}}^{\text{pi3}} \; y_{u}^{\text{pi4}} \; \mathsf{LF}_{3,1,-1} \left[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{q}}}^{\text{p}} \right] \; \delta_{\text{ili2}} + \frac{11}{108} \; g_{1}^{2} \; \overline{y_{u}}^{\text{pi3}} \; y_{u}^{\text{pi4}} \; \mathsf{LF}_{3,1,-1} \left[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{q}}}^{\text{p}} \right] \; \delta_{\text{ili2}} + \frac{11}{108} \; g_{1}^{2} \; \overline{y_{u}}^{\text{pi3}} \; y_{u}^{\text{pi4}} \; \mathsf{LF}_{3,1,-1} \left[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{q}}}^{\text{p}} \right] \; \delta_{\text{ili2}} + \frac{1}{108} \; g_{1}^{2} \; \overline{y_{u}}^{\text{pi3}} \; y_{u}^{\text{pi4}} \; \mathsf{LF}_{3,1,-1} \left[ \widetilde{\mu} \,, \, \mathsf{m_{\tilde{q}}}^{\text{p}} \right] \; \delta_{\text{ili2}} + \frac{1}{108} \; g_{1}^{2} \; \overline{y_{u}}^{\text{pi4}} \; \overline{y_{u}}^{\text
                                                                                                                                                          \frac{1}{27} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{pi3} \ y_{u}{}^{pi4} \ \mathsf{LF}_{4,1,-2} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{p} \big] \ \delta_{\mathsf{ili2}} - \frac{1}{12} \ \frac{1}{\mathsf{m}_{\bar{u}}{}^{2}} \ c_{\gamma}{}^{2} \ \overline{y_{u}}{}^{ri3} \ \overline{y_{u}}{}^{i2p} \ y_{u}{}^{rp} \ y_{u}{}^{i1i4} \ \mathsf{LF}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] - \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] + \frac{1}{2} \ \mathcal{L}_{2,1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\bar{q}}{}^{r} \big] 
                                                                                                                                                          \frac{1}{54} \; {g_{1}}^{2} \; \overline{y_{u}}^{i2p} \; {y_{u}}^{i1p} \; \mathsf{LF_{3,1,-1}} \big[ \tilde{\mu} \, , \, \mathsf{m_{\tilde{u}}}^{p} \big] \; \delta_{i3i4} + \frac{1}{54} \; {g_{1}}^{2} \; \overline{y_{u}}^{i2p} \; {y_{u}}^{i1p} \; \mathsf{LF_{4,1,-2}} \big[ \tilde{\mu} \, , \, \mathsf{m_{\tilde{u}}}^{p} \big] \; \delta_{i3i4} - \frac{1}{54} \; {g_{1}}^{2} \; \overline{y_{u}}^{i2p} \; {y_{u}}^{i2p} \; {y_{u}}^{i2p} \; \mathsf{LF_{4,1,-2}} \big[ \tilde{\mu} \, , \, \, \mathsf{m_{\tilde{u}}}^{p} \big] \; \delta_{i3i4} - \frac{1}{54} \; {g_{1}}^{2} \; \overline{y_{u}}^{i2p} \; {y_{u}}^{i2p} \; {y_{u}}^{i2p} \; {h_{\tilde{u}}}^{i2p} \; {h_{\tilde{u}}}^{i2p} \, {h_{\tilde{u}}}^{i2p} \,
                                                                                                                                                          \frac{1}{24} \frac{1}{m_o^2} c_{\gamma}^2 \overline{y_u}^{pr} \overline{y_u}^{i2i3} y_u^{pi4} y_u^{i1r} LF_{2,1,-1} [\widetilde{\mu}, m_{\widetilde{u}}^{r}] -
                                                                                                                                                          \frac{1}{27} \; m_1 \; c_{\gamma} \; g_1{}^2 \; \frac{1}{m_0{}^2} \; \overline{y_u}^{\text{i2i3}} \; \left( c_{\gamma} \; a_u{}^{\text{i1i4}} + s_{\gamma} \; \widetilde{\mu} \; y_u{}^{\text{i1i4}} \right) \; \mathsf{LF_{1,1,1,0}} \left[ m_1 \; , \; m_{\tilde{q}}{}^{\text{i1}} \; , \; m_{\tilde{u}}{}^{\text{i4}} \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; y_u{}^{\text{i1i4}} \; , \; c_{\gamma} \; \widetilde{\mu} 
                                                                                                                                                          \frac{\text{1}}{\text{108}} \; \mathsf{m_1} \; \mathsf{s_{Y}} \; \mathsf{g_{1}}^{2} \; \overline{\mathsf{y_{u}}}^{\text{1213}} \; \left( \mathsf{s_{Y}} \; \mathsf{a_{u}}^{\text{1114}} - \widetilde{\mu} \; \mathsf{c_{Y}} \; \mathsf{y_{u}}^{\text{1114}} \right) \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathsf{m_{1}} \, , \; \mathsf{m_{\tilde{q}}}^{\text{-11}} \, , \; \mathsf{m_{\tilde{u}}}^{\text{14}} \big] \; + \\ \frac{\text{1}}{\text{108}} \; \mathsf{m_{1}} \; \mathsf{s_{Y}} \; \mathsf{g_{1}}^{2} \; \overline{\mathsf{y_{u}}}^{\text{1213}} \; \left( \mathsf{s_{Y}} \; \mathsf{a_{u}}^{\text{1114}} - \widetilde{\mu} \; \mathsf{c_{Y}} \; \mathsf{y_{u}}^{\text{1114}} \right) \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathsf{m_{1}} \, , \; \mathsf{m_{\tilde{q}}}^{\text{-11}} \, , \; \mathsf{m_{\tilde{u}}}^{\text{-14}} \big] \; + \\ \frac{\text{1}}{\text{108}} \; \mathsf{m_{1}} \; \mathsf{a_{1}} \; \mathsf{a_{2}} \; \mathsf{a_{2}} \; \mathsf{a_{2}} \; \mathsf{a_{3}} \; 
                                                                                                                                                          \frac{1}{36} \; g_1^2 \; \frac{1}{m_{_{0}}^2} \; c_{_{Y}}^2 \; \overline{y_u}^{\text{i2i3}} \; y_u^{\text{i1i4}} \; \mathsf{LF}_{1,1,1,-1} \big[ \, \mathsf{m}_1 \,, \, \, \mathsf{m}_{_{\tilde{q}}}^{\text{i1}} \,, \, \, \widetilde{\mu} \, \big] \; - \;
                                                                                                                                                          \frac{1}{36}~\text{m}_1~\text{s}_{\text{Y}}~\widetilde{\mu}~\text{c}_{\text{Y}}~\text{g}_{\text{1}}^2~\frac{1}{\text{m}_{\text{q}}^2}~\overline{\text{y}_{\text{u}}}^{\text{i2i3}}~\text{y}_{\text{u}}^{\text{i1i4}}~\text{LF}_{\text{1,1,1,0}}\big[\text{m}_{\text{1}},~\text{m}_{\bar{\text{q}}}^{\text{i1}},~\widetilde{\mu}\big]~-
                                                                                                                                                          \frac{1}{27} \; m_1 \; c_{\gamma} \; g_1{}^2 \; \frac{1}{m_0{}^2} \; y_u{}^{\text{ili4}} \; \left( c_{\gamma} \; \overline{a_u}{}^{\text{i2i3}} + s_{\gamma} \; \widetilde{\mu} \; \overline{y_u}{}^{\text{i2i3}} \right) \; \text{LF}_{1,1,1,0} \left[ m_1 \; , \; m_{\tilde{q}}{}^{\text{i2}} \; , \; m_{\tilde{u}}{}^{\text{i3}} \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}{}^{\text{i2i3}} \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_u}{}^{\text{i2i3}} \; + \; c_{\gamma} \; \overline{y_u}{}^{\text{
                                                                                                                                                          \frac{\text{1}}{\text{108}} \; \mathsf{m_1} \; \mathsf{s_{Y}} \; \mathsf{g_{1}}^{2} \; \mathsf{y_u}^{\text{ili4}} \; \left(\mathsf{s_{Y}} \; \overline{\mathsf{a_u}}^{\text{i2i3}} - \widetilde{\mu} \; \mathsf{c_{Y}} \; \overline{\mathsf{y_u}}^{\text{i2i3}}\right) \; \mathsf{LF_{2,2,1,-1}} \left[\mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\text{i2}} \, , \; \mathsf{m_{\tilde{u}}}^{\text{i3}}\right] \; - \; \widetilde{\mathsf{m_{\tilde{q}}}}^{\text{i3}} \; \widetilde{\mathsf{m_{\tilde{q}}}}^{\text{i3}} + \widetilde{\mathsf{m_{\tilde{q}}}}^{\text{i3}} \; \widetilde{\mathsf{m_{\tilde{q}}}}^{\text{i3}} \right] \; - \; \widetilde{\mathsf{m_{\tilde{q}}}}^{\text{i3}} \; \widetilde{\mathsf{m_{\tilde{q}}}}^{\text{i3}} + \widetilde{\mathsf{m_{\tilde{q}}}^{\text{i3}}} + \widetilde{\mathsf{m_{\tilde{q}}}^{\text{i3}}}^{\text{i3}} + \widetilde{\mathsf{m_{\tilde{q}}}}^{\text{i3}} + \widetilde{\mathsf{m_{\tilde{q}}}}^{\text{i
                                                                                                                                                              \frac{1}{81} \; g_1{}^4 \; \mathsf{LF}_{2,1,1,-1} \big[ \mathsf{m}_1 \; , \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\dot{1}2} \; , \; \mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4} \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} \; \delta_{\dot{1}\dot{3}\dot{1}4} \; - \; \frac{2}{81} \; g_1{}^4 \; \mathsf{m}_1{}^2 \; \mathsf{LF}_{2,1,1,0} \big[ \mathsf{m}_1 \; , \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\dot{1}2} \; , \; \mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4} \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} \; \delta_{\dot{1}3\dot{1}4} \; + \; \frac{2}{81} \; g_1{}^4 \; \mathsf{m}_1{}^2 \; \mathsf{LF}_{2,1,1,0} \big[ \mathsf{m}_1 \; , \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\dot{1}2} \; , \; \mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4} \big] \; \delta_{\dot{1}\dot{1}\dot{1}2} \; \delta_{\dot{1}3\dot{1}4} \; + \; \frac{2}{81} \; g_1{}^4 \; \mathsf{m}_1{}^2 \; \mathsf{LF}_{2,1,1,0} \big[ \mathsf{m}_1 \; , \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\dot{1}2} \; , \; \mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4} \big] \; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \; \delta_{\dot{1}3\dot{1}\dot{4}} \; + \; \frac{2}{81} \; g_1{}^4 \; \mathsf{m}_1{}^2 \; \mathsf{LF}_{2,1,1,0} \big[ \mathsf{m}_1 \; , \; \mathsf{m}_{\tilde{\mathsf{q}}}{}^{\dot{1}2} \; , \; \mathsf{m}_{\tilde{\mathsf{u}}}{}^{\dot{1}4} \big] \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{2}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{3}}\dot{\mathsf{1}}\dot{\mathsf{4}}} \; + \; \frac{2}{81} \; \mathsf{m}_1{}^4 \; \mathsf{m}_1{}^2 \; \mathsf{m}_2{}^2 \; \mathsf{m}_2{}^2 \; , \; \mathsf{m}_2{}^{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{2}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1}}} \; \delta_{\dot{\mathsf{1
                                                                                                                                                          \frac{1}{36}~g_{1}^{2}~\frac{1}{m_{_{0}}^{2}}~c_{\gamma}^{2}~\overline{y_{u}}^{\text{i2i3}}~y_{u}^{\text{i1i4}}~\mathsf{LF}_{1,1,1,-1}\big[\mathsf{m}_{1},~\mathsf{m}_{\bar{q}}^{\text{i2}},~\tilde{\mu}\big]~-
                                                                                                                                                          \frac{1}{36}~\text{m}_1~\text{s}_{\text{Y}}~\widetilde{\mu}~\text{c}_{\text{Y}}~\text{g}_1^{2}~\frac{1}{\text{m}_{\text{g}}^{2}}~\overline{\text{y}_{\text{u}}}^{\text{i2i3}}~\text{y}_{\text{u}}^{\text{i1i4}}~\text{LF}_{\text{1,1,1,0}}\big[\text{m}_{\text{1}},~\text{m}_{\tilde{\text{q}}}^{\text{i2}},~\widetilde{\mu}\big]~+
                                                                                                                                                          \frac{1}{108}\; \mathbf{m_1}\; \mathbf{s_{\gamma}}\; \mathbf{g_{1}}^{2}\; \mathbf{y_u}^{\text{ili4}}\; \left(\mathbf{s_{\gamma}}\; \overline{\mathbf{a_u}}^{\text{i2i3}} - \widetilde{\mu}\; \mathbf{c_{\gamma}}\; \overline{\mathbf{y_u}}^{\text{i2i3}}\right)\; \mathbf{LF_{2,2,1,-1}} \left[\mathbf{m_1}\;,\; \mathbf{m_{\tilde{u}}}^{\text{i3}}\;,\; \mathbf{m_{\tilde{q}}}^{\text{i2}}\right] \; - \; \mathbf{m_{\tilde{u}}}^{\text{i2i3}} + \mathbf{m_{\tilde
                                                                                                                                                      \tfrac{1}{9}~g_1^2~\tfrac{1}{m_0^2}~c_{\gamma}^2~\overline{y_u}^{\text{i2i3}}~y_u^{\text{i1i4}}~\mathsf{LF_{1,1,1,-1}}\big[\,\mathsf{m_1}\,,~\mathsf{m_{\tilde{u}}}^{\text{i3}}\,,~\widetilde{\mu}\,\big]~+
                                                                                                                                                          \frac{1}{9}~m_1~s_{\gamma}~\widetilde{\mu}~c_{\gamma}~g_1^2~\frac{1}{m_{\rm o}^2}~\overline{y_u}^{\rm i2i3}~y_u^{\rm i1i4}~{\rm LF}_{1,1,1,9}\big[m_1,~m_{\bar u}^{\rm i3},~\widetilde{\mu}\big]~+
                                                                                                                                                      \frac{1}{108} \ m_1 \ s_{\gamma} \ g_{1}{}^{2} \ \overline{y_{u}}{}^{12\dot{1}\dot{3}} \ \left( s_{\gamma} \ a_{u}{}^{1\dot{1}\dot{1}\dot{4}} - \widetilde{\mu} \ c_{\gamma} \ y_{u}{}^{1\dot{1}\dot{1}\dot{4}} \right) \ LF_{2,2,1,-1} \big[ m_{1} \ , \ m_{\tilde{u}}{}^{\dot{1}\dot{4}} \ , \ m_{\tilde{q}}{}^{\dot{1}} \big] \ - \frac{1}{2} \left( m_{1} \ , \ m_{\tilde{u}}{}^{\dot{1}\dot{4}} \right) \ .
                                                                                                                                                      \frac{1}{9} \; g_{1}^{2} \; \frac{1}{m_{0}^{2}} \; c_{\gamma}^{2} \; \overline{y_{u}}^{i2i3} \; y_{u}^{i1i4} \; \mathsf{LF}_{1,1,1,-1} \big[ \, \mathsf{m}_{1} \, , \; \mathsf{m}_{\tilde{u}}^{\; i4} \, , \; \widetilde{\mu} \, \big] \; + \\
                                                                                                                                                      \frac{1}{9}~m_1~s_{\Upsilon}~\tilde{\mu}~c_{\Upsilon}~g_1^2~\frac{1}{m_{o}^2}~\overline{y_u}^{i2i3}~y_u^{i1i4}~\mathsf{LF_{1,1,1,0}}\big[\,\mathsf{m_1},~\mathsf{m_{\tilde{u}}}^{i4},~\tilde{\mu}\,\big]~+
                                                                                                                                                          \frac{1}{72} g_1^2 s_{\gamma}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,2,1,-2}[m_1, \tilde{\mu}, m_{\tilde{q}}^{i1}] +
                                                                                                                                                                      \frac{1}{72} \, m_1 \, s_{\gamma} \, \widetilde{\mu} \, c_{\gamma} \, g_1^2 \, \overline{y_u}^{i2i3} \, y_u^{i1i4} \, LF_{2,2,1,-1} [m_1, \, \widetilde{\mu}, \, m_{\tilde{q}}^{i1}] +
                                                                                                                                                          \frac{1}{72} g_1^2 s_{\gamma}^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{2,2,1,-2}[m_1, \tilde{\mu}, m_{\tilde{q}}^{i2}] +
                                                                                                                                                                      \frac{1}{72} \, m_1 \, s_{\gamma} \, \widetilde{\mu} \, c_{\gamma} \, g_1^2 \, \overline{y_u}^{i2i3} \, y_u^{i1i4} \, LF_{2,2,1,-1} [m_1, \, \widetilde{\mu}, \, m_{\tilde{q}}^{i2}] -
                                                                                                                                                          \frac{1}{18} \; g_1{}^2 \; s_\gamma{}^2 \; \overline{y_u}{}^{i2i3} \; y_u{}^{i1i4} \; LF_{2,2,1,-2} \big[ \, m_1 \, , \; \widetilde{\mu} \, , \; m_{\tilde{u}}{}^{i3} \, \big] \; - \\
                                                                                                                                                          \frac{1}{18} \text{ m}_{1} \text{ s}_{\gamma} \, \widetilde{\mu} \, \text{c}_{\gamma} \, \text{g}_{1}^{2} \, \overline{\text{y}_{u}}^{\text{i2i3}} \, \text{y}_{u}^{\text{i1i4}} \, \text{LF}_{2,2,1,-1} \big[ \text{m}_{1} \, , \, \widetilde{\mu} \, , \, \text{m}_{\tilde{u}}^{\text{i3}} \big] \, - \, \\
                                                                                                                                                          \frac{1}{18}\; {g_{1}}^{2}\; {s_{\gamma}}^{2}\; \overline{y_{u}}^{i\,2\,i\,3}\; {y_{u}}^{i\,1\,i\,4}\; \mathsf{LF}_{2,2,1,-2}\big[\,\mathsf{m}_{1}\,,\;\widetilde{\mu}\,,\;\mathsf{m}_{\bar{u}}^{\;i\,4}\,\big]\; -
                                                                                                                                                      \frac{1}{18}~\text{m}_{1}~\text{s}_{\gamma}~\widetilde{\mu}~\text{c}_{\gamma}~\text{g}_{1}^{~2}~\overline{\text{y}_{u}}^{\text{i2i3}}~\text{y}_{u}^{~\text{i1i4}}~\text{LF}_{\text{2,2,1,-1}}\big[\,\text{m}_{\text{1}}\,,~\widetilde{\mu}\,,~\text{m}_{\tilde{u}}^{~\text{i4}}\,\big] –
                                                                                                                                                      \frac{1}{4} \; g_2^2 \; \frac{1}{m_0^2} \; c_{\gamma}^2 \; \overline{y_u}^{i2i3} \; y_u^{i1i4} \; \mathsf{LF}_{1,1,1,-1} \big[ \, \mathsf{m}_2 \, , \; \mathsf{m}_{\tilde{q}}^{\; i1} \, , \; \widetilde{\mu} \, \big] \; + \\
                                                                                                                                                  \tfrac{1}{4}\;\mathsf{m_2}\;\mathsf{s_{\scriptscriptstyle Y}}\;\tilde{\mu}\;\mathsf{c_{\scriptscriptstyle Y}}\;\mathsf{g_2}^2\;\tfrac{1}{\mathsf{m_0}^2}\;\overline{\mathsf{y_u}}^{\mathsf{i2i3}}\;\mathsf{y_u}^{\mathsf{i1i4}}\;\mathsf{LF_{1,1,1,0}}\big[\mathsf{m_2}\,,\;\mathsf{m_{\bar{q}}}^{\mathsf{i1}}\,,\;\tilde{\mu}\big]\;-
                                                                                                                                                      \tfrac{1}{4}~g_2{}^2~\tfrac{1}{m_0{}^2}~c_{\gamma}{}^2~\overline{y_u}^{\text{i2i3}}~y_u{}^{\text{i1i4}}~\mathsf{LF_{1,1,1,-1}}\big[\,\mathsf{m_2}\,,~\mathsf{m_{\tilde{q}}}^{\text{i2}}\,,~\widetilde{\mu}\,\big]~+
                                                                                                                                                      \frac{1}{4}~\text{m}_2~\text{s}_{\scriptscriptstyle \Upsilon}~\tilde{\mu}~\text{c}_{\scriptscriptstyle \Upsilon}~\text{g}_2^{\,2}~\frac{1}{\text{m}_{\scriptscriptstyle 0}^{\,2}}~\overline{\text{y}_{u}}^{\text{i2i3}}~\text{y}_{u}^{\,\text{i1i4}}~\text{LF}_{1,1,1,0}\left[\text{m}_2\,,~\text{m}_{\tilde{q}}^{\,\,\text{i2}}\,,~\tilde{\mu}\right]~-
                                                                                                                                                      \frac{1}{8}~g_2^2~s_{\gamma}^2~\overline{y_u}^{i2i3}~y_u^{i1i4}~LF_{2,2,1,-2}\big[m_2\,,~\tilde{\mu}\,,~m_{\tilde{q}}^{i1}\big] –
                                                                                                                                                                                          \mathbf{m_2}\;\mathbf{s_{\gamma}}\;\widetilde{\boldsymbol{\mu}}\;\mathbf{c_{\gamma}}\;\mathbf{g_2}^2\;\overline{\mathbf{y_u}}^{\mathbf{i}\,\mathbf{2}\,\mathbf{i}\,\mathbf{3}}\;\mathbf{y_u}^{\mathbf{i}\,\mathbf{1}\,\mathbf{i}\,\mathbf{4}}\;\mathbf{LF_{2,2,1,-1}}\big[\mathbf{m_2}\,\boldsymbol{,}\;\widetilde{\boldsymbol{\mu}}\,\boldsymbol{,}\;\mathbf{m_{\tilde{q}}}^{\mathbf{i}\,\mathbf{1}}\big]\;-
                                                                                                                                                          \frac{1}{8}~g_2^2~s_{\gamma}^{~2}~\overline{y_u}^{i2i3}~y_u^{~i1i4}~LF_{2,2,1,-2}\big[\,m_2\,,~\widetilde{\mu}\,,~m_{\tilde{q}}
                                                                                                                                                                                              \textbf{m}_2 \; \textbf{s}_{\gamma} \; \tilde{\mu} \; \textbf{c}_{\gamma} \; \textbf{g}_2^{\; 2} \; \overline{\textbf{y}_u}^{\texttt{i2i3}} \; \textbf{y}_u^{\; \texttt{i1i4}} \; \textbf{LF}_{\texttt{2,2,1,-1}} \big[ \, \textbf{m}_{\texttt{2}} \, , \; \tilde{\mu} \, , \; \textbf{m}_{\tilde{\textbf{q}}}^{\; \texttt{i2}} \big] \; - \; \\
                                                                                                                                                                                          i2i3 (s_{\gamma} a_u^{i1i4} - \tilde{\mu} c_{\gamma} y_u^{i1i4}) LF_{2,2,1,-1}[m_3, m_{\tilde{q}}]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           , m<sub>ũ</sub>
                                                                                                                                                                                          m_{3}\;c_{\gamma}\;g_{3}^{2}\;\tfrac{1}{m_{0}^{2}}\;y_{u}^{\text{ili4}}\;\left(c_{\gamma}\;\overline{a_{u}}^{\text{i2i3}}+s_{\gamma}\;\widetilde{\mu}\;\overline{y_{u}}^{\text{i2i3}}\right)\;\mathsf{LF}_{1,1,1,9}\left[m_{3}\;,\;m_{\tilde{q}}^{\text{i2i3}}\right]
                                                                                                                                                                                              \text{m}_{3} \; \text{s}_{\gamma} \; \text{g}_{3}^{\; 2} \; \text{y}_{u}^{\; \text{ili4}} \; \left( \text{s}_{\gamma} \; \overline{\text{a}_{u}}^{\; \text{i2i3}} - \widetilde{\mu} \; \text{c}_{\gamma} \; \overline{\text{y}_{u}}^{\; \text{i2i3}} \right) \; \text{LF}_{2,2,1,-1} \big[ \, \text{m}_{3} \, , \; \text{m}_{\bar{q}}^{\; \text{i2}} \, , \; \text{m}_{\bar{u}}^{\; \text{i3}} \big] \; - \; \text{m}_{\bar{u}}^{\; \text{i3}} \, , \; \text{m}_{\bar
                                                                                                                                                      \frac{2}{9}\;g_{3}{}^{4}\;\mathsf{LF}_{2,1,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\,\big]\;\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}4}\,-\,\frac{4}{9}\;g_{3}{}^{4}\;\mathsf{m}_{3}{}^{2}\;\mathsf{LF}_{2,1,1,0}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\,\big]\;\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}4}\,+\,\frac{4}{9}\;g_{3}{}^{4}\;\mathsf{m}_{3}{}^{2}\;\mathsf{LF}_{2,1,1,0}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\,\big]\;\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}4}\,+\,\frac{4}{9}\;g_{3}{}^{4}\;\mathsf{m}_{3}{}^{2}\;\mathsf{LF}_{2,1,1,0}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\,\big]\;\;\delta_{\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}4}\,+\,\frac{4}{9}\;g_{3}{}^{4}\;\mathsf{m}_{3}{}^{2}\;\mathsf{LF}_{2,1,1,0}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\,\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\,+\,\frac{4}{9}\;g_{3}{}^{4}\;\mathsf{m}_{3}{}^{2}\;\mathsf{LF}_{2,1,1,0}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\,\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\,+\,\frac{4}{9}\;g_{3}{}^{4}\;\mathsf{m}_{3}{}^{2}\;\mathsf{LF}_{2,1,1,0}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\,\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\,+\,\frac{4}{9}\;g_{3}{}^{4}\;\mathsf{m}_{3}{}^{2}\;\mathsf{LF}_{2,1,1,0}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{q}}{}^{\dot{1}2}\,,\,\mathsf{m}_{\bar{u}}{}^{\dot{1}4}\,\big]\;\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\,+\,\frac{4}{9}\;g_{3}{}^{\dot{1}4}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3}\,\,\mathsf{m}_{3
                                                                                                                                                                                          \mathsf{m_3} \; \mathsf{s_{Y}} \; \mathsf{g_{3}}^2 \; \mathsf{y_u}^{\mathsf{ili4}} \; \left(\mathsf{s_{Y}} \; \overline{\mathsf{a_u}}^{\mathsf{i2i3}} - \tilde{\mu} \; \mathsf{c_{Y}} \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}}\right) \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathsf{m_3} \, , \; \mathsf{m_{\tilde{u}}}^{\mathsf{i3}} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i2}} \big] \; + \; \mathsf{m_{\tilde{q}}}^{\mathsf{i2}} \, + \; \mathsf{m_{
                                                                                                                                                                                      m_3 \, s_{\gamma} \, g_3^2 \, \overline{y_u}^{i2i3} \, \left( s_{\gamma} \, a_u^{i1i4} - \widetilde{\mu} \, c_{\gamma} \, y_u^{i1i4} \right) \, LF_{2,2,1,-1} \left[ m_3 \, , \, m_{\widetilde{u}}^{i4} \, , \, m_{\widetilde{q}}^{i4} \right]
                                                                                                                                                          \frac{1}{6}\;\widetilde{\mu}\;c_{\gamma}\;\frac{1}{m_{o}^{2}}\;\overline{y_{d}}^{i\,2p}\;\overline{y_{u}}^{r\,i\,3}\;y_{u}^{i\,1\,i\,4}\;\left(s_{\gamma}\;a_{d}^{\,r\,p}+\widetilde{\mu}\;c_{\gamma}\;y_{d}^{\,r\,p}\right)\;\mathsf{LF}_{1,1,1,0}\left[m_{\bar{d}}^{\,\,p},\;m_{\bar{q}}^{\,\,r},\;\widetilde{\mu}\right]\;+\;2\,(s_{\gamma}\;a_{d}^{\,\,r\,p}+\widetilde{\mu}\;c_{\gamma}\;y_{d}^{\,\,r\,p})
                                                                                                                                                                                                       _{i} s_{\gamma} \, \widetilde{\mu} \, \overline{y_{d}}^{i2p} \, \overline{y_{u}}^{ri3} \, y_{u}^{i1i4} \, \left( c_{\gamma} \, a_{d}^{rp} - s_{\gamma} \, \widetilde{\mu} \, y_{d}^{rp} \right) \, LF_{2,1,1,0} \left[ m_{\tilde{d}}^{\,\,\,p}, \, m_{\tilde{q}}^{\,\,\,r}, \, \widetilde{\mu} \right] + c_{i} \, (c_{\gamma} \, a_{d}^{\,\,\,r}) \, c_{\gamma} \, \widetilde{\mu} \, c_{\gamma} \, \widetilde{\mu} \,
                                                                                                                                                                                                           s_{\gamma}\,\widetilde{\mu}\,\overline{y_{d}}^{i2p}\,\overline{y_{u}}^{ri3}\,y_{u}^{i1i4}\,\left(-\,c_{\gamma}\,a_{d}^{\,rp}\,+\,s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,rp}\right)\,\mathsf{LF_{3,1,1,-1}}\!\left[\,\mathsf{m}_{\tilde{d}}^{\,\,p},\,\mathsf{m}_{\tilde{q}}^{\,\,r},\,\widetilde{\mu}\,\right]\,+\,s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\,rp}
                                                                                                                                                                                                           \frac{1}{6}\;\widetilde{\mu}\;c_{\gamma}\;\frac{1}{m_{o}^{2}}\;y_{d}^{\textrm{ilr}}\;\overline{y_{u}}^{\textrm{i2i3}}\;y_{u}^{\textrm{pi4}}\;\left(s_{\gamma}\;\overline{a_{d}}^{\textrm{pr}}+\widetilde{\mu}\;c_{\gamma}\;\overline{y_{d}}^{\textrm{pr}}\right)\;\mathsf{LF}_{1,1,1,0}\left[m_{\widetilde{d}}^{\textrm{r}},\;m_{\widetilde{q}}^{\textrm{p}},\;\widetilde{\mu}\right]\;+
                                                                                                                                                              \frac{1}{12} \, s_{\Upsilon} \, \widetilde{\mu} \, y_{d}^{\, i1r} \, \overline{y_{u}}^{\, i2i3} \, y_{u}^{\, pi4} \, \left( c_{\Upsilon} \, \overline{a_{d}}^{pr} - s_{\Upsilon} \, \widetilde{\mu} \, \overline{y_{d}}^{pr} \right) \, \mathsf{LF}_{2,1,1,9} \left[ \, \mathsf{m_{\tilde{d}}}^{\, r} \, , \, \, \mathsf{m_{\tilde{q}}}^{\, p} \, , \, \, \widetilde{\mu} \, \right] \, + \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \, y_{d}^{\, pr} \, , \, c_{\chi} \, \widetilde{\mu} \,
                                                                                                                                                                                                           \left\{ s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\textrm{ilr}}\,\overline{y_{u}}^{\textrm{i2i3}}\,y_{u}^{\,\textrm{pi4}}\,\left(-\,c_{\gamma}\,\overline{a_{d}}^{\textrm{pr}}\,+\,s_{\gamma}\,\widetilde{\mu}\,\overline{y_{d}}^{\textrm{pr}}\right)\,\mathsf{LF_{3,1,1,-1}}\!\left[\,\mathsf{m}_{d}^{\,\textrm{-r}}\,,\,\mathsf{m}_{\tilde{q}}^{\,\textrm{-p}}\,,\,\widetilde{\mu}\,\right]\,+\,s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\textrm{-pr}}\right\}
                                                                                                                                                                                                           s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\textrm{ilr}}\,\overline{y_{u}}^{\textrm{i2i3}}\,y_{u}^{\,\textrm{pi4}}\,\left(c_{\gamma}\,\overline{a_{d}}^{\textrm{pr}}-s_{\gamma}\,\widetilde{\mu}\,\overline{y_{d}}^{\textrm{pr}}\right)\,\mathsf{LF}_{2,1,1,9}\!\left[\mathsf{m}_{\bar{q}}^{\,\textrm{p}},\,\mathsf{m}_{\bar{d}}^{\,\textrm{r}},\,\widetilde{\mu}\right]+
                                                                                                                                                                                                           s_{\gamma}\,\widetilde{\mu}\,\,y_{d}^{\,\,i1r}\,\,\overline{y_{u}}^{i2i3}\,\,y_{u}^{\,\,pi4}\,\left(-\,c_{\gamma}\,\,\overline{a_{d}}^{\,\,pr}\,+\,s_{\gamma}\,\widetilde{\mu}\,\,\overline{y_{d}}^{\,\,pr}\right)\,\,\mathsf{LF}_{3,1,1,-1}\!\left[\,\mathsf{m}_{\bar{q}}^{\,\,p}\,,\,\,\mathsf{m}_{\bar{d}}^{\,\,r}\,,\,\,\widetilde{\mu}\,\right]\,+\,s_{\gamma}\,\widetilde{\mu}\,\,y_{d}^{\,\,pr}
                                                                                                                                                                                                               s_{\gamma}\;\widetilde{\mu}\;y_{d}^{\;i1r}\;\overline{y_{u}}^{i2i3}\;y_{u}^{\;pi4}\;\left(-\,c_{\gamma}\;\overline{a_{d}}^{pr}\,+\,s_{\gamma}\;\widetilde{\mu}\;\overline{y_{d}}^{pr}\right)\;LF_{2,2,1,-1}\!\left[m_{\bar{q}}^{\;p},\;\widetilde{\mu}\,,\;m_{\bar{d}}^{\;r}\right]\;+\,s_{\gamma}\;\widetilde{\mu}^{\;p}
                                                                                                                                                                                                               s_{\gamma}\,\widetilde{\mu}\,\overline{y_{d}}^{\text{i2p}}\,\overline{y_{u}}^{\text{ri3}}\,y_{u}^{\text{i1i4}}\,\left(c_{\gamma}\,a_{d}^{\,\text{rp}}-s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\text{rp}}\right)\,\mathsf{LF}_{2,1,1,9}\!\left[\mathsf{m}_{\tilde{q}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{p}},\,\widetilde{\mu}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{q}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{q}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{q}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{q}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{q}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{q}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{q}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{q}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}},\,\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sgn}^{2}\left[\mathsf{m}_{\tilde{d}}^{\,\text{r}}\right]\,+\,2\,\mathrm{sg
                                                                                                                                                                                                           s_{\gamma}\,\widetilde{\mu}\,\overline{y_{d}}^{i2p}\,\overline{y_{u}}^{ri3}\,y_{u}^{i1i4}\,\left(-\,c_{\gamma}\,a_{d}^{\,rp}+s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\!\left[\mathsf{m}_{\tilde{q}}^{\,\,r},\,\mathsf{m}_{\tilde{d}}^{\,\,p},\,\widetilde{\mu}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,r},\,\mathsf{m}_{\tilde{d}}^{\,\,p},\,\widetilde{\mu}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,r},\,\mathsf{m}_{\tilde{d}}^{\,\,p},\,\widetilde{\mu}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,r},\,\mathsf{m}_{\tilde{d}}^{\,\,p},\,\widetilde{\mu}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,r},\,\mathsf{m}_{\tilde{d}}^{\,\,p},\,\widetilde{\mu}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,r},\,\mathsf{m}_{\tilde{d}}^{\,\,p},\,\widetilde{\mu}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,r},\,\mathsf{m}_{\tilde{d}}^{\,\,rp},\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,r},\,\mathsf{m}_{\tilde{d}}^{\,\,rp}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}\,y_{d}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right]+\left(-\,c_{\gamma}\,a_{d}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right)\,\mathsf{LF}_{3,1,1,-1}\left[\mathsf{m}_{\tilde{q}}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right]+\left(-\,c_{\gamma}\,a_{\alpha}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}+s_{\gamma}\,\widetilde{\mu}_{\tilde{d}}^{\,\,rp}\right
                                                                                                                                                          24
                                                                                                                                                                                                           \left[ m_1 \, s_{\gamma} \, g_1^{\, 2} \, \overline{y_u^{\, i2i3}} \, \left( - \, s_{\gamma} \, a_u^{\, i1i4} + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, i1i4} \right) \, \mathsf{LF}_{2,1,1,0} \left[ m_{\tilde{q}}^{\, i1}, \, m_1, \, m_{\tilde{u}}^{\, i4} \right] + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, i1i4} \right] \, \mathsf{LF}_{2,1,1,0} \left[ m_{\tilde{q}}^{\, i1}, \, m_1, \, m_{\tilde{u}}^{\, i4} \right] + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, i1i4} \right] \, \mathsf{LF}_{2,1,1,0} \left[ m_{\tilde{q}}^{\, i1}, \, m_1, \, m_{\tilde{u}}^{\, i4} \right] + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, i1i4} \right] \, \mathsf{LF}_{2,1,1,0} \left[ m_{\tilde{q}}^{\, i1}, \, m_1, \, m_{\tilde{u}}^{\, i4} \right] + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, i1i4} + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, i1i4} \right] \, \mathsf{LF}_{2,1,1,0} \left[ m_{\tilde{q}}^{\, i1}, \, m_1, \, m_{\tilde{u}}^{\, i4} \right] + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, i1i4} + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, i1i4} + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, i1i4} \right] \, \mathsf{LF}_{2,1,1,0} \left[ m_{\tilde{q}}^{\, i1}, \, m_1, \, m_{\tilde{u}}^{\, i4} \right] + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, i1i4} + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, i
                                                                                                                                                                                                               \mathsf{m_1} \; \mathsf{s_{Y}} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \; \left(\mathsf{s_{Y}} \; \mathsf{a_u}^{\mathsf{i1i4}} - \widetilde{\mu} \; \mathsf{c_{Y}} \; \mathsf{y_u}^{\mathsf{i1i4}}\right) \; \mathsf{LF_{3,1,1,-1}} \big[ \, \mathsf{m_{\tilde{q}}}^{\mathsf{i1}}, \; \mathsf{m_1}, \; \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \big] \; + \\
                                                                                                                                                                                              \mathsf{m}_{3}\,\mathsf{s}_{\gamma}\,\mathsf{g}_{3}{}^{2}\,\overline{\mathsf{y}_{\mathsf{u}}}{}^{\mathsf{i}\,\mathsf{2}\,\mathsf{i}\,\mathsf{3}}\,\left(-\,\mathsf{s}_{\gamma}\,\mathsf{a}_{\mathsf{u}}{}^{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{4}}+\widetilde{\mu}\,\mathsf{c}_{\gamma}\,\mathsf{y}_{\mathsf{u}}{}^{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{4}}\right)\,\mathsf{LF}_{\mathsf{2},\mathsf{1},\mathsf{1},\mathsf{0}}\left[\,\mathsf{m}_{\tilde{\mathsf{q}}}\,\mathsf{c}_{\mathsf{q}}\,\mathsf{c}_{\mathsf{q}}\,\mathsf{c}_{\mathsf{q}}\,\mathsf{c}_{\mathsf{q}}\,\mathsf{c}_{\mathsf{q}}\,\mathsf{c}_{\mathsf{q}}\,\mathsf{c}_{\mathsf{q}}\,\mathsf{c}_{\mathsf{q}}\right]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [i^1, \mathsf{m}_3, \mathsf{m}_{	ilde{\mathsf{u}}}^{i4}] +
                                                                                                                                                                                      \mathsf{m_3} \; \mathsf{s_{\gamma}} \; \mathsf{g_{3}}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \; \left( \mathsf{s_{\gamma}} \; \mathsf{a_u}^{\mathsf{i1i4}} - \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{y_u}^{\mathsf{i1i4}} \right) \; \mathsf{LF_{3,1,1,-1}} \left[ \mathsf{m_{\bar{q}}}^{\mathsf{-i1}}, \; \mathsf{m_{3}}, \; \mathsf{m_{\bar{u}}}^{\mathsf{-i4}} \right] \; + \\
                                                                                                                                                                  \mathsf{m_1} \; \mathsf{s_{Y}} \; \mathsf{g_1}^2 \; \mathsf{y_u}^{\mathsf{ili4}} \; \left(\mathsf{s_{Y}} \; \overline{\mathsf{a_u}}^{\mathsf{i2i3}} - \tilde{\mu} \; \mathsf{c_{Y}} \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}}\right) \; \mathsf{LF_{3,1,1,-1}} \big[ \, \mathsf{m_{\tilde{q}}}^{\mathsf{i2}}, \; \mathsf{m_1}, \; \mathsf{m_{\tilde{u}}}^{\mathsf{i3}} \big] \; + \\
                                                                                                                                                      \frac{3}{a}\,m_3\,\,s_{\gamma}\,\,g_3^{\,2}\,\,y_u^{\,i\,1i\,4}\,\left(-\,s_{\gamma}\,\overline{a_u}^{\,i\,2i\,3}\,+\,\widetilde{\mu}\,\,c_{\gamma}\,\overline{y_u}^{\,i\,2i\,3}\right)\,\,\mathsf{LF}_{2,1,1,0}\!\left[\,m_{\tilde{q}}^{\,i\,2}\,,\,m_3\,,\,m_{\tilde{u}}^{\,i\,3}\,\right]\,+\,\widetilde{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,\overline{g}_{1}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,c_{\gamma}^{\,2}\,\,
                                                                                                                                                                                      \mathsf{m_3} \, \mathsf{s_{Y}} \, \mathsf{g_{3}}^2 \, \mathsf{y_u}^{\mathsf{ili4}} \, \left( \mathsf{s_{Y}} \, \overline{\mathsf{a_u}}^{\mathsf{i2i3}} - \tilde{\mu} \, \mathsf{c_{Y}} \, \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \right) \, \mathsf{LF_{3,1,1,-1}} \big[ \, \mathsf{m_{\tilde{q}}}^{\mathsf{i2}}, \, \mathsf{m_{3}}, \, \mathsf{m_{\tilde{u}}}^{\mathsf{i3}} \big] \, + \, \mathsf{m_{\tilde{q}}}^{\mathsf{i3}} \, \mathsf{m_{\tilde{q}}}^{\mathsf{i3}} + \, \mathsf{m_{\tilde{q}}}^{\mathsf{i3}} \, \mathsf{m_{\tilde{q}}}^{\mathsf{i3}} \big] \, + \, \mathsf{m_{\tilde{q}}}^{\mathsf{i3}} \, \mathsf{m_{\tilde{q}}}^{\mathsf{i3}} + \, \mathsf{m_{\tilde{q}}}^{\mathsf{i3}} \, \mathsf{m_{\tilde{q}}}^{\mathsf{i3}} \, \mathsf{m_{\tilde{q}}}^{\mathsf{i3}} \, \mathsf{m_{\tilde{q}}}^{\mathsf{i3}} \big] \, + \, \mathsf{m_{\tilde{q}}}^{\mathsf{i3}} \, \mathsf{m_{
                                                                                                                                                                      \frac{1}{54} \; \mathsf{m_1} \; \mathsf{s_{\gamma}} \; \mathsf{g_1}^2 \; \mathsf{y_u}^{\mathsf{ili4}} \; \left( - \, \mathsf{s_{\gamma}} \; \overline{\mathsf{a_u}}^{\mathsf{i2i3}} + \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \right) \; \mathsf{LF_{2,1,1,0}} \big[ \, \mathsf{m_{\tilde{u}}}^{\mathsf{i3}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i2}} \big] \; + \\
                                                                                                                                                                          \frac{1}{54} m<sub>1</sub> s<sub>Y</sub> g<sub>1</sub><sup>2</sup> y<sub>u</sub><sup>i1i4</sup> (s<sub>Y</sub> \overline{a_u}^{i2i3} – \widetilde{\mu} c<sub>Y</sub> \overline{y_u}^{i2i3}) LF<sub>3,1,1,-1</sub>[m_{\widetilde{u}}^{i3}, m<sub>1</sub>, m_{\widetilde{q}}^{i2}] +
                                                                                                                                                                                          \mathsf{m_3} \; \mathsf{s_{\gamma}} \; \mathsf{g_{3}}^2 \; \mathsf{y_u}^{\mathsf{ili4}} \; \left( - \, \mathsf{s_{\gamma}} \; \overline{\mathsf{a_u}}^{\mathsf{i2i3}} + \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \right) \; \mathsf{LF_{2,1,1,0}} \left[ \, \mathsf{m_{\tilde{u}}}^{\mathsf{i3}} \, , \; \mathsf{m_{3}} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i2}} \, \right] \; + \\
                                                                                                                                                                                      ||\mathsf{m_3}| \mathsf{s_{\gamma}}| \mathsf{g_3}^2 \, \mathsf{y_u^{i1i4}} \, \left(\mathsf{s_{\gamma}}| \overline{\mathsf{a_u^{i2i3}}} - \tilde{\mu} \, \mathsf{c_{\gamma}}| \overline{\mathsf{y_u^{i2i3}}}\right) \, \mathsf{LF_{3,1,1,-1}} \big[ \mathsf{m_{\tilde{u}}^{i3}}, \, \mathsf{m_3}, \, \mathsf{m_{\tilde{q}}^{i2}} \big] \, + \, \mathsf{m_{\tilde{q}^{i3}}} \, \mathsf{m_{\tilde{q}
                                                                                                                                                                                                           m_{1}\,s_{\gamma}\,g_{1}{}^{2}\,\overline{y_{u}}{}^{i2i3}\,\left(-\,s_{\gamma}\,a_{u}{}^{i1i4}+\widetilde{\mu}\,c_{\gamma}\,y_{u}{}^{i1i4}\right)\,\mathsf{LF}_{2,1,1,0}\big[\,m_{\tilde{u}}{}^{i4},\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{\tilde{q}}\,m_{1},\,m_{
                                                                                                                                                          \frac{1}{54} \; \mathsf{m_1} \; \mathsf{s_{Y}} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_u}}^{\mathsf{i2i3}} \; \left( \mathsf{s_{Y}} \; \mathsf{a_u}^{\mathsf{i1i4}} - \widetilde{\mu} \; \mathsf{c_{Y}} \; \mathsf{y_u}^{\mathsf{i1i4}} \right) \; \mathsf{LF_{3,1,1,-1}} \big[ \, \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \big] \; + \\ \left( \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \right) \; + \\ \left( \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \right) \; + \\ \left( \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \right) \; + \\ \left( \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \right) \; + \\ \left( \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \right) \; + \\ \left( \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \right) \; + \\ \left( \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \right) \; + \\ \left( \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \right) \; + \\ \left( \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \right) \; + \\ \left( \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \right) \; + \\ \left( \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \right) \; + \\ \left( \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \right) \; + \\ \left( \mathsf{m_{\tilde{u}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \right) \; + \\ \left( \mathsf{m_{\tilde{q}}}^{\mathsf{i4}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \, , \; \mathsf{m_1} \, , \; \mathsf{m_1} \, , \; \mathsf{m_1} \, , \; \mathsf{m_1} \, , \; \mathsf{m_2} 
                                                                                                                                                          \frac{3}{a}\,m_3\,s_{\gamma}\,g_{3}{}^2\,\overline{y_{u}}{}^{i\,2\,i\,3}\,\left(-\,s_{\gamma}\,a_{u}{}^{i\,1\,i\,4}+\widetilde{\mu}\,\,c_{\gamma}\,y_{u}{}^{i\,1\,i\,4}\right)\,LF_{2,1,1,0}\big[\,m_{\tilde{u}}{}^{i\,4}\,,\,m_{3}\,,\,m_{\tilde{q}}\,m_{3}\,,\,m_{\tilde{q}}\,m_{3}\,,\,m_{\tilde{q}}\,m_{3}\,,\,m_{\tilde{q}}\,m_{3}\,,\,m_{\tilde{q}}\,m_{3}\,,\,m_{\tilde{q}}\,m_{3}\,,\,m_{\tilde{q}}\,m_{3}\,,\,m_{\tilde{q}}\,m_{3}\,,\,m_{\tilde{q}}\,m_{3}\,,\,m_{\tilde{q}}\,m_{3}\,,\,m_{\tilde{q}}\,m_{3}\,,\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{q}}\,m_{\tilde{
                                                                                                                                                                                          \mathsf{m_{3}} \; \mathsf{s_{\gamma}} \; \mathsf{g_{3}}^{2} \; \overline{\mathsf{y_{u}}}^{\mathsf{i2i3}} \; \left(\mathsf{s_{\gamma}} \; \mathsf{a_{u}}^{\mathsf{i1i4}} - \tilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{y_{u}}^{\mathsf{i1i4}}\right) \; \mathsf{LF_{3,1,1,-1}} \big[ \mathsf{m_{\tilde{u}}}^{\mathsf{i4}}, \; \mathsf{m_{3}}, \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \big] \; - \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \; \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} \, \mathsf{m_{\tilde{q}}}^{\mathsf{i1}} 
                                                                                                                                                                                      \widetilde{\mu}^2 \, \overline{y_d}^{i2p} \, y_d^{i1p} \, \overline{y_u}^{ri3} \, y_u^{ri4} \, \mathsf{LF}_{2,1,1,0} \big[ \widetilde{\mu}, \, \mathsf{m}_{\widetilde{d}}^{\,\,p}, \, \mathsf{m}_{\widetilde{q}}^{\,\,r} \big] -
                                                                                                                                                      \begin{array}{l} \frac{1}{4}\;\overline{y_u}^{\text{ri3}}\;\overline{y_u}^{\text{i2p}}\;y_u^{\,\text{ri4}}\;y_u^{\,\text{i1p}}\;\mathsf{LF}_{2,1,1,-1}\big[\,\tilde{\mu}\,,\,\mathsf{m}_{\bar{q}}{}^{\text{r}}\,,\,\mathsf{m}_{\bar{u}}{}^{\text{p}}\big] \end{array}
                                                                                                                                                          \frac{1}{54}~g_1^{~2}~\overline{y_u}^{i2i3}~y_u^{~i1i4}~LF_{1,1,1,1,-1}\big[m_1,~m_{\bar{q}}^{~i1},~m_{\bar{u}}^{~i3},~\widetilde{\mu}\big]~+
                                                                                                                                                      \frac{1}{216}\;g_{1}{}^{2}\;\overline{y_{u}}{}^{i}{}^{2}{}^{i}{}^{3}\;y_{u}{}^{i}{}^{1}{}^{i}{}^{4}\;\mathsf{LF}_{1,1,1,1,-1}\big[\,\mathsf{m}_{1}\,,\,\mathsf{m}_{\bar{\mathsf{q}}}{}^{i}{}^{2}\,,\,\mathsf{m}_{\bar{\mathsf{q}}}{}^{i}{}^{1}\,,\,\tilde{\mu}\,\big]\;-
                                                                                                                                                      \frac{1}{54}~g_{1}^{2}~\overline{y_{u}}^{\text{i2i3}}~y_{u}^{\text{i1i4}}~LF_{1,1,1,1,-1}\big[\,m_{1}\,,\,m_{\tilde{q}}^{\phantom{\dagger}\,\text{i2}}\,,\,m_{\tilde{u}}
                                                                                                                                                      \tfrac{2}{27}~g_1{}^2~\overline{y_u}^{\text{i2i3}}~y_u{}^{\text{i1i4}}~\mathsf{LF_{1,1,1,1,-1}}\big[\,\mathsf{m_1},~\mathsf{m_{\tilde{u}}}^{\text{i4}},~\mathsf{m_{\tilde{u}}}^{\text{i3}},~\tilde{\mu}\,\big]~+
                                                                                                                                                                                          \mathsf{g_2}^2\,\overline{\mathsf{y_u}}^{\mathsf{i2i3}}\,\mathsf{y_u}^{\mathsf{i1i4}}\,\mathsf{LF_{\mathsf{1,1,1,1,-1}}}\big[\,\mathsf{m_2}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i2}}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i1}}\,,\,\tilde{\mu}\,\big]\,\,-\,\,
                                                                                                                                                                                          g_3^2 \, \overline{y_u}^{i2i3} \, y_u^{i1i4} \, LF_{1,1,1,1,-1} \big[ \, m_3 \, , \, m_{\tilde{q}}^{\,\,i1} \, , \, m_{\tilde{u}}^{\,\,i3} \, , \, \widetilde{\mu} \, \big] +
                                                                                                                                                                                              \mathbf{g_3}^2\,\overline{\mathbf{y_u}}^{\text{i2i3}}\,\mathbf{y_u}^{\text{i1i4}}\,\mathsf{LF_{1,1,1,1,-1}}\big[\mathbf{m_3,\,m_{\tilde{q}}}^{\text{i2}},\,\mathbf{m_{\tilde{q}}}^{\text{i1}},\,\tilde{\mu}\big]\,-\,
                                                                                                                                                                                          \mathsf{g_3}^2\,\overline{\mathsf{y_u}}^{\mathsf{i2i3}}\,\mathsf{y_u}^{\mathsf{i1i4}}\,\mathsf{LF_{1,1,1,1,-1}}\big[\mathsf{m_3}\,,\,\mathsf{m_{\tilde{q}}}^{\mathsf{i2}},\,\mathsf{m_{\tilde{u}}}^{\mathsf{i4}},\,\tilde{\mu}\big]\,\,+\,\,
                                                                                                                                                                                          g_3^2 \overline{y_u}^{i2i3} y_u^{i1i4} LF_{1,1,1,1,-1}[m_3, m_{\tilde{u}}^{i4}, m_{\tilde{u}}^{i3}, \tilde{\mu}])
```