```
C_{\mathsf{qd}}^{\,\prime}
                                       ^{(1)} i1_i2_i3_i4_ 
ightarrow
                   -\frac{1}{6} \ \frac{1}{m_{\text{g}^2}} \ \text{S}_{\text{y}}^{\ 2} \ \overline{\text{y}_{\text{d}}}^{\text{1213}} \ \text{y}_{\text{d}}^{\text{1114}} + \text{h} \ \left(-\frac{1}{1296} \ \frac{1}{m_{\text{g}^2}} \ \left(81 \ \text{S}_{\text{y}}^{\ 2} \ \overline{\text{y}_{\text{d}}}^{\text{ri3}} \ \overline{\text{y}_{\text{d}}}^{\text{12p}} \ \left(12 \ \text{C}_{\text{y}}^{\ 2} \ \text{y}_{\text{d}}^{\text{ri4}} \ \text{y}_{\text{d}}^{\text{11p}} + \text{y}_{\text{d}}^{\text{rp}} \ \text{y}_{\text{d}}^{\text{1114}} \ \left(1 + \text{S}_{\text{y}}^{\ 2}\right)\right) + \frac{1}{2} \left(81 \ \text{S}_{\text{y}}^{\ 2} \ \overline{\text{y}_{\text{d}}}^{\text{ri3}} \ \overline{\text{y}_{\text{d}}}^{\text{12p}} \ \left(12 \ \text{C}_{\text{y}}^{\ 2} \ \text{y}_{\text{d}}^{\text{ri4}} \ \text{y}_{\text{d}}^{\text{11p}} + \text{y}_{\text{d}}^{\text{rp}} \ \text{y}_{\text{d}}^{\text{1114}} \ \left(1 + \text{S}_{\text{y}}^{\ 2}\right)\right) + \frac{1}{2} \left(81 \ \text{S}_{\text{y}}^{\ 2} \ \overline{\text{y}_{\text{d}}}^{\text{ri3}} \ \overline{\text{y}_{\text{d}}}^{\text{12p}} \ \left(12 \ \text{C}_{\text{y}}^{\ 2} \ \text{y}_{\text{d}}^{\text{ri4}} \ \text{y}_{\text{d}}^{\text{ri4}} \right) \right) + \frac{1}{2} \left(12 \ \text{C}_{\text{y}}^{\ 2} \ \overline{\text{y}_{\text{d}}}^{\text{ri4}} \ \overline{\text{y}_{\text{d}}}^{\text{ri4}} \ \overline{\text{y}_{\text{d}}}^{\text{ri4}} \ \left(1 + \text{S}_{\text{y}}^{\ 2}\right)\right) + \frac{1}{2} \left(12 \ \text{C}_{\text{y}}^{\ 2} \ \overline{\text{y}_{\text{d}}}^{\text{ri4}} \ \overline{\text{y}_{\text{d}}}^{\text{ri4}} \ \overline{\text{y}_{\text{d}}}^{\text{ri4}} \ \overline{\text{y}_{\text{d}}}^{\text{ri4}} \ \overline{\text{y}_{\text{d}}}^{\text{ri4}} \ \overline{\text{y}_{\text{d}}}^{\text{ri4}} \ \overline{\text{y}_{\text{d}}^{\text{ri4}}} \ \overline
                                                                                                                                                                                                                                                                                          s_{\textrm{y}}^{2} \, \left(81 \, \overline{y_{d}}^{\textrm{pr}} \, \overline{y_{d}}^{\textrm{i2i3}} \, \left(y_{d}^{\textrm{pi4}} \, y_{d}^{\textrm{i1r}} \, \left(1 + s_{\textrm{y}}^{\, 2}\right) - 8 \, c_{\textrm{y}}^{\, 2} \, y_{d}^{\textrm{pr}} \, y_{d}^{\textrm{i1i4}}\right) \, + \\
                                                                                                                                                                                                                                                                                                                                                                                            3 \overline{y_d}^{12i3} \left(4 y_d^{11i4} \left(2 g_1^2 + 27 g_2^2 + 168 g_3^2\right) - 9 y_d^{pi4} \overline{y_u}^{pr} y_u^{i1r} \left(-1 + c_{\gamma}^2\right)\right) + 0
                                                                                                                                                                                                                                                                                                                                                                                        \overline{y_d}^{\text{pi3}} \left( 27 \, \overline{y_u}^{\text{i2r}} \left( -y_d^{\text{i1i4}} \, y_u^{\text{pr}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\text{pi4}} \, y_u^{\text{i1r}} \right) + 2 \, g_1^{\, 2} \, y_d^{\text{pi4}} \, \delta_{\text{i1i2}} \right) \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i2}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, y_d^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i1i}} \left( -1 + c_{\chi}^{\, 2} \right) + 12 \, c_{\chi}^{\, 2} \, \delta_{\text{i
                                                                                                                                                                                                                                                                                          2\;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} s_{\gamma} g_{1}^{2} \frac{1}{m_{o}^{4}} \overline{y_{d}}^{i2i3} y_{d}^{i1i4} \left(2 s_{2\gamma} c_{\gamma} + s_{\gamma} c_{2\gamma}\right) LF_{1,0} \left[m_{\tilde{d}}^{-p}\right] -
                                                                                                                                                                \frac{2}{243} \sum_{\mathbf{p}} \mathbf{g_1}^4 \, \mathsf{LF_{3,0}} \left[ \mathbf{m_{\tilde{d}}}^{\mathbf{p}} \right] \, \delta_{\mathsf{ili2}} \, \delta_{\mathsf{i3i4}} +
                                                                                                                                                                \frac{5}{324} \sum_{p} g_{1}^{4} LF_{4,-1} [m_{\tilde{d}}^{p}] \delta_{i1i2} \delta_{i3i4} -
                                                                                                                                                                \frac{8}{1215} \sum_{\mathbf{p}} \mathbf{g_1}^4 \ \mathsf{LF_5,_{-2}} \left[ \mathbf{m_{\tilde{\mathbf{d}}}}^{\mathbf{p}} \right] \ \delta_{\mathsf{ili2}} \ \delta_{\mathsf{i3i4}} -
                                                                                                                                                                \frac{1}{2} \; s_{\gamma} \; \frac{1}{m_{0}^{4}} \; \overline{y_{d}}^{pr} \; \overline{y_{d}}^{i2i3} \; y_{d}^{pr} \; y_{d}^{i1i4} \; \left( - \, s_{2\,\gamma} \; c_{\gamma} \, + \, s_{\gamma}^{\,3} \right) \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,0} \left[ \, m_{\tilde{d}}^{\,\, r} \, \right] \; - \; \mathsf{LF}_{1,
                                                                                                                                                                \frac{1}{12} \sum_{p} s_{\gamma} g_{1}^{2} \frac{1}{m_{0}^{4}} \overline{y_{d}}^{i2i3} y_{d}^{i1i4} \left(2 s_{2\gamma} c_{\gamma} + s_{\gamma} c_{2\gamma}\right) LF_{1,0} \left[m_{\tilde{e}}^{p}\right] - \frac{1}{12} \left[m_{\tilde{e}}^{p}\right] - \frac{1}{12} \left[m_{\tilde{e}}^{p}\right] \left[m_{\tilde{e}}^{p}\right] - \frac{1}{12} \left[m_{\tilde{e}}^{p}\right] \left[m_{
                                                                                                                                                                \frac{2}{81} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{3,0}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i3i4}} \; + \; \frac{5}{108} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i3i4}} \; - \; \frac{1}{108} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i3i4}} \; - \; \frac{1}{108} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i3i4}} \; - \; \frac{1}{108} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i3i4}} \; - \; \frac{1}{108} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i3i4}} \; - \; \frac{1}{108} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i3i4}} \; - \; \frac{1}{108} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i3i4}} \; - \; \frac{1}{108} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i3i4}} \; - \; \frac{1}{108} \sum_{p} g_{1}{}^{4} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i3i4}} \; - \; \frac{1}{108} \sum_{p} g_{1} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i3i4}} \; - \; \frac{1}{108} \sum_{p} g_{1} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i3i4}} \; - \; \frac{1}{108} \sum_{p} g_{1} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i3i4}} \; - \; \frac{1}{108} \sum_{p} g_{1} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i1i3}} \; \delta_{\mathsf{i3i4}} \; - \; \frac{1}{108} \sum_{p} g_{1} \; \mathsf{LF_{4,-1}} \left[ \mathsf{m_{\tilde{e}}}^{p} \right] \; \delta_{\mathsf{i1i2}} \; \delta_{\mathsf{i1i3}} \; \delta_{\mathsf{i1
                                                                                                                                                                \frac{8}{405} \sum_{p} g_{1}^{4} LF_{5,-2} [m_{\tilde{e}}^{-p}] \delta_{i1i2} \delta_{i3i4} -
                                                                                                                                                                \frac{1}{6} \; s_{\gamma} \; \frac{1}{m_{\text{o}}^4} \; \overline{y_d}^{\text{i2i3}} \; y_d^{\text{i1i4}} \; \overline{y_e}^{\text{pr}} \; y_e^{\text{pr}} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, c_{\gamma} + s_{\gamma}^{\; 3} \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, c_{\gamma} + s_{\gamma}^{\; 3} \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; r} \, c_{\gamma} + s_{\gamma}^{\; 3} \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; 7} \; c_{\gamma} + s_{\gamma}^{\; 3} \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; 7} \; c_{\gamma} + s_{\gamma}^{\; 3} \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; 7} \; c_{\gamma} + s_{\gamma}^{\; 3} \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma} \; c_{\gamma} + s_{\gamma}^{\; 3} \right) \; LF_{1,0} \left[ \, m_{\tilde{e}}^{\; 7} \; c_{\gamma} + s_{\gamma}^{\; 3} \right] \; + \; \frac{1}{2} \; \left( - \, s_{2 \, \gamma
                                                                                                                                                                \frac{1}{12} \; s_{\gamma} \; \frac{1}{m_{0}{}^{4}} \; \overline{y_{d}}{}^{i2i3} \; y_{d}{}^{i1i4} \; \left( 2 \; \overline{y_{e}}{}^{pr} \; y_{e}{}^{pr} \; \left( s_{2 \; \gamma} \; c_{\gamma} - s_{\gamma}{}^{3} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( 2 \; s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; \right) \; LF_{1,0} \left[ m_{\tilde{l}}{}^{p} \right] \; - \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{2 \; \gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{\gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{\gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{\gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{\gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{\gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{\gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{\gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{\gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{\gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{\gamma} \right) \; + \\ \sum_{p} \; g_{1}{}^{2} \; \left( s_{2 \; \gamma} \; c_{\gamma} + s_{\gamma} \; c_{\gamma} \right) \; + \\ \sum_{p} \; g_{2}{}^{2} \; \left( s_{2 \; \gamma} \; c_
                                                                                                                                                                    \frac{1}{81} \sum_{p} g_{1}^{\ 4} \ \mathsf{LF}_{3,\theta} \left[ \mathsf{m}_{\bar{1}}^{\ p} \right] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} + \frac{5}{216} \sum_{p} g_{1}^{\ 4} \ \mathsf{LF}_{\mathsf{4,-1}} \left[ \mathsf{m}_{\bar{1}}^{\ p} \right] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} - \frac{1}{2} \left[ \mathsf{m}_{\mathsf{1}}^{\ \mathsf{1}} \mathsf{m}_{\mathsf{1}}^{\ \mathsf{1}} \mathsf{m}_{\mathsf{1}}^{\ \mathsf{1}} \mathsf{m}_{\mathsf{1}}^{\ \mathsf{1}} \mathsf{m}_{\mathsf{1}}^{\ \mathsf{1}} \right] \ \delta_{\mathsf{1}3\mathsf{1}4} - \frac{1}{2} \left[ \mathsf{m}_{\mathsf{1}}^{\ \mathsf{1}} \mathsf{m}_{\mathsf{
                                                                                                                                                                \frac{4}{405} \, \sum_{p} \, g_{1}{}^{4} \, \, \mathsf{LF}_{5,-2} \left[ \, \mathsf{m}_{\bar{l}}{}^{p} \, \right] \, \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, \, \delta_{\dot{1}3\dot{1}\dot{4}} \, - \, \frac{1}{12} \, \, \mathsf{S}_{\gamma} \, \, \frac{1}{\mathsf{m}_{\mathrm{o}}{}^{4}} \, \, \overline{\mathsf{y}_{d}}{}^{\dot{1}2\dot{1}\dot{3}} \, \, \mathsf{y}_{d}{}^{\dot{1}1\dot{1}\dot{4}}
                                                                                                                                                                                               \left(6\;\overline{y_{d}}^{pr}\;y_{d}^{pr}\;\left(-\,s_{2\,\gamma}\;c_{\gamma}\,+\,s_{\gamma}^{\;3}\right)\,+\,6\;c_{\gamma}\;\overline{y_{u}}^{pr}\;y_{u}^{\;pr}\;\left(\,s_{2\,\gamma}\,+\,s_{\gamma}\;c_{\gamma}\right)\right.\\ \left.+\,\sum_{p}\;g_{1}^{\;2}\;\left(\,2\;s_{2\,\gamma}\;c_{\gamma}\,+\,s_{\gamma}\;c_{2\,\gamma}\,\right)\right)\left(\,s_{2\,\gamma}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,+\,s_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,c_{\gamma}^{\;2}\,c_{\gamma}
                                                                                                                                                                                        \frac{5}{648} \sum_{p} g_{1}{}^{4} LF_{4,-1} \left[ m_{\tilde{q}}{}^{p} \right] \delta_{11i2} \delta_{13i4} - \frac{4}{1215} \sum_{p} g_{1}{}^{4} LF_{5,-2} \left[ m_{\tilde{q}}{}^{p} \right] \delta_{11i2} \delta_{13i4} + \frac{1}{1215} \delta_{1
                                                                                                                                                                        \frac{1}{6} \sum_{p} s_{\gamma} g_{1}^{2} \frac{1}{m_{o}^{4}} \overline{y_{d}}^{i2i3} y_{d}^{i1i4} \left(2 s_{2\gamma} c_{\gamma} + s_{\gamma} c_{2\gamma}\right) LF_{1,0} \left[m_{\tilde{u}}^{p}\right] - \frac{8}{243} \sum_{p} g_{1}^{4} LF_{3,0} \left[m_{\tilde{u}}^{p}\right] \delta_{i1i2} \delta_{i3i4} + \frac{1}{2} \left[m_{\tilde{u}}^{p}\right] \delta_{i1i2} \delta_{i1i2} \delta_{i1i4} + \frac{1}{2} \left[m_{\tilde{u}}^{p}\right] \delta_{i1i2} \delta_{i1i2} \delta_{i1i4} + \frac{1}{2} \left[m_{\tilde{u}}^{p}\right] \delta_{i1i2} \delta_{i1i4} + \frac{1}{2} \left[m_{\tilde{u}}^{p}\right] \delta_{i1i2} \delta_{i1i2} \delta_{i1i4} + \frac{1}{2} \left[m_{\tilde{u}}^{p}\right] \delta_{i1i2} \delta_{i1i2} \delta_{i1i2} \delta_{i1i4} + \frac{1}{2} \left[m_{\tilde{u}}^{p}\right] \delta_{i1i2} \delta
                                                                                                                                                                \frac{5}{81} \sum_{\mathbf{p}} \mathbf{g_1}^4 \ \mathsf{LF_{4,-1}} \big[ \ \mathsf{m_{\tilde{u}}}^{\mathbf{p}} \big] \ \delta_{\mathbf{1}\mathbf{1}\mathbf{1}\mathbf{2}} \ \delta_{\mathbf{1}\mathbf{3}\mathbf{1}\mathbf{4}} - \frac{32}{1215} \sum_{\mathbf{p}} \mathbf{g_1}^4 \ \mathsf{LF_{5,-2}} \big[ \ \mathsf{m_{\tilde{u}}}^{\mathbf{p}} \big] \ \delta_{\mathbf{1}\mathbf{1}\mathbf{1}\mathbf{2}} \ \delta_{\mathbf{1}\mathbf{3}\mathbf{1}\mathbf{4}} - \frac{32}{1215} \ \delta_{\mathbf{1}\mathbf{3}\mathbf{1}\mathbf{4}} - \frac{32}{12} \ \delta_{\mathbf{1}\mathbf{3}\mathbf{1}\mathbf{4} - \frac{32}{12}} \ \delta_{\mathbf{1}\mathbf{3}\mathbf{1}\mathbf{4}} - \frac{32}{12} \ 
                                                                                                                                                                    \frac{1}{2} \; \mathsf{S}_{\gamma} \; \mathsf{C}_{\gamma} \; \frac{1}{\mathsf{m_0}^4} \; \overline{\mathsf{y_d}}^{\text{i2i3}} \; \mathsf{y_d}^{\text{i1i4}} \; \overline{\mathsf{y_u}}^{\text{pr}} \; \mathsf{y_u}^{\text{pr}} \; \left(\mathsf{S}_{2 \; \gamma} + \mathsf{S}_{\gamma} \; \mathsf{C}_{\gamma}\right) \; \mathsf{LF}_{1,0} \left[\mathsf{m_{\tilde{u}}}^{\text{r}}\right] \; - \; \frac{1}{24} \; \mathsf{S}_{\gamma} \; \frac{1}{\mathsf{m_0}^4} \; \overline{\mathsf{y_d}}^{\text{i2i3}} \; \mathsf{y_d}^{\text{i1i4}} \; \overline{\mathsf{y_d}}^{\text{i2i3}} \; \mathsf{y_d}^{\text{i1i4}} \; \overline{\mathsf{y_d}}^{\text{i2i3}} \; \mathsf{y_d}^{\text{i2i4}} \; \overline{\mathsf{y_d}}^{\text{i2i4}} \; \overline
                                                                                                                                                                                               \left(3\;{s_{4}}_{\text{Y}}\;{c_{\text{Y}}}\;\left({g_{1}}^{2}+{g_{2}}^{2}\right)\;+\;{s_{\text{Y}}}\;\left({g_{1}}^{2}\;\left(-\,1\;+\;3\;{c_{2}}_{\text{Y}}^{\;2}\right)\;+\;3\;{g_{2}}^{2}\;\left(-\,1\;+\;{c_{2}}_{\text{Y}}^{\;2}\right)\right)\right)\;\text{LF}_{1,\theta}\left[\,\text{M}_{\Phi}\,\right]\;+\;3\;{g_{2}}^{2}\;\left(-\,1\;+\;{c_{2}}_{\text{Y}}^{\;2}\right)\;
                                                                                                                                                                \frac{1}{24} \ \frac{1}{m_0^2} \ s_{\gamma}^2 \ \left( 3 \ s_{\gamma}^2 \ \overline{y_d}^{pr} \ \overline{y_d}^{i2i3} \ y_d^{pi4} \ y_d^{i1r} + 3 \ y_d^{i1i4} \ \left( s_{\gamma}^2 \ \overline{y_d}^{ri3} \ \overline{y_d}^{i2p} \ y_d^{rp} - c_{\gamma}^2 \ \overline{y_d}^{pi3} \ \overline{y_u}^{i2r} \ y_u^{pr} \right) - c_{\gamma}^2 \ \overline{y_d}^{pi3} \ \overline{y_u}^{i2r} \ y_u^{pr} \right) - c_{\gamma}^2 \ \overline{y_d}^{pi3} \ \overline{y_u}^{i2r} \ y_u^{pr} + c_{\gamma}^2 \ \overline{y_d}^{pi3} \ \overline{y_u}^{pi3} \ 
                                                                                                                                                                                                                                                          \frac{1}{y_d}^{i2i3} \left( 2 y_d^{i1i4} \left( g_1^2 + 3 g_2^2 \right) + 3 c_{\chi}^2 y_d^{pi4} \overline{y_u}^{pr} y_u^{i1r} \right) \right) LF_{1,1}[m_{\Phi}] + \frac{1}{216} \left( \frac{1}{2} + \frac{1}{2} \left( \frac{1}{2} + \frac{1}{2} \left( \frac{1}{2} + \frac{1}{2
                                                                                                                                                                                               \left(s_{\gamma}^{2} \, \left(-108 \, c_{\gamma}^{2} \, \overline{y_{d}}^{\text{ri3}} \, \overline{y_{d}}^{\text{i2p}} \, y_{d}^{\text{ri4}} \, y_{d}^{\text{i1p}} + 9 \, \overline{y_{d}}^{\text{i2i3}} \, \left(y_{d}^{\text{i1i4}} \, \left(g_{1}^{2} + 3 \, g_{2}^{2}\right) + 2 \, c_{\gamma}^{2} \, y_{d}^{\text{pi4}} \, \overline{y_{u}}^{\text{pr}} \, y_{u}^{\text{i1r}}\right) + \right) + \left(s_{\gamma}^{2} \, \overline{y_{d}}^{\text{ri3}} \, \overline{y_{d}}^{\text{ri3}} \, \overline{y_{d}}^{\text{ri4}} \, y_{d}^{\text{ri4}} + 9 \, \overline{y_{d}}^{\text{ri2p}} + 9 \, \overline{y_{d}}^{\text{ri3}} \, \left(y_{d}^{\text{ri14}} \, \left(g_{1}^{2} + 3 \, g_{2}^{2}\right) + 2 \, c_{\gamma}^{2} \, y_{d}^{\text{pi4}} \, \overline{y_{u}}^{\text{pr}} \, y_{u}^{\text{ri1r}}\right) + \left(s_{\gamma}^{2} \, \overline{y_{d}}^{\text{ri3}} \, \overline{y_{d}}^{\text{ri3}} \, \overline{y_{d}}^{\text{ri3}} \, \overline{y_{d}}^{\text{ri3}} \, \overline{y_{d}}^{\text{ri3}} \, \overline{y_{d}}^{\text{ri3}} + 9 \, \overline{y_{d}}^{\text{ri3}} \, 
                                                                                                                                                                                                                                                                                                                                                        2\;\overline{y_{d}}^{\text{pi3}}\;\left(9\;c_{\gamma}^{\;2}\;\overline{y_{u}}^{\text{i2r}}\;\left(y_{d}^{\;\text{i1i4}}\;y_{u}^{\;\text{pr}}-6\;y_{d}^{\;\text{pi4}}\;y_{u}^{\;\text{i1r}}\right)\;-2\;g_{1}^{\;2}\;y_{d}^{\;\text{pi4}}\;\delta_{\text{i1i2}}\right)\right)\;-1
                                                                                                                                                                                                                                                          8 g_1^2 \left( s_{\gamma}^2 \overline{y_d}^{i2p} y_d^{i1p} - 2 c_{\gamma}^2 \overline{y_u}^{i2p} y_u^{i1p} \right) \delta_{i3i4} \right) LF_{1,2}[m_{\Phi}] +
                                                                                                                                                                                                                                                                                                                                                                                               ^{4} \overline{y_{d}}^{ri3} \overline{y_{d}}^{i2p} y_{d}^{ri4} y_{d}^{i1p} + s_{\chi}^{2} \overline{y_{d}}^{pi3} y_{d}^{pi4} \left(9 c_{\chi}^{2} \overline{y_{u}}^{i2r} y_{u}^{i1r} + g_{1}^{2} \delta_{i1i2}\right) +
                                                                                                                                                                                                                                                          {g_1}^2 \left( {s_{\gamma}}^2 \; \overline{y_d}^{i2p} \; {y_d}^{i1p} - {c_{\gamma}}^2 \; \overline{y_u}^{i2p} \; {y_u}^{i1p} \right) \; \delta_{i3i4} \right) \; \mathsf{LF}_{2,1}[\, m_{\scriptscriptstyle \oplus} \,] \; -
                                                                                                                                                                \frac{1}{324} \ g_1{}^2 \ \left(9 \ s_{\gamma}{}^2 \ \overline{y_d}{}^{\text{pi3}} \ y_d{}^{\text{pi4}} \ \delta_{\text{ili2}} + \ \left(9 \ s_{\gamma}{}^2 \ \overline{y_d}{}^{\text{i2p}} \ y_d{}^{\text{i1p}} - 9 \ c_{\gamma}{}^2 \ \overline{y_u}{}^{\text{i2p}} \ y_u{}^{\text{i1p}} + 4 \ g_1{}^2 \ \delta_{\text{ili2}} \right) \ \delta_{\text{i3i4}} \right)
                                                                                                                                                                                    \frac{1}{81} \ {\sf g_1}^4 \ {\sf LF_{3,0}} \ [\tilde{\mu}] \ \delta_{\sf ili2} \ \delta_{\sf i3i4} - \frac{1}{54} \ {\sf g_1}^4 \ {\sf LF_{4,-1}} \ [\tilde{\mu}] \ \delta_{\sf ili2} \ \delta_{\sf i3i4} + \\
                                                                                                                                                                    \frac{8}{405} \; {\rm g_1}^4 \; {\rm LF_{5,-2}} \left[ \tilde{\mu} \right] \; \delta_{\rm ili2} \; \delta_{\rm i3i4} + \frac{1}{54} \; {\rm g_1}^2 \; \frac{1}{{\rm m_0}^2} \; {\rm s_\gamma}^2 \; \overline{{\rm y_d}}^{\rm i2i3} \; {\rm y_d}^{\rm ili4} \; {\rm LF_{1,1,0}} \left[ {\rm m_1, \; m_d}^{\rm i3} \right] \; - \frac{1}{2} \; {\rm m_0}^2 \; {\rm m
                                                                                                                                                                \frac{1}{108} \ g_1{}^2 \ \frac{1}{m_0{}^2} \ s_\gamma{}^2 \ \overline{y_d}{}^{i2i3} \ y_d{}^{i1i4} \ \mathsf{LF}_{2,1,-1} \big[ \ m_1 \ , \ m_{\bar{d}}{}^{i3} \big] \ + \ \frac{1}{54} \ g_1{}^2 \ \frac{1}{m_0{}^2} \ s_\gamma{}^2 \ \overline{y_d}{}^{i2i3} \ y_d{}^{i1i4} \ \mathsf{LF}_{1,1,0} \big[ \ m_1 \ , \ m_{\bar{d}}{}^{i4} \big] \ - \ \frac{1}{54} \ g_1{}^2 \ \frac{1}{m_0{}^2} \ s_\gamma{}^2 \ \overline{y_d}{}^{i2i3} \ y_d{}^{i1i4} \ \mathsf{LF}_{1,1,0} \big[ \ m_1 \ , \ m_{\bar{d}}{}^{i4} \big] \ - \ \frac{1}{54} \ g_1{}^2 \ \frac{1}{m_0{}^2} \ s_\gamma{}^2 \ \overline{y_d}{}^{i2i3} \ y_d{}^{i1i4} \ \mathsf{LF}_{1,1,0} \big[ \ m_1 \ , \ m_{\bar{d}}{}^{i4} \big] \ - \ \frac{1}{54} \ g_1{}^2 \ \frac{1}{m_0{}^2} \ s_\gamma{}^2 \ \overline{y_d}{}^{i2i3} \ y_d{}^{i1i4} \ \mathsf{LF}_{1,1,0} \big[ \ m_1 \ , \ m_{\bar{d}}{}^{i4} \big] \ - \ \frac{1}{54} \ g_1{}^2 \ \frac{1}{m_0{}^2} \ s_\gamma{}^2 \ \overline{y_d}{}^{i2i3} \ y_d{}^{i1i4} \ \mathsf{LF}_{1,1,0} \big[ \ m_1 \ , \ m_{\bar{d}}{}^{i4} \big] \ - \ \frac{1}{54} \ g_1{}^2 \ \frac{1}{m_0{}^2} \ s_\gamma{}^2 \ \overline{y_d}{}^{i2i3} \ y_d{}^{i1i4} \ \mathsf{LF}_{1,1,0} \big[ \ m_1 \ , \ m_{\bar{d}}{}^{i4} \big] \ - \ \frac{1}{54} \ g_1{}^2 \ \frac{1}{m_0{}^2} \ s_\gamma{}^2 \ \overline{y_d}{}^{i2i3} \ y_d{}^{i1i4} \ \mathsf{LF}_{1,1,0} \big[ \ m_1 \ , \ m_{\bar{d}}{}^{i4} \big] \ - \ \frac{1}{54} \ \frac{1}{54} \ \frac{1}{34} \ \frac{
                                                                                                                                                                \frac{1}{108}\;g_{1}^{2}\;\frac{1}{m_{0}^{2}}\;s_{\gamma}^{2}\;\overline{y_{d}}^{\text{i2i3}}\;y_{d}^{\text{i1i4}}\;\mathsf{LF}_{2,1,-1}\big[\mathsf{m}_{1},\;\mathsf{m}_{\tilde{d}}^{\text{i4}}\big]\;-\;\frac{1}{486}\;g_{1}^{\;4}\;\mathsf{LF}_{2,1,0}\big[\mathsf{m}_{1},\;\mathsf{m}_{\tilde{d}}^{\text{i4}}\big]\;\delta_{\text{i1i2}}\;\delta_{\text{i3i4}}\;-\;\frac{1}{486}\;g_{1}^{\;4}\;\mathsf{LF}_{2,1,0}\big[\mathsf{m}_{1},\;\mathsf{m}_{\tilde{d}}^{\text{i4}}\big]\;\delta_{\text{i1i2}}\;\delta_{\text{i3i4}}\;-\;\frac{1}{486}\;g_{1}^{\;4}\;\mathsf{LF}_{2,1,0}\big[\mathsf{m}_{1},\;\mathsf{m}_{\tilde{d}}^{\text{i4}}\big]\;\delta_{\text{i1i2}}\;\delta_{\text{i3i4}}\;-\;\frac{1}{486}\;g_{1}^{\;4}\;\mathsf{LF}_{2,1,0}\big[\mathsf{m}_{1},\;\mathsf{m}_{\tilde{d}}^{\text{i4}}\big]\;\delta_{\text{i1i2}}\;\delta_{\text{i3i4}}\;-\;\frac{1}{486}\;g_{1}^{\;4}\;\mathsf{LF}_{2,1,0}\big[\mathsf{m}_{1},\;\mathsf{m}_{\tilde{d}}^{\text{i4}}\big]\;\delta_{\text{i1i2}}\;\delta_{\text{i3i4}}\;-\;\frac{1}{486}\;g_{1}^{\;4}\;\mathsf{LF}_{2,1,0}\big[\mathsf{m}_{1},\;\mathsf{m}_{\tilde{d}}^{\text{i4}}\big]\;\delta_{\text{i1i2}}\;\delta_{\text{i3i4}}\;-\;\frac{1}{486}\;g_{1}^{\;4}\;\mathsf{LF}_{2,1,0}\big[\mathsf{m}_{1},\;\mathsf{m}_{\tilde{d}}^{\text{i4}}\big]\;\delta_{\text{i1i2}}\;\delta_{\text{i3i4}}\;-\;\frac{1}{486}\;g_{1}^{\;4}\;\mathsf{LF}_{2,1,0}\big[\mathsf{m}_{1},\;\mathsf{m}_{\tilde{d}}^{\text{i4}}\big]\;\delta_{\text{i1i2}}\;\delta_{\text{i3i4}}\;-\;\frac{1}{486}\;g_{1}^{\;4}\;\mathsf{LF}_{2,1,0}\big[\mathsf{m}_{1},\;\mathsf{m}_{\tilde{d}}^{\text{i4}}\big]\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta_{\text{i1i2}}\;\delta
                                                                                                                                                                \frac{1}{486} \ g_1^{\ 4} \ \mathsf{LF}_{2,2,-1} \big[ \ \mathsf{m}_1 \ , \ \ \mathsf{m}_{\bar{\mathsf{d}}}^{\ i\, 4} \, \big] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} \ + \ \frac{1}{243} \ g_1^{\ 4} \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m}_1 \ , \ \ \mathsf{m}_{\bar{\mathsf{d}}}^{\ i\, 4} \, \big] \ \delta_{\mathsf{i}1\mathsf{i}2} \ \delta_{\mathsf{i}3\mathsf{i}4} \ - \ \mathsf{m}_{\mathsf{i}4} \ \delta_{\mathsf{i}4} \ \delta_{\mathsf{i}4}
                                                                                                                                                                \frac{1}{486} \ g_1{}^4 \ \mathsf{LF_{4,1,-2}} \big[ \mathsf{m_1, m_{\tilde{d}}}^{\text{i4}} \big] \ \delta_{\text{i1i2}} \ \delta_{\text{i3i4}} + \frac{1}{216} \ g_1{}^2 \ \frac{1}{\mathsf{m_s}^2} \ \mathsf{s_{\gamma}}^2 \ \overline{\mathsf{y_d}}^{\text{i2i3}} \ \mathsf{y_d}^{\text{i1i4}} \ \mathsf{LF_{1,1,0}} \big[ \mathsf{m_1, m_{\tilde{q}}}^{\text{i1}} \big] \ - \frac{1}{2} \ \mathsf{m_{\tilde{q}}}^{\text{i2i3}} \ \mathsf{y_d}^{\text{i2i3}} \ \mathsf{y_d}^{\text{i2i4}} \ \mathsf{h_{\tilde{q}}}^{\text{i2i3}} \ \mathsf{h_{\tilde{q}}}^{\text{i2i4}} \big] \ - \frac{1}{2} \ \mathsf{h_{\tilde{q}}}^{\text{i2i4}} \ \mathsf{h_{\tilde{q}}}^{
                                                                                                                                                                \frac{1}{432} \ g_1{}^2 \ \frac{1}{m_{\text{g}}{}^2} \ s_{\gamma}{}^2 \ \overline{y_d}{}^{\text{i2i3}} \ y_d{}^{\text{i1i4}} \ \mathsf{LF}_{2,1,-1} \big[ m_1 , \ m_{\tilde{q}}{}^{\text{i1}} \big] \ + \\ \frac{1}{216} \ g_1{}^2 \ \frac{1}{m_{\text{g}}{}^2} \ s_{\gamma}{}^2 \ \overline{y_d}{}^{\text{i2i3}} \ y_d{}^{\text{i1i4}} \ \mathsf{LF}_{1,1,0} \big[ m_1 , \ m_{\tilde{q}}{}^{\text{i2}} \big] \ - \\ \frac{1}{216} \ g_1{}^2 \ \frac{1}{m_{\text{g}}{}^2} \ s_{\gamma}{}^2 \ \overline{y_d}{}^{\text{i2i3}} \ y_d{}^{\text{i1i4}} \ \mathsf{LF}_{1,1,0} \big[ m_1 , \ m_{\tilde{q}}{}^{\text{i2}} \big] \ - \\ \frac{1}{216} \ g_1{}^2 \ \frac{1}{m_{\text{g}}{}^2} \ s_{\gamma}{}^2 \ \overline{y_d}{}^{\text{i2i3}} \ y_d{}^{\text{i1i4}} \ \mathsf{LF}_{1,1,0} \big[ m_1 , \ m_{\tilde{q}}{}^{\text{i2}} \big] \ - \\ \frac{1}{216} \ g_1{}^2 \ \frac{1}{m_{\text{g}}{}^2} \ s_{\gamma}{}^2 \ \overline{y_d}{}^{\text{i2i3}} \ y_d{}^{\text{i1i4}} \ \mathsf{LF}_{1,1,0} \big[ m_1 , \ m_{\tilde{q}}{}^{\text{i2}} \big] \ - \\ \frac{1}{216} \ g_1{}^2 \ \frac{1}{m_{\text{g}}{}^2} \ s_{\gamma}{}^2 \ \overline{y_d}{}^{\text{i2i3}} \ y_d{}^{\text{i1i4}} \ \mathsf{LF}_{1,1,0} \big[ m_1 , \ m_{\tilde{q}}{}^{\text{i2}} \big] \ - \\ \frac{1}{216} \ g_1{}^2 \ \frac{1}{m_{\text{g}}{}^2} \ s_{\gamma}{}^2 \ \overline{y_d}{}^{\text{i2i3}} \ y_d{}^{\text{i1i4}} \ \mathsf{LF}_{1,1,0} \big[ m_1 , \ m_{\tilde{q}}{}^{\text{i2i}} \big] \ - \\ \frac{1}{2} \ \frac{1}{2} \ \frac{1}{m_{\text{g}}{}^2} \ s_{\gamma}{}^2 \ \overline{y_d}{}^{\text{i2i3}} \ y_d{}^{\text{i1i4}} \ \mathsf{LF}_{1,1,0} \big[ m_1 , \ m_{\tilde{q}}{}^{\text{i2i}} \big] \ + \\ \frac{1}{2} \ \frac{1}{2} \ \frac{1}{m_{\text{g}}{}^2} \ s_{\gamma}{}^2 \ \overline{y_d}{}^{\text{i2i3}} \ y_d{}^{\text{i2i4}} \ \mathsf{LF}_{1,1,0} \big[ m_1 , \ m_{\tilde{q}}{}^{\text{i2i4}} \big] \ + \\ \frac{1}{2} \ 
                                                                                                                                                                    \frac{1}{432}\;g_{1}^{2}\;\frac{1}{\mathsf{m_{0}}^{2}}\;\mathsf{s_{\gamma}}^{2}\;\overline{\mathsf{y_{d}}}^{\mathsf{i2i3}}\;\mathsf{y_{d}}^{\mathsf{i1i4}}\;\mathsf{LF_{2,1,-1}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2i}}\big]\;-\;\frac{1}{1944}\;g_{1}^{4}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2}}\big]\;\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\;-\;\frac{1}{1944}\;g_{1}^{\mathsf{i1i}}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2}}\big]\;\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\;-\;\frac{1}{1944}\;g_{\mathsf{i1}}^{\mathsf{i2}}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2}}\big]\;\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\;-\;\frac{1}{1944}\;g_{\mathsf{i1}}^{\mathsf{i2}}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2}}\big]\;\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\;-\;\frac{1}{1944}\;g_{\mathsf{i1}}^{\mathsf{i2}}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2}}\big]\;\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\;-\;\frac{1}{1944}\;g_{\mathsf{i1}}^{\mathsf{i2}}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2}}\big]\;\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\;-\;\frac{1}{1944}\;g_{\mathsf{i1}}^{\mathsf{i2}}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2}}\big]\;\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\;-\;\frac{1}{1944}\;g_{\mathsf{i1}}^{\mathsf{i2}}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2}}\big]\;\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\;-\;\frac{1}{1944}\;g_{\mathsf{i1}}^{\mathsf{i2}}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2}}\big]\;\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\;-\;\frac{1}{1944}\;g_{\mathsf{i1}}^{\mathsf{i2}}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2}}\big]\;\;\delta_{\mathsf{i1i2}}\;\delta_{\mathsf{i3i4}}\;-\;\frac{1}{1944}\;g_{\mathsf{i1}}^{\mathsf{i2}}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2}}\big]\;\;\delta_{\mathsf{i3i4}}\;+\;\frac{1}{1944}\;g_{\mathsf{i1}}^{\mathsf{i2}}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2}}\big]\;\;\delta_{\mathsf{i3i4}}\;+\;\frac{1}{1944}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{\tilde{q}}}^{\mathsf{i2}}\big]\;\;\delta_{\mathsf{i3i4}}\;+\;\frac{1}{1944}\;\mathsf{LF_{2,1,0}}\big[\mathsf{m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{1},\,m_{
                                                                                                                                                            \frac{1}{1944}\;g_{1}{}^{4}\;\mathsf{LF_{4,1,-2}}\!\left[\mathsf{m_{1}},\;\mathsf{m_{\tilde{q}}}^{\dot{1}2}\right]\;\delta_{\dot{1}\dot{1}\dot{1}2}\;\delta_{\dot{1}\dot{3}\dot{1}4}\;+\;\frac{1}{6}\;g_{1}{}^{2}\;\frac{1}{\mathsf{m_{0}}^{4}}\;s_{\gamma}{}^{2}\;\overline{\mathsf{y_{d}}}^{\dot{1}2\dot{1}3}\;\mathsf{y_{d}}^{\dot{1}1\dot{1}4}\;\mathsf{LF_{1,1,-1}}\!\left[\mathsf{m_{1}},\;\tilde{\mu}\right]\;+\;\frac{1}{2}\;\mathsf{p_{1}}^{2}\;\mathsf{p_{2}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2}\;\mathsf{p_{3}}^{2
                                                                                                                                                                \frac{1}{8} g_2^2 \frac{1}{m_0^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{1,1,0}[m_2, m_{\tilde{q}}^{i1}] -
                                                                                                                                                                    \frac{1}{16} \ g_2^2 \ \frac{1}{m_e^2} \ s_{\gamma}^2 \ \overline{y_d}^{i2i3} \ y_d^{i1i4} \ \mathsf{LF}_{2,1,-1} \big[ \ \mathsf{m}_2 \, , \ \mathsf{m}_{\bar{q}}^{\ i1} \big] \ + \ \frac{1}{8} \ g_2^2 \ \frac{1}{m_e^2} \ s_{\gamma}^2 \ \overline{y_d}^{i2i3} \ y_d^{\ i1i4} \ \mathsf{LF}_{1,1,0} \big[ \ \mathsf{m}_2 \, , \ \mathsf{m}_{\bar{q}}^{\ i2} \big] \ - \ \frac{1}{8} \ g_2^2 \ \frac{1}{m_e^2} \ s_{\gamma}^2 \ \overline{y_d}^{i2i3} \ y_d^{\ i1i4} \ \mathsf{LF}_{1,1,0} \big[ \ \mathsf{m}_2 \, , \ \mathsf{m}_{\bar{q}}^{\ i2} \big] \ - \ \frac{1}{8} \ g_2^2 \ \frac{1}{m_e^2} \ s_{\gamma}^2 \ \overline{y_d}^{\ i2i3} \ y_d^{\ i1i4} \ \mathsf{LF}_{1,1,0} \big[ \ \mathsf{m}_2 \, , \ \mathsf{m}_{\bar{q}}^{\ i2} \big] \ - \ \frac{1}{8} \ g_2^2 
                                                                                                                                                                                                                                                                                                                         \frac{1}{{{m_0}^2}} \; {{s_{\gamma}}^2} \; \overline{{y_d}^{\text{i2i3}}} \; {{y_d}^{\text{i1i4}}} \; \mathsf{LF_{2,1,-1}} \big[ \; {m_2} \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; - \; \frac{1}{72} \; {g_1}^2 \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; {m_2} \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i1i2}} \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i1i2}} \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i1i2}} \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i1i2}} \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; g_2^2 \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_{\tilde{q}}^{\text{i2}} \big] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_2 \; , \; m_2 \; ] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; \mathsf{LF_{2,1,0}} \big[ \; m_2 \; , \; m_2 \; , \; m_2 \; ] \; \delta_{\text{i3i4}} \; - \; \frac{1}{72} \; \mathsf{LF_{2,1,0}} 
                                                                                                                                                                    \frac{1}{72}\; {g_{1}}^{2}\; {g_{2}}^{2}\; \mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{2}\,,\, \mathsf{m}_{\tilde{\mathsf{q}}}^{-\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}2}\; \delta_{\dot{1}\dot{3}\dot{1}4} + \frac{1}{36}\; {g_{1}}^{2}\; {g_{2}}^{2}\; \mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m}_{2}\,,\, \mathsf{m}_{\tilde{\mathsf{q}}}^{-\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}2}\; \delta_{\dot{1}3\dot{1}4} - \frac{1}{36}\; {g_{1}}^{2}\; {g_{2}}^{2}\; \mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m}_{2}\,,\, \mathsf{m}_{\tilde{\mathsf{q}}}^{-\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}2}\; \delta_{\dot{1}3\dot{1}4} - \frac{1}{36}\; {g_{1}}^{2}\; {g_{2}}^{2}\; \mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m}_{2}\,,\, \mathsf{m}_{\tilde{\mathsf{q}}}^{-\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}2}\; \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} - \frac{1}{36}\; {g_{1}}^{2}\; {g_{2}}^{2}\; \mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m}_{2}\,,\, \mathsf{m}_{\tilde{\mathsf{q}}}^{-\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\; \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{1}{36}\; {g_{1}}^{2}\; {g_{2}}^{2}\; \mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m}_{2}\,,\, \mathsf{m}_{\tilde{\mathsf{q}}}^{-\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\; \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{1}{36}\; {g_{1}}^{2}\; {g_{2}}^{2}\; \mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m}_{2}\,,\, \mathsf{m}_{\tilde{\mathsf{q}}}^{-\dot{1}\,2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\; \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{1}{36}\; {g_{1}}^{2}\; {g_{2}}^{2}\; {g_{2}}^{2}\; \mathsf{LF}_{3,1,-1}\!\left[\,\mathsf{m}_{2}\,,\, \mathsf{m}_{\tilde{\mathsf{q}}}^{2}\,\right]\; \delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}}\; \delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}}\; \delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{1}}\; \delta_{\dot{1}\dot{1}\dot{1}\dot{1}}\; \delta_{\dot{1}\dot{1}\dot{1}\dot{1}}\; \delta_{\dot{1}\dot{1}\dot{1}}\; \delta_{\dot{1}\dot{1}\dot{1}}\; \delta_{\dot{1}\dot{1}\dot{1}}\; \delta_{\dot{1}\dot{1}\dot{1}}\; \delta_{\dot{1}\dot{1}\dot{1}}\; \delta_{\dot{1}\dot{1}\dot{1}}\; \delta_{\dot{1}\dot{1}}\; \delta_{\dot{1}}\; \delta_{\dot{1}}\; \delta_{\dot{1}}\; \delta_{\dot{1}}\; \delta
                                                                                                                                                                    \frac{1}{m_e^4} \overline{y_d}^{i2i3} y_d^{i1i4} (c_{\gamma}^2 - 2 s_{\gamma}^2) LF_{1,1,0}[m_2, \widetilde{\mu}] +
                                                                                                                                                                \frac{2}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{1,1,0}[m_3, m_{\tilde{d}}^{i3}] - \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^{i3}] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^2] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^2] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{d}}^2] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^2] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i2i4} LF_{2,1,-1}[m_3, m_{\tilde{u}}^2] + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i2i4} + \frac{1}{9} g_3^2 \frac{1}{m_{\tilde{u}}^2} s_{
                                                                                                                                                                \frac{2}{9} \ g_3^2 \ \frac{1}{m_\text{o}^2} \ s_\text{y}^2 \ \overline{y_\text{d}}^\text{i2i3} \ y_\text{d}^\text{i1i4} \ \mathsf{LF}_\text{1,1,0} \left[ \, \mathsf{m}_3 \,, \, \mathsf{m}_\text{d}^\text{i4} \, \right] \ - \ \frac{1}{9} \ g_3^2 \ \frac{1}{m_\text{o}^2} \ s_\text{y}^2 \ \overline{y_\text{d}}^\text{i2i3} \ y_\text{d}^\text{i1i4} \ \mathsf{LF}_\text{2,1,-1} \left[ \, \mathsf{m}_3 \,, \, \mathsf{m}_\text{d}^\text{i4} \, \right] \ - \ \frac{1}{9} \ g_3^2 \ \frac{1}{m_\text{o}^2} \ s_\text{y}^2 \ \overline{y_\text{d}}^\text{i2i3} \ y_\text{d}^\text{i1i4} \ \mathsf{LF}_\text{2,1,-1} \left[ \, \mathsf{m}_3 \,, \, \mathsf{m}_\text{d}^\text{i4} \, \right] \ - \ \frac{1}{9} \ g_3^2 \ \frac{1}{m_\text{o}^2} \ s_\text{y}^2 \ \overline{y_\text{d}}^\text{i2i3} \ y_\text{d}^\text{i1i4} \ \mathsf{LF}_\text{2,1,-1} \left[ \, \mathsf{m}_3 \,, \, \mathsf{m}_\text{d}^\text{i4} \, \right] \ - \ \frac{1}{9} \ g_3^2 \ \frac{1}{m_\text{o}^2} \ s_\text{y}^2 \ \overline{y_\text{d}}^\text{i2i3} \ y_\text{d}^\text{i1i4} \ \mathsf{LF}_\text{2,1,-1} \left[ \, \mathsf{m}_3 \,, \, \mathsf{m}_\text{d}^\text{i4} \, \right] \ - \ \frac{1}{9} \ g_3^2 \ \frac{1}{m_\text{o}^2} \ s_\text{y}^2 \ \overline{y_\text{d}}^\text{i2i3} \ y_\text{d}^\text{i1i4} \ \mathsf{LF}_\text{2,1,-1} \left[ \, \mathsf{m}_3 \,, \, \, \mathsf{m}_\text{d}^\text{i4} \, \right] \ - \ \frac{1}{9} \ s_\text{d}^\text{i2i3} \ s_
                                                                                                                                                                \frac{2}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF}_{2,1,\theta}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{\mathsf{d}}}^{\,\mathsf{i}\,4}\right]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,-\,\frac{2}{81}\;g_{1}^{\,2}\;g_{3}^{\,2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{\mathsf{d}}}^{\,\mathsf{i}\,4}\right]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,+\,\frac{2}{81}\;g_{1}^{\,2}\;g_{3}^{\,2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{\mathsf{d}}}^{\,\mathsf{i}\,4}\right]\;\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,+\,\frac{2}{81}\;g_{1}^{\,2}\;g_{3}^{\,2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{\mathsf{d}}}^{\,\mathsf{i}\,4}\right]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,+\,\frac{2}{81}\;g_{1}^{\,2}\;g_{3}^{\,2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{\mathsf{d}}}^{\,\mathsf{i}\,4}\right]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,+\,\frac{2}{81}\;g_{1}^{\,2}\;g_{3}^{\,2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{\mathsf{d}}}^{\,\mathsf{i}\,4}\right]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,+\,\frac{2}{81}\;g_{1}^{\,2}\;g_{3}^{\,2}\;\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{3}\,,\,\mathsf{m}_{\bar{\mathsf{d}}}^{\,\mathsf{i}\,4}\right]\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,2}\,\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,4}\,+\,\frac{2}{81}\;g_{1}^{\,2}\;g_{1}^{\,2}\;g_{1}^{\,2}\;g_{1}^{\,2}\;g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,2}\,g_{1}^{\,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{4}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{3,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\check{\mathsf{d}}}^{\,\,\mathsf{i}\,\mathsf{i}\,\mathsf{4}}\,\big]\;\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}}\,-\,\frac{2}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\check{\mathsf{d}}}^{\,\,\mathsf{i}\,\mathsf{4}}\,\big]\;\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}}\,+\,\frac{2}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\check{\mathsf{d}}}^{\,\,\mathsf{i}\,\mathsf{4}}\,\big]\;\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}}\,+\,\frac{2}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\check{\mathsf{d}}}^{\,\,\mathsf{i}\,\mathsf{4}}\,\big]\,\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}}\;\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}}\,+\,\frac{2}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\check{\mathsf{d}}}^{\,\,\mathsf{i}\,\mathsf{4}}\,\big]\,\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}}\,\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{3}\,\mathsf{4}}\,+\,\frac{2}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\check{\mathsf{d}}}^{\,\,\mathsf{i}\,\mathsf{4}}\,\big]\,\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}}\,\delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{3}\,\mathsf{4}}\,+\,\frac{2}{81}\;g_{1}{}^{2}\;g_{3}{}^{2}\;\mathsf{LF}_{4,1,-2}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\check{\mathsf{d}}}^{\,\,\mathsf{i}\,\mathsf{4}}\,\big]\,\,\delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{3}\,\mathsf{4}}\,+\,\frac{2}{81}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\;g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_{1}{}^{2}\,g_
                                                                                                                                                                \frac{2}{9}\,g_{3}{}^{2}\,\frac{1}{m_{_{0}}{}^{2}}\,\,s_{_{\gamma}}{}^{2}\,\overline{y_{d}}{}^{i2i3}\,y_{d}{}^{i1i4}\,\mathsf{LF}_{1,1,9}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,-\,\frac{1}{9}\,g_{3}{}^{2}\,\frac{1}{m_{_{0}}{}^{2}}\,\,s_{_{\gamma}}{}^{2}\,\overline{y_{d}}{}^{i2i3}\,y_{d}{}^{i1i4}\,\mathsf{LF}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1,-1}\big[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{q}}{}^{i1}\big]\,+\,2\,\mathcal{F}_{2,1}\big[\,\mathsf{m}_{1}\,,\,\mathsf{m}_{1}\big]\,+\,2\,\mathcal{F}_{
                                                                                                                                                                \frac{2}{9} \; g_3^2 \; \frac{1}{m_0^2} \; s_\gamma^2 \; \overline{y_d}^{\text{i2i3}} \; y_d^{\text{i1i4}} \; \mathsf{LF}_{1,1,0} \left[ \, m_3 \, , \; m_{\tilde{q}}^{\,\, \text{i2}} \, \right] \; - \; \frac{1}{9} \; g_3^2 \; \frac{1}{m_0^2} \; s_\gamma^2 \; \overline{y_d}^{\text{i2i3}} \; y_d^{\,\, \text{i1i4}} \; \mathsf{LF}_{2,1,-1} \big[ \, m_3 \, , \; m_{\tilde{q}}^{\,\, \text{i2}} \, \right] \; - \; \frac{1}{9} \; g_3^2 \; \frac{1}{m_0^2} \; s_\gamma^2 \; \overline{y_d}^{\,\, \text{i2i3}} \; y_d^{\,\, \text{i1i4}} \; \mathsf{LF}_{2,1,-1} \big[ \, m_3 \, , \; m_{\tilde{q}}^{\,\, \text{i2}} \, \right] \; - \; \frac{1}{9} \; g_3^2 \; \frac{1}{m_0^2} \; s_\gamma^2 \; \overline{y_d}^{\,\, \text{i2i3}} \; y_d^{\,\, \text{i1i4}} \; \mathsf{LF}_{2,1,-1} \big[ \, m_3 \, , \; m_{\tilde{q}}^{\,\, \text{i2}} \, \right] \; - \; \frac{1}{9} \; g_3^2 \; \frac{1}{m_0^2} \; s_\gamma^2 \; \overline{y_d}^{\,\, \text{i2i3}} \; y_d^{\,\, \text{i1i4}} \; \mathsf{LF}_{2,1,-1} \big[ \, m_3 \, , \; m_{\tilde{q}}^{\,\, \text{i2i3}} \, y_d^{\,\, \text{i2i3}} \; y_
                                                                                                                                                                            \frac{2}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF}_{2,1,0}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,\,\dot{1}\,2}\,\right]\;\delta_{\dot{1}\dot{1}\dot{1}2}\;\delta_{\dot{1}\dot{3}\dot{1}4}\,-\,\frac{2}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,\,\dot{1}\,2}\,\right]\;\delta_{\dot{1}\dot{1}\dot{1}2}\;\delta_{\dot{1}3\dot{1}4}\,+\,\frac{2}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,\,\dot{1}\,2}\,\right]\;\delta_{\dot{1}\dot{1}\dot{1}2}\;\delta_{\dot{1}3\dot{1}4}\,+\,\frac{2}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,\,\dot{1}\,2}\,\right]\;\delta_{\dot{1}\dot{1}\dot{1}2}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\,+\,\frac{2}{81}\;g_{1}^{2}\;g_{3}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,\,\dot{1}\,2}\,\right]\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\,+\,\frac{2}{81}\;g_{1}^{2}\;g_{1}^{2}\;g_{2}^{2}\;\mathsf{LF}_{2,2,-1}\!\left[\,\mathsf{m}_{3}\,,\,\mathsf{m}_{\tilde{\mathsf{q}}}^{\,\,\dot{1}\,2}\,\right]\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\,+\,\frac{2}{81}\;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{q}}}^{\,\,\dot{1}\,2}\,\right]\;\delta_{\dot{1}\dot{1}\dot{1}\dot{2}}\;\delta_{\dot{1}\dot{3}\dot{1}\dot{4}}\,+\,\frac{2}{81}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{2}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{2}\;g_{1}^{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}^
                                                                                                                                                                                                               \mathsf{g_1}^2 \, \mathsf{g_3}^2 \, \mathsf{LF_{3,1,-1}} \big[ \, \mathsf{m_3} \, , \, \, \mathsf{m_{\tilde{q}}}^{\mathsf{i}\, \mathsf{2}} \, \big] \, \, \delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}} \, \, \delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}} \, - \, \frac{\mathsf{2}}{\mathsf{81}} \, \, \mathsf{g_1}^2 \, \, \mathsf{g_3}^2 \, \, \mathsf{LF_{4,1,-2}} \big[ \, \mathsf{m_3} \, , \, \, \mathsf{m_{\tilde{q}}}^{\,\mathsf{i}\,\mathsf{2}} \, \big] \, \, \delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}} \, \, \delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}} \, + \, \frac{\mathsf{2}}{\mathsf{81}} \, \, \mathsf{g_1}^2 \, \, \, \mathsf{g_3}^2 \, \, \mathsf{LF_{4,1,-2}} \big[ \, \mathsf{m_3} \, , \, \, \mathsf{m_{\tilde{q}}}^{\,\mathsf{i}\,\mathsf{2}} \, \big] \, \, \delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}} \, \, \delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}} \, + \, \frac{\mathsf{2}}{\mathsf{81}} \, \, \mathsf{g_1}^2 \, \, \, \mathsf{g_3}^2 \, \, \, \mathsf{LF_{4,1,-2}} \big[ \, \mathsf{m_3} \, , \, \, \mathsf{m_{\tilde{q}}}^{\,\mathsf{i}\,\mathsf{2}} \, \big] \, \, \delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}} \, \, \delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}} \, + \, \frac{\mathsf{2}}{\mathsf{2}} \, \, \mathsf{g_1}^2 \, \, \, \mathsf{g_2}^2 \, \, \mathsf{LF_{4,1,-2}} \big[ \, \mathsf{m_3} \, , \, \, \mathsf{m_{\tilde{q}}}^{\,\mathsf{i}\,\mathsf{2}} \, \big] \, \, \delta_{\mathsf{i}\,\mathsf{1}\,\mathsf{i}\,\mathsf{2}} \, \, \delta_{\mathsf{i}\,\mathsf{3}\,\mathsf{i}\,\mathsf{4}} \, + \, \frac{\mathsf{2}}{\mathsf{2}} \, \, \mathsf{g_1}^2 \, \, \mathsf{g_2}^2 \, \, \mathsf{g_2}^2 \, \, \mathsf{g_2}^2 \, \, \mathsf{g_2}^2 \, \, \mathsf{g_3}^2 \, \,
                                                                                                                                                                \frac{1}{12} \ \frac{1}{m_0^2} \ S_{\Upsilon}^{\ 2} \ \overline{y_d}^{\text{ri3}} \ \overline{y_d}^{\text{i2p}} \ y_d^{\text{rp}} \ y_d^{\text{i1i4}} \ \mathsf{LF}_{1,1,0} \left[ m_{\tilde{d}}^{\ p}, \ \widetilde{\mu} \right] - \frac{1}{27} \ g_1^2 \ \overline{y_d}^{\text{i2p}} \ y_d^{\text{i1p}} \ \mathsf{LF}_{2,1,0} \left[ m_{\tilde{d}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{\text{i3i4}} + \frac{1}{27} \ \delta_{\text{i3i4}} + \frac{1}{27}
                                                                                                                                                                    \frac{1}{54} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} \; \mathsf{LF_{2,2,-1}} \big[ \mathsf{m_{\bar{d}}^{-p}}, \; \widetilde{\mu} \big] \; \delta_{\mathsf{i3i4}} + \frac{1}{54} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} \; \mathsf{LF_{3,1,-1}} \big[ \mathsf{m_{\bar{d}}^{-p}}, \; \widetilde{\mu} \big] \; \delta_{\mathsf{i3i4}} + \frac{1}{54} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} \; \mathsf{LF_{3,1,-1}} \big[ \mathsf{m_{\bar{d}}^{-p}}, \; \widetilde{\mu} \big] \; \delta_{\mathsf{i3i4}} + \frac{1}{54} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} \; \mathsf{LF_{3,1,-1}} \big[ \mathsf{m_{\bar{d}}^{-p}}, \; \widetilde{\mu} \big] \; \delta_{\mathsf{i3i4}} + \frac{1}{54} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} \; \mathsf{LF_{3,1,-1}} \big[ \mathsf{m_{\bar{d}}^{-p}}, \; \widetilde{\mu} \big] \; \delta_{\mathsf{i3i4}} + \frac{1}{54} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i1p}} \; \mathsf{LF_{3,1,-1}} \big[ \mathsf{m_{\bar{d}}^{-p}}, \; \widetilde{\mu} \big] \; \delta_{\mathsf{i3i4}} + \frac{1}{54} \; \mathsf{g_1}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2p}} \; \mathsf{y_d}^{\mathsf{i2p}} \; \mathsf{LF_{3,1,-1}} \big[ \mathsf{m_{\bar{d}}^{-p}}, \; \widetilde{\mu} \big] \; \delta_{\mathsf{i3i4}} + \frac{1}{54} \; \mathsf{g_1}^2 \; \mathsf{y_d}^{\mathsf{i2p}} \; \mathsf{I_{3i4}} \; \mathsf{g_1}^{\mathsf{i2p}} \; \mathsf{g_2}^{\mathsf{i2p}} \; \mathsf{g_3}^{\mathsf{i2p}} \; \mathsf{g_3}^{\mathsf{i2p}
                                                                                                                                                                                            s_{\gamma} \, \frac{1}{m_{\text{B}}^4} \, \overline{y_d}^{\text{i2i3}} \, y_d^{\text{i1i4}} \, \left( \widetilde{\mu} \, \, c_{\gamma} \, \overline{y_d}^{\text{pr}} \, \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, 2} - 2 \, \, s_{\gamma}^{\, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_d^{\text{pr}} \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, 2} - 2 \, \, s_{\gamma}^{\, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_d^{\text{pr}} \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, 2} - 2 \, \, s_{\gamma}^{\, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_d^{\text{pr}} \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, 2} - 2 \, \, s_{\gamma}^{\, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_d^{\text{pr}} \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, 2} - 2 \, \, s_{\gamma}^{\, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_d^{\text{pr}} \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, 2} - 2 \, \, s_{\gamma}^{\, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_d^{\text{pr}} \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, 2} - 2 \, \, s_{\gamma}^{\, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_d^{\text{pr}} \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, 2} - 2 \, \, s_{\gamma}^{\, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_d^{\text{pr}} \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, 2} - 2 \, \, s_{\gamma}^{\, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_d^{\text{pr}} \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, 2} - 2 \, \, s_{\gamma}^{\, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_d^{\text{pr}} \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, 2} - 2 \, \, s_{\gamma}^{\, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_d^{\text{pr}} \right) \, \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, 2} - 2 \, \, s_{\gamma}^{\, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_d^{\text{pr}} \right) \, \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, \, 2} - 2 \, \, s_{\gamma}^{\, \, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \right) \, \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, \, 2} - 2 \, \, s_{\gamma}^{\, \, \, 2} \right) \, - 3 \, \, s_{\gamma} \, \widetilde{\mu} \, \right) \, \right) \, + \, \left( \left( a_d^{\text{pr}} \, \left( c_{\gamma}^{\, \, \, 2} - 2 \, \, s_{\gamma}^{\, \, \, 2} \right) \, \right) \, + \, \left( \left( c_{\gamma}^{\, \, \, \, 2} - 2 \, \, s_{\gamma}^{\, \, \, \, 2} \right) \, \right) \, + \, \left( \left( c_{\gamma}^{\, \, \, \, 2} - 2 \, \, s_{\gamma}^{\, \, \, \, 2} \right) \, \right) \, + \, \left( \left( c_{\gamma}^{\, \, \, \, \, 2} - 2 \, \, s_{\gamma}^{\, \, \, \, 2} \right) \, \right) \, + \, \left( \left( c_{\gamma}^{\, \, \, \, \, 2} - 2 \, \, s_{\gamma}^{
                                                                                                                                                                                                                                                      \frac{1}{12} \ \frac{1}{m_{\text{e}}^2} \ \text{S}_{\text{Y}}^{\ 2} \ \overline{\text{y}_{\text{d}}}^{\text{pr}} \ \overline{\text{y}_{\text{d}}}^{\text{i2i3}} \ \text{y}_{\text{d}}^{\text{pi4}} \ \text{y}_{\text{d}}^{\text{i1r}} \ \text{LF}_{1,1,0} \left[ \ \text{m}_{\tilde{\text{d}}}^{\text{r}} \ \text{,} \ \tilde{\mu} \right] + \frac{1}{243} \ \text{g}_{1}^{\ 4} \ \text{LF}_{2,1,0} \left[ \ \text{m}_{\tilde{\text{d}}}^{\text{i4}} \ \text{,} \ \text{m}_{1} \right] \ \delta_{\text{i1i}2} \ \delta_{\text{i3i4}} - \frac{1}{243} \ \delta_{\text{i3i4}} + \frac{1}{243} \ \delta_{\text{i3i4}} 
                                                                                                                                                                \frac{1}{486} \ g_1{}^4 \ \mathsf{LF}_{3,1,-1} \big[ \ \mathsf{m_{\bar{d}}}^{\dot{1}4}, \ \mathsf{m_1} \big] \ \delta_{\dot{1}\dot{1}\dot{2}} \ \delta_{\dot{1}3\dot{1}4} + \frac{4}{81} \ g_1{}^2 \ g_3{}^2 \ \mathsf{LF}_{2,1,0} \big[ \ \mathsf{m_{\bar{d}}}^{\dot{1}4}, \ \mathsf{m_3} \big] \ \delta_{\dot{1}\dot{1}\dot{2}} \ \delta_{\dot{1}3\dot{1}4} - \frac{1}{8} \ \mathsf{m_3} \big] 
                                                                                                                                                                \frac{2}{81} \; {\rm g_1}^2 \; {\rm g_3}^2 \; {\rm LF_{3,1,-1}} \big[ \, {\rm m_{\bar{d}}^{-i4}}, \; {\rm m_3} \, \big] \; \delta_{\rm ili2} \; \delta_{\rm i3i4} \; + \,
                                                                                                                                                                                            s_{\gamma} \, \frac{1}{m_{\text{e}}^4} \, \overline{y_d}^{\text{i2i3}} \, y_d^{\text{i1i4}} \, \left( \widetilde{\mu} \, \, c_{\gamma} \, \overline{y_e}^{\text{pr}} \, \left( a_e^{\text{pr}} \, \left( c_{\gamma}^{\ 2} - 2 \, s_{\gamma}^{\ 2} \right) \, - 3 \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_e^{\text{pr}} \right) \, + \\ \left( a_e^{\text{pr}} \, \left( a_e^{\text{pr}} \, \left( a_e^{\text{pr}} \, \left( a_e^{\text{pr}} \, a_e^{\text{pr}} \, a_e^{\text{pr}} \right) \right) + a_e^{\text{pr}} \, a_e^{\text{pr}} \, a_e^{\text{pr}} \right) \right) + \\ \left( a_e^{\text{pr}} \, \left( a_e^{\text{pr}} \, 
                                                                                                                                                                                                                                                          \overline{a_{e}}^{\text{pr}} \left( a_{e}^{\text{pr}} \left( 2 \; s_{\gamma} \; c_{\gamma}^{\; 2} - s_{\gamma}^{\; 3} \right) \; + \; \widetilde{\mu} \; c_{\gamma} \; y_{e}^{\text{pr}} \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \right) \right) \; \text{LF}_{\text{1,1,0}} \left[ m_{\tilde{e}}^{\; r} \; , \; m_{\tilde{l}}^{\; p} \right] \; + \; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{\phi}^{\; 2}} \; \overline{y_{d}}^{\, 12i3} \; \overline{y_{d}}^{\, 12i3
                                                                                                                                                                                        y_{d}^{\text{ili4}} \left( \widetilde{\mu} \, \overline{y_{e}}^{\text{pr}} \, \left( a_{e}^{\, \text{pr}} \, \left( - \, c_{\gamma}^{\, 2} + \, s_{\gamma}^{\, 2} \right) \, + \, 2 \, s_{\gamma} \, \widetilde{\mu} \, \, c_{\gamma} \, y_{e}^{\, \text{pr}} \right) \, + \, \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)
                                                                                                                                                                                        LF_{2,1,0}\left[\,m_{\tilde{l}}^{\;p}\,,\;m_{\tilde{e}}^{\;r}\,\right] \;+\; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; \frac{1}{m_{o}^{2}} \; \overline{y_{d}}^{i2i3} \; y_{d}^{\;i1i4} \; \left(\widetilde{\mu} \; \overline{y_{e}}^{pr} \; \left(\,a_{e}^{\;pr} \; \left(\,c_{\gamma}^{\;2} \,-\,s_{\gamma}^{\;2}\,\right) \,-\, 2 \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; y_{e}^{\;pr}\,\right) \;+\; \frac{1}{6} \; s_{\gamma} \; c_{\gamma} \; y_{e}^{\;pr} \; \left(\,a_{e}^{\;pr} \; \left(
                                                                                                                                                                                                                                                          \overline{a_e}^{pr} \left( 2 \, s_{\gamma} \, c_{\gamma} \, a_e^{pr} + \widetilde{\mu} \, y_e^{pr} \, \left( c_{\gamma}^{\, 2} - s_{\gamma}^{\, 2} \right) \right) \right) \, \mathsf{LF}_{3,1,-1} \big[ \, \mathsf{m}_{\tilde{l}}^{\, p}, \, \mathsf{m}_{\tilde{e}}^{\, r} \big] \, - \, \mathsf{m}_{\tilde{e}}^{\, p} \, \mathsf{m}_{\tilde{e}}^
                                                                                                                                                                    \frac{1}{6}\;c_{\gamma}^{\;2}\;\overline{y_{d}}^{i\,2\,i\,3}\;y_{d}^{\;i\,1\,i\,4}\;\left(c_{\gamma}\;\overline{a_{e}}^{pr}-s_{\gamma}\,\widetilde{\mu}\;\overline{y_{e}}^{pr}\right)\;\left(c_{\gamma}\;a_{e}^{\;pr}-s_{\gamma}\,\widetilde{\mu}\;y_{e}^{\;pr}\right)\;\mathsf{LF}_{3,1,0}\left[\,\mathsf{m}_{\tilde{l}}^{\;p}\,,\;\mathsf{m}_{\tilde{e}}^{\;r}\,\right]\;+
                                                                                                                                                                                            c_{\gamma}^{2}\,\overline{y_{d}}^{\text{i2i3}}\,y_{d}^{\,\text{i1i4}}\,\left(c_{\gamma}\,\overline{a_{e}}^{\text{pr}}-s_{\gamma}\,\widetilde{\mu}\,\overline{y_{e}}^{\text{pr}}\right)\,\left(c_{\gamma}\,a_{e}^{\,\text{pr}}-s_{\gamma}\,\widetilde{\mu}\,y_{e}^{\,\text{pr}}\right)\,\mathsf{LF}_{5,1,-2}\!\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,r}\,\right]\,+\,\mathsf{LF}_{5,1,-2}\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,r}\,\right]\,+\,\mathsf{LF}_{5,1,-2}\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,r}\,\right]\,+\,\mathsf{LF}_{5,1,-2}\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,r}\,\right]\,+\,\mathsf{LF}_{5,1,-2}\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,r}\,\right]\,+\,\mathsf{LF}_{5,1,-2}\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,r}\,\right]\,+\,\mathsf{LF}_{5,1,-2}\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,r}\,\right]\,+\,\mathsf{LF}_{5,1,-2}\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,r}\,\right]\,+\,\mathsf{LF}_{5,1,-2}\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,r}\,\right]\,+\,\mathsf{LF}_{5,1,-2}\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,r}\,\right]\,+\,\mathsf{LF}_{5,1,-2}\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,r}\,\right]\,+\,\mathsf{LF}_{5,1,-2}\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,r}\,\right]\,+\,\mathsf{LF}_{5,1,-2}\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,r}\,\right]\,+\,\mathsf{LF}_{5,1,-2}\left[\,\mathsf{m}_{\tilde{l}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\,\mathsf{m}_{\tilde{e}}^{\,p}\,,\,\,\,\mathsf{
                                                                                                                                                                \frac{1}{2} s_{\gamma} c_{\gamma} \frac{1}{m_{\sigma}^2} \overline{y_d}^{i2i3} y_d^{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)
                                                                                                                                                                                        \text{LF}_{2,1,9}\left[\,m_{\bar{q}}^{\;\;p}\,,\;m_{\bar{d}}^{\;\;r}\,\right] \;+\; \frac{1}{2} \;\; s_{\gamma} \;\; c_{\gamma} \;\; \frac{1}{m_{\text{o}}^{2}} \;\; \overline{y_{d}}^{\text{i2i3}} \;\; y_{d}^{\;\;\text{i1i4}} \;\; \left(\widetilde{\mu} \;\; \overline{y_{d}}^{pr} \;\; \left(\,a_{d}^{pr} \;\; \left(\,c_{\gamma}^{\;\;2} - s_{\gamma}^{\;\;2}\,\right) \;-\; 2 \;\; s_{\gamma} \; \widetilde{\mu} \;\; c_{\gamma} \;\; y_{d}^{\;pr}\,\right) \;\; +\; \frac{1}{2} \;\; s_{\gamma} \;\; \widetilde{\mu} \;\; c_{\gamma} \;\; y_{d}^{pr} \;\; \left(\,a_{d}^{pr} \;\; \left(\,a_{d}^{pr} \;\; \left(\,c_{\gamma}^{\;\;2} - s_{\gamma}^{\;\;2}\,\right) \;\; -\; 2 \;\; s_{\gamma} \; \widetilde{\mu} \;\; c_{\gamma} \;\; y_{d}^{pr}\,\right) \;\; +\; \frac{1}{2} \;\; s_{\gamma} \;\; \widetilde{\mu} \;\; c_{\gamma} \;\; y_{d}^{pr} \;\; \left(\,a_{d}^{pr} \;\; \left(\,a_{d}^{
                                                                                                                                                                                                                                                          \overline{a_d}^{pr} \left( 2 \, s_{\gamma} \, c_{\gamma} \, a_d^{pr} + \widetilde{\mu} \, y_d^{pr} \, \left( c_{\gamma}^{\, 2} - s_{\gamma}^{\, 2} \right) \right) \right) \, \mathsf{LF_{3,1,-1}} \big[ \, \mathsf{m_{\tilde{q}}}^{\, p}, \, \mathsf{m_{\tilde{d}}}^{\, r} \big] \, - \,
                                                                                                                                                                \frac{1}{2} \; c_{\gamma}^{\; 2} \; \overline{y_{d}^{\; 1213}} \; y_{d}^{\; 1114} \; \left( c_{\gamma} \; \overline{a_{d}}^{\; pr} - s_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; pr} \right) \; \left( c_{\gamma} \; a_{d}^{\; pr} - s_{\gamma} \; \widetilde{\mu} \; y_{d}^{\; pr} \right) \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; r} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; r} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; r} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; r} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; r} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; r} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; r} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; r} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; r} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; r} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; r} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; r} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; p} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; p} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; p} \, \right] \; + \; \mathsf{LF}_{3,1,0} \left[ \, \mathsf{m}_{\bar{q}}^{\; p} \, , \; \mathsf{m}_{\bar{d}}^{\; p
                                                                                                                                                                \frac{3}{2} \; c_{\gamma}^{\; 2} \; \overline{y_{d}}^{i\, 2i\, 3} \; y_{d}^{\; i\, 1i\, 4} \; \left( c_{\gamma} \; \overline{a_{d}}^{pr} - s_{\gamma} \, \widetilde{\mu} \; \overline{y_{d}}^{pr} \right) \; \left( c_{\gamma} \; a_{d}^{\; pr} - s_{\gamma} \, \widetilde{\mu} \; y_{d}^{\; pr} \right) \; LF_{4,1,-1} \big[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{d}}^{\; r} \, \big] \; - \, c_{\gamma}^{\; p} \; m_{\tilde{d}}^{\; pr} \, .
                                                                                                                                                        c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \left(c_{\gamma} \, \overline{a_{d}}^{pr} - s_{\gamma} \, \widetilde{\mu} \, \overline{y_{d}}^{pr}\right) \, \left(c_{\gamma} \, a_{d}^{pr} - s_{\gamma} \, \widetilde{\mu} \, y_{d}^{pr}\right) \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, r} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \left(c_{\gamma} \, a_{d}^{\,\, pr} - s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr}\right) \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, r} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \left(c_{\gamma} \, a_{d}^{\,\, pr} - s_{\gamma} \, \widetilde{\mu} \, y_{d}^{\,\, pr}\right) \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, r} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, r} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf{m}_{\bar{q}}^{\,\, p} \, , \, \, \mathsf{m}_{\bar{d}}^{\,\, p} \, \big] \, + \, c_{\gamma}^{\,\, p} \, \mathsf{LF}_{5,1,-2} \big[ \, \mathsf
                                                                                                                                                                \frac{1}{2} \; s_{\gamma} \; \frac{1}{m_{\text{p}}^4} \; \overline{y_d}^{\text{12i3}} \; y_d^{\text{11i4}} \; \left( c_{\gamma} \; \overline{a_u}^{\text{pr}} \; \left( -3 \; s_{\gamma} \; c_{\gamma} \; a_u^{\text{pr}} + \widetilde{\mu} \; y_u^{\text{pr}} \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \right) \right) + C_{\gamma}^{\text{pr}} \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - 2 \; s_{\gamma}^{\; 2} \right) \; \left
                                                                                                                                                                                                                                                      \widetilde{\mu} \; \overline{y_u}^{pr} \; \left( a_u^{\; pr} \; \left( c_\gamma^{\; 3} - 2 \; c_\gamma^{\; } \, s_\gamma^{\; 2} \right) \; - \; s_\gamma^{\; } \, \widetilde{\mu} \; y_u^{\; pr} \; \left( - 2 \; c_\gamma^{\; 2} + \; s_\gamma^{\; 2} \right) \right) \right) \; LF_{1,1,0} \left[ \, m_{\tilde{q}}^{\; p} \, , \; m_{\tilde{u}}^{\; r} \, \right] \; + \; c_\gamma^{\; 2} \, \left( a_u^{\; pr} \; 
                                                                                                                                                                \frac{1}{6} \ \frac{1}{m_0^2} \ S_{\gamma}^2 \ \overline{y_d}^{pr} \ \overline{y_d}^{i2i3} \ y_d^{pi4} \ y_d^{i1r} \ \mathsf{LF}_{1,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] - \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi3} \ y_d^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi3} \ y_d^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi3} \ y_d^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi3} \ y_d^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi3} \ y_d^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \overline{y_d}^{pi4} \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{q}}^{\ p}, \ \widetilde{\mu} \right] \ \delta_{i1i2} + \frac{1}{54} \ g_1^2 \ \mathsf{m}_{\bar{q}}^{\ p} \ \mathsf{
                                                                                                                                                                \frac{1}{108} \ g_1{}^2 \ \overline{y_d}{}^{pi3} \ y_d{}^{pi4} \ \mathsf{LF}_{2,2,-1} \big[ \ \mathsf{m}_{\bar{q}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{\mathsf{11i}2} + \frac{1}{108} \ g_1{}^2 \ \overline{y_d}{}^{pi3} \ y_d{}^{pi4} \ \mathsf{LF}_{\mathsf{3,1,-1}} \big[ \ \mathsf{m}_{\bar{q}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{\mathsf{11i}2} + \frac{1}{108} \ g_1{}^2 \ \overline{y_d}{}^{pi3} \ y_d{}^{pi4} \ \mathsf{LF}_{\mathsf{3,1,-1}} \big[ \ \mathsf{m}_{\bar{q}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{\mathsf{11i}2} + \frac{1}{108} \ \mathsf{m}_{\mathsf{11i}2} + \frac{1}{108} \ \mathsf{m}_{\mathsf{11
                                                                                                                                                                \frac{1}{6} \ \frac{1}{m_{\rm o}^2} \ {\rm S_{\rm Y}}^2 \ \overline{\rm y_d}^{\rm ri3} \ \overline{\rm y_d}^{\rm i2p} \ {\rm y_d}^{\rm rp} \ {\rm y_d}^{\rm i1i4} \ {\rm LF_{1,1,0}} \left[ \, {\rm m_{\tilde{\rm q}}}^{\, \rm r} \, , \ \widetilde{\mu} \, \right] \ + \\
                                                                                                                                                                \frac{1}{972} \ g_1{}^4 \ \mathsf{LF}_{2,1,0} \left[ \ \mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{1}2}, \ \mathsf{m}_1 \right] \ \delta_{\dot{1}\dot{1}\dot{2}} \ \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} - \frac{1}{1944} \ g_1{}^4 \ \mathsf{LF}_{3,1,-1} \left[ \ \mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{1}2}, \ \mathsf{m}_1 \right] \ \delta_{\dot{1}\dot{1}\dot{2}} \ \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{1}{1944} \ g_1{}^4 \ \mathsf{LF}_{3,1,-1} \left[ \ \mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{1}2}, \ \mathsf{m}_1 \right] \ \delta_{\dot{1}\dot{1}\dot{2}} \ \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{1}{1944} \ g_1{}^4 \ \mathsf{LF}_{3,1,-1} \left[ \ \mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{1}2}, \ \mathsf{m}_1 \right] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \ \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{1}{1944} \ g_1{}^4 \ \mathsf{LF}_{3,1,-1} \left[ \ \mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{1}2}, \ \mathsf{m}_1 \right] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \ \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{1}{1944} \ g_1{}^4 \ \mathsf{LF}_{3,1,-1} \left[ \ \mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{1}2}, \ \mathsf{m}_1 \right] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \ \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{1}{1944} \ g_1{}^4 \ \mathsf{LF}_{3,1,-1} \left[ \ \mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{1}2}, \ \mathsf{m}_1 \right] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \ \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{1}{1944} \ g_1{}^4 \ \mathsf{LF}_{3,1,-1} \left[ \ \mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{1}2}, \ \mathsf{m}_1 \right] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \ \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{1}{1944} \ g_1{}^4 \ \mathsf{LF}_{3,1,-1} \left[ \ \mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{1}2}, \ \mathsf{m}_1 \right] \ \delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{2}} \ \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \frac{1}{1944} \ \mathsf{m}_{\dot{\mathsf{q}}\dot{\mathsf{q}} + \frac{1}{1944} \ \mathsf{m}_{\dot{\mathsf{q}}\dot{\mathsf{q}} + \frac{1}{1944} \ \mathsf{m}_{\dot{\mathsf{q}}\dot{\mathsf{q}} + \frac{1}{1944} \ \mathsf{m}_{\dot{\mathsf{q}} + \frac{
                                                                                                                                                                \frac{1}{36}\ g_{1}{}^{2}\ g_{2}{}^{2}\ \mathsf{LF}_{2,1,0}\left[\mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{1}2},\ \mathsf{m}_{2}\right]\ \delta_{\dot{1}\dot{1}\dot{1}2}\ \delta_{\dot{1}\dot{3}\dot{1}4} - \frac{1}{72}\ g_{1}{}^{2}\ g_{2}{}^{2}\ \mathsf{LF}_{3,1,-1}\left[\mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{1}2},\ \mathsf{m}_{2}\right]\ \delta_{\dot{1}\dot{1}\dot{1}2}\ \delta_{\dot{1}3\dot{1}4} + \frac{1}{72}\ \mathsf{m}_{1}{}^{2}\ \mathsf{m}_{2} + \frac{1}{72}\ \mathsf{m}_{2}{}^{2}\ \mathsf{m}_{2} + \frac{1}{72}\ \mathsf{m
                                                                                                                                                                \frac{2}{27} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,1,0} \big[ \ m_{\tilde{u}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{i3i4} - \frac{1}{27} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,2,-1} \big[ \ m_{\tilde{u}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{i3i4} - \frac{1}{27} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i1p} \ \mathsf{LF}_{2,2,-1} \big[ \ m_{\tilde{u}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{i3i4} - \frac{1}{27} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,2,-1} \big[ \ m_{\tilde{u}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{i3i4} - \frac{1}{27} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,2,-1} \big[ \ m_{\tilde{u}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{i3i4} - \frac{1}{27} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,2,-1} \big[ \ m_{\tilde{u}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{i3i4} - \frac{1}{27} \ g_1{}^2 \ \overline{y_u}{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,2,-1} \big[ \ m_{\tilde{u}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{i3i4} - \frac{1}{27} \ g_1{}^2 \ y_u{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,2,-1} \big[ \ m_{\tilde{u}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{i3i4} - \frac{1}{27} \ g_1{}^2 \ y_u{}^{i2p} \ y_u{}^{i2p} \ y_u{}^{i2p} \ \mathsf{LF}_{2,2,-1} \big[ \ m_{\tilde{u}}{}^p \ , \ \widetilde{\mu} \, \big] \ \delta_{i3i4} - \frac{1}{27} \ g_1{}^2 \ y_u{}^{i2p} \ y_u{}^{i2p
                                                                                                                                                                    \frac{1}{27} \; g_1^2 \; \overline{y_u^{\text{i2p}}} \; y_u^{\text{i1p}} \; \mathsf{LF_{3,1,-1}} \big[ \mathsf{m}_u^{\text{-p}}, \; \widetilde{\mu} \, \big] \; \delta_{\text{i3i4}} + \frac{1}{2} \; \mathsf{s}_{\gamma} \; \mathsf{c}_{\gamma} \; \frac{1}{\mathsf{m}_0^{-2}} \; \overline{y_d^{\text{i2i3}}} \; y_d^{\text{i1i4}}
                                                                                                                                                                                               \left(\widetilde{\mu}\,\overline{y_u}^{pr}\,\left(a_u^{\,pr}\,\left(-\,c_{_{Y}}^{\,\,2}+\,s_{_{Y}}^{\,\,2}\right)\,-\,2\,\,s_{_{Y}}\,\widetilde{\mu}\,\,c_{_{Y}}\,y_u^{\,pr}\right)\,+\,\overline{a_u}^{pr}\,\left(2\,\,s_{_{Y}}\,c_{_{Y}}\,a_u^{\,pr}\,+\,\widetilde{\mu}\,\,y_u^{\,pr}\,\left(-\,c_{_{Y}}^{\,\,2}+\,s_{_{Y}}^{\,\,2}\right)\right)\right)
                                                                                                                                                                                        \text{LF}_{\text{2,1,0}}\left[\,m_{\bar{u}}^{\,\,r}\,,\,m_{\bar{q}}^{\,\,p}\,\right]\,+\,\frac{1}{2}\,\,s_{\gamma}\,\,c_{\gamma}\,\,\frac{1}{m_{o}^{\,2}}\,\,\overline{y_{d}}^{\,i\,2\,i\,3}\,\,y_{d}^{\,\,i\,1\,i\,4}\,\,\left(\widetilde{\mu}\,\,\overline{y_{u}}^{pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,c_{\gamma}^{\,\,2}\,-\,s_{\gamma}^{\,\,2}\,\right)\,+\,2\,\,s_{\gamma}\,\,\widetilde{\mu}\,\,c_{\gamma}\,\,y_{u}^{\,\,pr}\,\right)\,+\,2\,\,s_{\gamma}\,\,\widetilde{\mu}\,\,c_{\gamma}\,\,y_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,\left(\,a_{u}^{\,\,pr}\,\,a_{u}^{\,pr}\,\,a_{u}^{\,\,pr}\,\,a_{u}^{\,\,pr}\,\,a_{u}^{\,pr}\,\,a_{u}^{\,pr}\,\,a_{u}
                                                                                                                                                                                                                                                      \overline{a_u}^{\text{pr}} \left( -2 \; \textbf{s}_{\gamma} \; \textbf{c}_{\gamma} \; \textbf{a}_u^{\; \text{pr}} + \widetilde{\mu} \; \textbf{y}_u^{\; \text{pr}} \; \left( \textbf{c}_{\gamma}^{\; 2} - \textbf{s}_{\gamma}^{\; 2} \right) \right) \right) \; \text{LF}_{\textbf{3,1,-1}} \big[ \textbf{m}_{\widetilde{u}}^{\; \text{r}} \,, \; \textbf{m}_{\widetilde{q}}^{\; \text{p}} \big] \; - \; \text{The suppose of the suppose of
                                                                                                                                                            \frac{3}{2} \; c_{\gamma}^{\; 2} \; \overline{y_d}^{i2i3} \; y_d^{\; i1i4} \; \left( - \, s_{\gamma} \; \overline{a_u}^{pr} + \widetilde{\mu} \; c_{\gamma} \; \overline{y_u}^{pr} \right) \; \left( - \, s_{\gamma} \; a_u^{\; pr} + \widetilde{\mu} \; c_{\gamma} \; y_u^{\; pr} \right) \; \mathsf{LF_{4,1,-1}} \left[ \mathsf{m}_{\bar{u}}^{\; r} \, , \; \mathsf{m}_{\bar{q}}^{\; p} \right] \; - \; \mathsf{m}_{\bar{q}}^{\; p} \; 
                                                                                                                                                        c_{\text{Y}}^{2}\;\overline{y_{d}}^{i2i3}\;y_{d}^{\;i1i4}\;\left(-\,s_{\text{Y}}\;\overline{a_{u}}^{pr}+\widetilde{\mu}\;c_{\text{Y}}\;\overline{y_{u}}^{pr}\right)\;\left(-\,s_{\text{Y}}\;a_{u}^{\;pr}+\widetilde{\mu}\;c_{\text{Y}}\;y_{u}^{\;pr}\right)\;\mathsf{LF_{5,1,-2}}\!\left[\,\mathsf{m_{\tilde{u}}}^{\;r}\,,\;\mathsf{m_{\tilde{q}}}^{\,p}\,\right]\;+\,\left(\,-\,s_{\text{Y}}^{\;2}\;a_{u}^{\;pr}+\widetilde{\mu}\;c_{\text{Y}}^{\;2}\;y_{u}^{\;pr}\right)\;\mathsf{LF_{5,1,-2}}\!\left[\,\mathsf{m_{\tilde{u}}}^{\;r}\,,\;\mathsf{m_{\tilde{q}}}^{\,p}\,\right]\;+\,\left(\,-\,s_{\text{Y}}^{\;2}\;a_{u}^{\;pr}+\widetilde{\mu}\;c_{\text{Y}}^{\;p}\,y_{u}^{\;pr}\right)\;\mathsf{LF_{5,1,-2}}\!\left[\,\mathsf{m_{\tilde{u}}}^{\;r}\,,\;\mathsf{m_{\tilde{q}}}^{\,p}\,\right]\;+\,\left(\,-\,s_{\text{Y}}^{\;2}\;a_{u}^{\;pr}+\widetilde{\mu}\;c_{\text{Y}}^{\;p}\,y_{u}^{\;pr}\right)\;\mathsf{LF_{5,1,-2}}\!\left[\,\mathsf{m_{\tilde{u}}}^{\;r}\,,\;\mathsf{m_{\tilde{q}}}^{\,p}\,\right]\;+\,\left(\,-\,s_{\text{Y}}^{\;p}\,a_{u}^{\;pr}+\widetilde{\mu}\;c_{\text{Y}}^{\;p}\,y_{u}^{\;pr}\right)\;\mathsf{LF_{5,1,-2}}\!\left[\,\mathsf{m_{\tilde{u}}}^{\;r}\,,\;\mathsf{m_{\tilde{q}}}^{\,p}\,\right]\;+\,\left(\,-\,s_{\text{Y}}^{\;p}\,a_{u}^{\;pr}+\widetilde{\mu}\;c_{\text{Y}}^{\;p}\,y_{u}^{\;pr}\right)\;\mathsf{LF_{5,1,-2}}\!\left[\,\mathsf{m_{\tilde{u}}}^{\;r}\,,\;\mathsf{m_{\tilde{q}}}^{\,p}\,\right]\;+\,\left(\,-\,s_{\text{Y}}^{\;p}\,a_{u}^{\;pr}+\widetilde{\mu}\;c_{\text{Y}}^{\;p}\,y_{u}^{\;pr}\right)\;\mathsf{LF_{5,1,-2}}\!\left[\,\mathsf{m_{\tilde{u}}}^{\;r}\,,\;\mathsf{m_{\tilde{q}}}^{\,p}\,\right]\;+\,\left(\,-\,s_{\text{Y}}^{\;p}\,a_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;p}\,x_{u}^{\;
                                                                                                                                                                \frac{1}{12} \ \frac{1}{m_{e}^{2}} \ s_{\gamma}^{2} \ \left( \overline{y_{d}}^{\text{pi3}} \ y_{d}^{\text{ili4}} \ \overline{y_{u}}^{\text{i2r}} \ y_{u}^{\text{pr}} + \overline{y_{d}}^{\text{i2i3}} \ y_{d}^{\text{pi4}} \ \overline{y_{u}}^{\text{pr}} \ y_{u}^{\text{ilr}} \right) \ \mathsf{LF}_{1,1,0} \left[ m_{\tilde{u}}^{\,\, r}, \ \widetilde{\mu} \right] + \frac{1}{3} \left[ m_{\tilde{u}}^{\,\, r}, \ \widetilde{\mu} \right] + \frac{1
                                                                                                                                                                \frac{1}{3} \text{ m}_{1} \text{ s}_{\gamma} \, \widetilde{\mu} \text{ c}_{\gamma} \, g_{1}^{2} \, \frac{1}{m_{\text{o}}^{2}} \, \overline{\text{yd}}^{\text{i}2\text{i}3} \, y_{\text{d}}^{\text{i}1\text{i}4} \, \left(-\, c_{\gamma}^{2} + s_{\gamma}^{\, 2}\right) \, \text{LF}_{2,\text{l},\text{0}} \left[\, \widetilde{\mu} \,, \, m_{\text{l}} \,\right] \, + \, \left(-\, c_{\gamma}^{2} + s_{\gamma}^{2}\right) \, \left(-\, c_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2}\right) \, \left(-\, c_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2}\right) \, \left(-\, c_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2}\right) \, \left(-\, c_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2}\right) \, \left(-\, c_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2}\right) \, \left(-\, c_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2}\right) \, \left(-\, c_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2} + s_{\gamma}^{2}\right) \, \left(-\, c_{\gamma}^{2} + s_{\gamma}^{2} + s_
                                                                                                                                                                \frac{1}{3} c_{\gamma} g_{1}^{2} \frac{1}{m_{e}^{2}} \overline{y_{d}}^{i2i3} y_{d}^{i1i4} \left( c_{\gamma} m_{\Phi}^{2} + m_{1} s_{\gamma} \widetilde{\mu} \left( c_{\gamma}^{2} - s_{\gamma}^{2} \right) \right) LF_{3,1,-1}[\widetilde{\mu}, m_{1}] +
                                                                                                                                                                \frac{1}{3} \text{ m}_{1} \text{ s}_{\gamma} \, \widetilde{\mu} \, g_{1}^{2} \, c_{\gamma}^{3} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{3,1,\theta} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \, \mathsf{m}_{1}] \, - \frac{2}{3} \, g_{1}^{2} \, c_{\gamma}^{2} \, \overline{y_{d}}^{i2i3} \, y_{d}^{i1i4} \, \mathsf{LF}_{4,1,-2} \, [\widetilde{\mu}, \,
                                                                                                                                                    \frac{2}{3} m<sub>1</sub> s<sub>\gamma</sub> \tilde{\mu} g<sub>1</sub><sup>2</sup> c<sub>\gamma</sub><sup>3</sup> \overline{y_d}^{i2i3} y<sub>d</sub><sup>i1i4</sup> LF<sub>5,1,-2</sub> [\tilde{\mu}, m<sub>1</sub>] +
                                                                                                                                                        \mathsf{m_2} \; \mathsf{s_{\gamma}} \; \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_2}^2 \; \tfrac{1}{\mathsf{m_s}^2} \; \overline{\mathsf{y_d}}^{\mathsf{i2i3}} \; \mathsf{y_d}^{\mathsf{i1i4}} \; \left(-\, \mathsf{c_{\gamma}}^2 + \mathsf{s_{\gamma}}^2\right) \; \mathsf{LF_{2,1,0}} \left[\, \widetilde{\mu} \, , \; \mathsf{m_2} \, \right] \; + \\
                                                                                                                                                        c_{\gamma}\;g_{2}^{\;2}\;\frac{_{1}}{^{m_{_{0}}^{\;2}}}\;\overline{y_{d}}^{\text{i2i3}}\;y_{d}^{\;\text{i1i4}}\;\left(c_{\gamma}\;m_{_{0}}^{\;2}+m_{_{2}}\;s_{_{\gamma}}\,\widetilde{\mu}\;\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\right)\;\mathsf{LF}_{3,\text{l,-1}}\left[\,\widetilde{\mu}\,,\;m_{_{2}}\,\right]\;+\,\left(\,c_{\gamma}^{\;2}+m_{_{2}}^{\;2}\,s_{_{\gamma}}\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\right)\;\mathsf{LF}_{3,\text{l,-1}}\left[\,\widetilde{\mu}\,,\;m_{_{2}}\,\right]\;+\,\left(\,c_{\gamma}^{\;2}+m_{_{2}}^{\;2}\,s_{_{\gamma}}\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\right)\;\mathsf{LF}_{3,\text{l,-1}}\left[\,\widetilde{\mu}\,,\;m_{_{2}}\,\right]\;+\,\left(\,c_{\gamma}^{\;2}+m_{_{2}}^{\;2}\,s_{_{\gamma}}\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\right)\;\mathsf{LF}_{3,\text{l,-1}}\left[\,\widetilde{\mu}\,,\;m_{_{2}}\,\right]\;+\,\left(\,c_{\gamma}^{\;2}+m_{_{2}}^{\;2}\,s_{_{\gamma}}\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\right)\;\mathsf{LF}_{3,\text{l,-1}}\left[\,\widetilde{\mu}\,,\;m_{_{2}}\,\right]\;+\,\left(\,c_{\gamma}^{\;2}+m_{_{2}}^{\;2}\,s_{_{\gamma}}\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\right)\;\mathsf{LF}_{3,\text{l,-1}}\left[\,\widetilde{\mu}\,,\;m_{_{2}}\,\right]\;+\,\left(\,c_{\gamma}^{\;2}+m_{_{2}}^{\;2}\,s_{_{\gamma}}\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\right)\;\mathsf{LF}_{3,\text{l,-1}}\left[\,\widetilde{\mu}\,,\;m_{_{2}}\,\right]\;+\,\left(\,c_{\gamma}^{\;2}+m_{_{2}}^{\;2}\,s_{_{\gamma}}\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\right)\;\mathsf{LF}_{3,\text{l,-1}}\left[\,\widetilde{\mu}\,,\;m_{_{2}}\,s_{_{\gamma}}\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\mathsf{LF}_{3,\text{l,-1}}\left[\,\widetilde{\mu}\,,\;m_{_{2}}\,s_{_{\gamma}}\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\mathsf{LF}_{3,\text{l,-1}}\left[\,\widetilde{\mu}\,,\;m_{_{2}}\,s_{_{\gamma}}\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\mathsf{LF}_{3,\text{l,-1}}\left[\,\widetilde{\mu}\,,\;m_{_{2}}\,s_{_{\gamma}}\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\mathsf{LF}_{3,\text{l,-1}}\left[\,\widetilde{\mu}\,,\;m_{_{2}}\,s_{_{\gamma}}\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\widetilde{\mu}\,\left(c_{\gamma}^{\;2}-s_{\gamma}^{\;2}\right)\,\mathsf{LF}_{3,\text{l,-1}}\left[\,\widetilde{\mu}\,,\;m_{_{2}}\,s_{_{\gamma}}\,\widetilde{\mu}\,\right]\,
                                                                                                                                                        3 m_2 s_\gamma \tilde{\mu} g_2^2 c_\gamma^3 \overline{y_d}^{i2i3} y_d^{i1i4} LF<sub>4,1,-1</sub> [\tilde{\mu}, m_2] +
                                                                                                                                                        \mathsf{g_2}^2 \; \mathsf{c_{\gamma}}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2i3}} \; \mathsf{y_d}^{\mathsf{i1i4}} \; \mathsf{LF_{5,1,-3}} \left[ \widetilde{\mu} \; , \; \mathsf{m_2} \right] \; + \; 2 \; \mathsf{m_2} \; \mathsf{s_{\gamma}} \; \widetilde{\mu} \; \mathsf{g_2}^2 \; \mathsf{c_{\gamma}}^3 \; \overline{\mathsf{y_d}}^{\mathsf{i2i3}} \; \mathsf{y_d}^{\mathsf{i1i4}} \; \mathsf{LF_{5,1,-2}} \left[ \widetilde{\mu} \; , \; \mathsf{m_2} \right] \; - \; \mathsf{m_2} \; \mathsf{v_{\gamma}} \; \widetilde{\mu} \; \mathsf{v_{\gamma}} \; \mathsf{v_{\gamma}} \; \widetilde{\mu} \; \mathsf{v_{\gamma}} \; \mathsf{v_{\gamma}} \; \widetilde{\mu} \; \mathsf{v_{\gamma}} \; \mathsf
                                                                                                                                                                \frac{1}{24} \; \frac{1}{m_{\text{g}}^{2}} \; \text{S}_{\text{Y}}^{2} \; \overline{\text{y}_{\text{d}}}^{\text{i2p}} \; \text{y}_{\text{d}}^{\text{i2p}} \; \text{y}_{\text{d}}^{\text{i1i4}} \; \text{LF}_{2,1,-1} \big[ \tilde{\mu} \; , \; \text{m}_{\tilde{\text{d}}}^{\text{p}} \big] \; + \; \frac{1}{54} \; \text{g}_{1}^{2} \; \overline{\text{y}_{\text{d}}}^{\text{i2p}} \; \text{y}_{\text{d}}^{\text{i1p}} \; \text{LF}_{2,1,0} \big[ \tilde{\mu} \; , \; \text{m}_{\tilde{\text{d}}}^{\text{p}} \big] \; \delta_{\text{i3i4}} \; + \; \frac{1}{54} \; \text{g}_{1}^{2} \; \overline{\text{y}_{\text{d}}}^{\text{i2p}} \; \text{y}_{\text{d}}^{\text{i1p}} \; \text{LF}_{2,1,0} \big[ \tilde{\mu} \; , \; \text{m}_{\tilde{\text{d}}}^{\text{p}} \big] \; \delta_{\text{i3i4}} \; + \; \frac{1}{54} \; \text{g}_{1}^{2} \; \overline{\text{y}_{\text{d}}}^{\text{i2p}} \; \text{y}_{\text{d}}^{\text{i1p}} \; \text{LF}_{2,1,0} \big[ \tilde{\mu} \; , \; \text{m}_{\tilde{\text{d}}}^{\text{p}} \big] \; \delta_{\text{i3i4}} \; + \; \frac{1}{54} \; \frac{1}{34} 
                                                                                                                                                                \frac{5}{108} \text{ g}_{1}{}^{2} \, \overline{\text{y}_{d}}{}^{12p} \, \text{y}_{d}{}^{11p} \, \text{LF}_{3,1,-1} \big[ \widetilde{\mu} \, , \, \text{m}_{\bar{d}}{}^{p} \big] \, \delta_{\dot{1}3\dot{1}4} - \frac{1}{108} \, \text{g}_{1}{}^{2} \, \overline{\text{y}_{d}}{}^{\dot{1}2p} \, \text{y}_{d}{}^{\dot{1}1p} \, \text{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \, \text{m}_{\bar{d}}{}^{p} \big] \, \delta_{\dot{1}3\dot{1}4} - \frac{1}{108} \, \text{g}_{1}{}^{2} \, \overline{\text{y}_{d}}{}^{\dot{1}2p} \, \text{y}_{d}{}^{\dot{1}1p} \, \text{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \, \text{m}_{\bar{d}}{}^{p} \big] \, \delta_{\dot{1}3\dot{1}4} - \frac{1}{108} \, \text{g}_{1}{}^{2} \, \overline{\text{y}_{d}}{}^{\dot{1}2p} \, \text{y}_{d}{}^{\dot{1}1p} \, \text{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \, \text{m}_{\bar{d}}{}^{p} \big] \, \delta_{\dot{1}3\dot{1}4} - \frac{1}{108} \, \text{g}_{1}{}^{2} \, \overline{\text{y}_{d}}{}^{\dot{1}2p} \, \text{y}_{d}{}^{\dot{1}1p} \, \text{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \, \text{m}_{\bar{d}}{}^{\dot{1}2p} \big] \, \delta_{\dot{1}3\dot{1}4} - \frac{1}{108} \, \text{g}_{1}{}^{2} \, \overline{\text{y}_{d}}{}^{\dot{1}2p} \, \text{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \, \text{m}_{\bar{d}}{}^{\dot{1}2p} \big] \, \delta_{\dot{1}3\dot{1}4} - \frac{1}{108} \, \text{g}_{1}{}^{\dot{1}2p} \, \text{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \, \text{m}_{\bar{d}}{}^{\dot{1}2p} \big] \, \delta_{\dot{1}3\dot{1}4} - \frac{1}{108} \, \text{g}_{1}{}^{\dot{1}2p} \, \text{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \, \text{m}_{\bar{d}}{}^{\dot{1}2p} \big] \, \delta_{\dot{1}3\dot{1}4} - \frac{1}{108} \, \text{g}_{1}{}^{\dot{1}2p} \, \text{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \, \text{m}_{\bar{d}}{}^{\dot{1}2p} \big] \, \delta_{\dot{1}3\dot{1}4} - \frac{1}{108} \, \text{g}_{1}{}^{\dot{1}2p} \, \text{LF}_{4,1,-2} \big[ \widetilde{\mu} \, , \, \text{m}_{\bar{d}}{}^{\dot{1}2p} \big] \, \delta_{\dot{1}1} \, \tilde{\mu}_{\dot{1}1} \, \tilde
                                                                                                                                                                \frac{1}{24} \frac{1}{m_s^2} s_{\gamma}^2 \overline{y_d}^{pr} \overline{y_d}^{i2i3} y_d^{pi4} y_d^{i1r} LF_{2,1,-1} [\widetilde{\mu}, m_{\widetilde{d}}^{r}] -
                                                                                                                                                                    \frac{1}{12} \ \frac{1}{m_{\text{g}}^2} \ \mathsf{S}_{\gamma}^{\ 2} \ \overline{\mathsf{y}_{\text{d}}}^{\text{pr}} \ \overline{\mathsf{y}_{\text{d}}}^{\text{i2i3}} \ \mathsf{y}_{\text{d}}^{\text{pi4}} \ \mathsf{y}_{\text{d}}^{\text{i1r}} \ \mathsf{LF}_{2,1,-1} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\tilde{\textbf{q}}}^{\ p} \big] \ + \\ \frac{1}{108} \ \mathsf{g}_{1}^{\ 2} \ \overline{\mathsf{y}_{\text{d}}}^{\text{pi3}} \ \mathsf{y}_{\text{d}}^{\text{pi4}} \ \mathsf{LF}_{2,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\tilde{\textbf{q}}}^{\ p} \big] \ \delta_{\text{i1i2}} \ + \\ \frac{1}{108} \ \mathsf{g}_{1}^{\ 2} \ \overline{\mathsf{y}_{\text{d}}}^{\text{pi3}} \ \mathsf{y}_{\text{d}}^{\text{pi4}} \ \mathsf{LF}_{2,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\tilde{\textbf{q}}}^{\ p} \big] \ \delta_{\text{i1i2}} \ + \\ \frac{1}{108} \ \mathsf{g}_{1}^{\ 2} \ \overline{\mathsf{y}_{\text{d}}}^{\text{pi3}} \ \mathsf{y}_{\text{d}}^{\text{pi4}} \ \mathsf{LF}_{2,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\tilde{\textbf{q}}}^{\ p} \big] \ \delta_{\text{i1i2}} \ + \\ \frac{1}{108} \ \mathsf{g}_{1}^{\ 2} \ \overline{\mathsf{y}_{\text{d}}}^{\text{pi3}} \ \mathsf{y}_{\text{d}}^{\text{pi4}} \ \mathsf{LF}_{2,1,0} \big[ \widetilde{\mu} \,,\, \mathsf{m}_{\tilde{\textbf{q}}}^{\ p} \big] \ \delta_{\text{i1i2}} \ + \\ \frac{1}{108} \ \mathsf{g}_{1}^{\ 2} \ \mathsf{g}_{1}^{\ 2}
                                                                                                                                                                \frac{7}{108} \; {g_{1}}^{2} \; \overline{y_{d}}^{\text{pi3}} \; {y_{d}}^{\text{pi4}} \; \mathsf{LF_{3,1,-1}} \big[ \widetilde{\mu} \; , \; \mathsf{m_{\tilde{q}}}^{\text{p}} \big] \; \delta_{\text{ili2}} - \frac{1}{54} \; {g_{1}}^{2} \; \overline{y_{d}}^{\text{pi3}} \; {y_{d}}^{\text{pi4}} \; \mathsf{LF_{4,1,-2}} \big[ \widetilde{\mu} \; , \; \mathsf{m_{\tilde{q}}}^{\text{p}} \big] \; \delta_{\text{ili2}} - \frac{1}{54} \; {g_{1}}^{2} \; \overline{y_{d}}^{\text{pi3}} \; {y_{d}}^{\text{pi4}} \; \mathsf{LF_{4,1,-2}} \big[ \widetilde{\mu} \; , \; \mathsf{m_{\tilde{q}}}^{\text{p}} \big] \; \delta_{\text{ili2}} - \frac{1}{54} \; {g_{1}}^{2} \; \overline{y_{d}}^{\text{pi3}} \; {y_{1}}^{\text{pi4}} \; \mathsf{LF_{4,1,-2}} \big[ \widetilde{\mu} \; , \; \mathsf{m_{\tilde{q}}}^{\text{p}} \big] \; \delta_{\text{ili2}} - \frac{1}{54} \; {g_{1}}^{2} \; \overline{y_{2}}^{\text{pi3}} \; {y_{2}}^{\text{pi4}} \; \mathsf{LF_{4,1,-2}} \big[ \widetilde{\mu} \; , \; \mathsf{m_{\tilde{q}}}^{\text{p}} \big] \; \delta_{\text{ili2}} - \frac{1}{54} \; {g_{1}}^{2} \; \overline{y_{2}}^{\text{pi3}} \; {y_{2}}^{\text{pi4}} \; \mathsf{LF_{4,1,-2}} \big[ \widetilde{\mu} \; , \; \mathsf{m_{\tilde{q}}}^{\text{p}} \big] \; \delta_{\text{ili2}} - \frac{1}{54} \; {g_{1}}^{2} \; \overline{y_{2}}^{\text{pi3}} \; {y_{2}}^{\text{pi4}} \; \mathsf{LF_{4,1,-2}} \big[ \widetilde{\mu} \; , \; \mathsf{m_{\tilde{q}}}^{\text{p}} \big] \; \delta_{\text{ili2}} - \frac{1}{54} \; {g_{1}}^{2} \; \overline{y_{2}}^{\text{pi4}} \; {y_{2}}^{\text{pi4}} \; {y_{2}}^{\text{pi4}} \; {y_{3}}^{\text{pi4}} 
                                                                                                                                                                \frac{1}{12} \ \frac{1}{m_{\tilde{g}}^2} \ S_{\gamma}^2 \ \overline{y_d}^{ri3} \ \overline{y_d}^{i2p} \ y_d^{rp} \ y_d^{i1i4} \ \mathsf{LF}_{2,1,-1} \big[ \widetilde{\mu} \ , \ \mathsf{m}_{\tilde{q}}{}^r \big] - \frac{1}{27} \ g_{1}^2 \ \overline{y_u}^{i2p} \ y_u^{i1p} \ \mathsf{LF}_{2,1,0} \big[ \widetilde{\mu} \ , \ \mathsf{m}_{\tilde{u}}{}^p \big] \ \delta_{i3i4} - \frac{1}{27} \ s_{1}^2 \ \overline{y_u}^{i2p} \ y_u^{i1p} \ \mathsf{LF}_{2,1,0} \big[ \widetilde{\mu} \ , \ \mathsf{m}_{\tilde{u}}{}^p \big] \ \delta_{i3i4} - \frac{1}{27} \ s_{1}^2 \ s_{1}^2 \ s_{2}^2 \ \overline{y_u}^{i2p} \ y_u^{i1p} \ \mathsf{LF}_{2,1,0} \big[ \widetilde{\mu} \ , \ \mathsf{m}_{\tilde{u}}{}^p \big] \ \delta_{i3i4} - \frac{1}{27} \ s_{1}^2 \ s_{1}^2 \ s_{2}^2 \ \overline{y_u}^{i2p} \ s_{2}^2 \ 
                                                                                                                                                                \frac{1}{108} \; 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}{108} \; 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}{108} \; 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}{108} \; 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}{108} \; 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}{108} \; 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}{108} \; 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}{108} \; 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}{108} \; 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}{108} \; g_{1}{}^{2} \; \overline{y_{u}}{}^{i2p} \; y_{u}{}^{i2p} \; y_{
                                                                                                                                                                \frac{1}{24} \; \frac{1}{m_{e}^{2}} \; {s_{\gamma}}^{2} \; \left( \overline{y_{d}}^{\text{pi3}} \; y_{d}^{\text{ili4}} \; \overline{y_{u}}^{\text{i2r}} \; y_{u}^{\text{pr}} + \overline{y_{d}}^{\text{i2i3}} \; y_{d}^{\text{pi4}} \; \overline{y_{u}}^{\text{pr}} \; y_{u}^{\text{i1r}} \right) \; \mathsf{LF}_{2,1,-1} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; \frac{1}{2} \left[ \widetilde{\mu} \; , \; m_{\widetilde{u}}^{\, r} \right] \; + \; 
                                                                                                                                                                    \frac{1}{54} \; \mathsf{m_1} \; \mathsf{s_{\gamma}} \; \mathsf{g_1}^2 \; \frac{1}{\mathsf{m_o}^2} \; \mathsf{y_d}^{\text{ili4}} \; \left( \mathsf{s_{\gamma}} \; \overline{\mathsf{a_d}}^{\text{i2i3}} + \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \overline{\mathsf{y_d}}^{\text{i2i3}} \right) \; \mathsf{LF_{1,1,1,0}} \left[ \mathsf{m_1} \; , \; \mathsf{m_{\bar{d}}}^{\text{i3}} \; , \; \mathsf{m_{\bar{q}}}^{\text{i2}} \right] \; + \; \widetilde{\mathsf{m_1}}^{\text{i3}} \; + \; \widetilde{\mathsf{m_2}}^{\text{i2i3}} \; + \; \widetilde{\mathsf{m_3}}^{\text{i2i3}} \; + \; \widetilde{\mathsf{m_2}}^{\text{i2i3}} \right] \; + \; \widetilde{\mathsf{m_3}}^{\text{i2i3}} \; + \; \widetilde{\mathsf{m_2}}^{\text{i2i3}} \; + \; \widetilde{\mathsf{m_3}}^{\text{i2i3}} \; + \; \widetilde{\mathsf{m
                                                                                                                                                                \frac{1}{216} \; m_1 \; c_{\gamma} \; g_1^2 \; y_d^{\; \text{ili4}} \; \left( - \, c_{\gamma} \; \overline{a_d}^{\; \text{i2i3}} + s_{\gamma} \; \widetilde{\mu} \; \overline{y_d}^{\; \text{i2i3}} \right) \; \mathsf{LF}_{2,2,1,-1} \big[ \, m_1 \, , \; m_{\bar{d}}^{\; \text{i3}} \, , \; m_{\bar{q}}^{\; \text{i2}} \big] \; - \; \left( - \, c_{\gamma} \; \overline{a_d}^{\; \text{i2i3}} + s_{\gamma} \; \widetilde{\mu} \; \overline{y_d}^{\; \text{i2i3}} \right) \; \mathsf{LF}_{2,2,1,-1} \big[ \, m_1 \, , \; m_{\bar{d}}^{\; \text{i3}} \, , \; m_{\bar{q}}^{\; \text{i2}} \big] \; - \; \left( - \, c_{\gamma} \; \overline{a_d}^{\; \text{i2i3}} + s_{\gamma} \; \widetilde{\mu} \; \overline{y_d}^{\; \text{i2i3}} \right) \; \mathsf{LF}_{2,2,1,-1} \big[ \, m_1 \, , \; m_{\bar{d}}^{\; \text{i3i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, \big] \; - \; \left( - \, c_{\gamma} \; \overline{a_d}^{\; \text{i2i3}} + s_{\gamma} \; \widetilde{\mu} \; \overline{y_d}^{\; \text{i2i3}} \right) \; \mathsf{LF}_{2,2,1,-1} \big[ \, m_1 \, , \; m_{\bar{d}}^{\; \text{i3i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, \big] \; - \; \left( - \, c_{\gamma} \; \overline{a_d}^{\; \text{i2i3}} + s_{\gamma} \; \widetilde{\mu} \; \overline{y_d}^{\; \text{i2i3}} \right) \; \mathsf{LF}_{2,2,1,-1} \big[ \, m_1 \, , \; m_{\bar{d}}^{\; \text{i2i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, \big] \; - \; \left( - \, c_{\gamma} \; \overline{a_d}^{\; \text{i2i3}} + s_{\gamma} \; \widetilde{\mu} \; \overline{y_d}^{\; \text{i2i3}} \, \big) \; \mathsf{LF}_{2,2,1,-1} \big[ \, m_1 \, , \; m_{\bar{d}}^{\; \text{i2i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, \big] \; - \; \left( - \, c_{\gamma} \; \overline{a_d}^{\; \text{i2i3}} + s_{\gamma} \; \widetilde{\mu} \; \overline{y_d}^{\; \text{i2i3}} \, \big) \; \mathsf{LF}_{2,2,2,1,-1} \big[ \, m_1 \, , \; m_{\bar{d}}^{\; \text{i2i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, \big] \; + \; \left( - \, c_{\gamma} \; \overline{a_d}^{\; \text{i2i3}} + s_{\gamma} \; \overline{y_d}^{\; \text{i2i3}} \, \big) \; \mathsf{LF}_{2,2,2,1,-1} \big[ \, m_1 \, , \; m_{\bar{d}}^{\; \text{i2i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, \big] \; + \; \left( - \, c_{\gamma} \; \overline{a_d}^{\; \text{i2i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, \big) \; \mathsf{LF}_{2,2,2,1,-1} \big[ \, m_1 \, , \; m_{\bar{d}}^{\; \text{i2i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, \big] \; + \; \left( - \, c_{\gamma} \; \overline{a_d}^{\; \text{i2i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, \big) \; \mathsf{LF}_{2,2,2,1,-1} \big[ \, m_1 \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, \big] \; + \; \left( - \, c_{\gamma} \; \overline{a_d}^{\; \text{i2i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, \big) \; \mathsf{LF}_{2,2,2,1} \big[ \, m_1 \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, \big] \; + \; \left( - \, c_{\gamma} \; \overline{a_d}^{\; \text{i2i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, , \; m_{\bar{q}}^{\; \text{i2i3}} \, \big) \; \mathsf{LF}_{2,2,2,2} \big[ \, m_1 \, , \; m_1 \, , \; m_2 \, , \; m_2 \, \big] \; + \; \left( - \, c_{\gamma} \; \overline{a_d}^{\; \text{i2i3}
                                                                                                                                                                    \frac{1}{18} g_1^2 \frac{1}{m_0^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{1,1,1,-1}[m_1, m_{\bar{d}}^{-i3}, \tilde{\mu}] +
                                                                                                                                                                \frac{1}{54} \; \mathsf{m_1} \; \mathsf{s_{Y}} \; \mathsf{g_1}^2 \; \frac{1}{\mathsf{m_0}^2} \; \overline{\mathsf{y_d}}^{\mathsf{i2i3}} \; \left( \mathsf{s_{Y}} \; \mathsf{a_d}^{\mathsf{i1i4}} + \widetilde{\mu} \; \mathsf{c_{Y}} \; \mathsf{y_d}^{\mathsf{i1i4}} \right) \; \mathsf{LF_{1,1,1,0}} \left[ \; \mathsf{m_1} \; , \; \mathsf{m_{\bar{d}}}^{\mathsf{i4}} \; , \; \mathsf{m_{\bar{q}}}^{\mathsf{i1}} \right] \; + \\
                                                                                                                                                                \frac{1}{216}\;\mathsf{m_1}\;\mathsf{c_{\scriptscriptstyle Y}}\;\mathsf{g_{\scriptscriptstyle 1}}^2\;\overline{\mathsf{y_d}}^{\mathsf{i2i3}}\;\left(-\,\mathsf{c_{\scriptscriptstyle Y}}\;\mathsf{a_d}^{\,\mathsf{i1i4}}\,+\,\mathsf{s_{\scriptscriptstyle Y}}\;\widetilde{\boldsymbol{\mu}}\;\mathsf{y_d}^{\,\mathsf{i1i4}}\right)\;\mathsf{LF_{2,2,1,-1}}\!\left[\,\mathsf{m_1}\,,\,\mathsf{m_{\bar{d}}}^{\,\mathsf{i4}}\,,\,\mathsf{m_{\bar{q}}}^{\,\mathsf{i1}}\,\right]\,-\,\mathsf{m_{\bar{d}}}^{\,\mathsf{i1i4}}\;
                                                                                                                                                                \frac{1}{324} \ g_1{}^4 \ \mathsf{LF}_{2,1,1,-1} \big[ \ \mathsf{m}_1 \ , \ \mathsf{m}_{\bar{\mathsf{q}}}^{-\dot{\mathsf{1}}\dot{\mathsf{2}}} \ , \ \mathsf{m}_{\bar{\mathsf{q}}}^{-\dot{\mathsf{1}}\dot{\mathsf{2}}} \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{1}{162} \ g_1{}^4 \ \mathsf{m}_1{}^2 \ \mathsf{LF}_{2,1,1,0} \big[ \ \mathsf{m}_1 \ , \ \mathsf{m}_{\bar{\mathsf{q}}}^{-\dot{\mathsf{1}}\dot{\mathsf{4}}} \ , \ \mathsf{m}_{\bar{\mathsf{q}}}^{-\dot{\mathsf{1}}\dot{\mathsf{2}}} \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{1}{162} \ g_1{}^4 \ \mathsf{m}_1{}^2 \ \mathsf{LF}_{2,1,1,0} \big[ \ \mathsf{m}_1 \ , \ \mathsf{m}_{\bar{\mathsf{q}}}^{-\dot{\mathsf{1}}\dot{\mathsf{4}}} \ , \ \mathsf{m}_{\bar{\mathsf{q}}}^{-\dot{\mathsf{1}}\dot{\mathsf{2}}} \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{1}{162} \ \mathsf{m}_1{}^2 \ \mathsf{m}_1{}^2 \ \mathsf{m}_1{}^2 \ \mathsf{m}_2{}^2 \ \mathsf{m}_
                                                                                                                                                                \frac{1}{18} g_1^2 \frac{1}{m_n^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{1,1,1,-1}[m_1, m_{\tilde{d}}^{i4}, \tilde{\mu}] +
                                                                                                                                                                \frac{1}{18}~\text{m}_1~\text{s}_{\curlyvee}~\widetilde{\mu}~\text{c}_{\curlyvee}~\text{g}_{\text{1}}^2~\frac{1}{\text{m}_{\text{o}}^2}~\overline{\text{y}_{\text{d}}}^{\text{i2i3}}~\text{y}_{\text{d}}^{\text{i1i4}}~\text{LF}_{\text{1,1,1,0}}\big[\,\text{m}_{\text{1}}\,,~\text{m}_{\tilde{\text{d}}}^{\text{i4}}\,,~\widetilde{\mu}\,\big]~+
                                                                                                                                                                \frac{1}{216}\;\mathsf{m_1}\;\mathsf{c_{_{Y}}}\;\mathsf{g_{_{1}}}^2\;\overline{\mathsf{y_d}}^{\mathsf{12}\bar{\mathsf{13}}}\;\left(-\,\mathsf{c_{_{Y}}}\;\mathsf{a_d}^{\mathsf{11}\bar{\mathsf{14}}}+\,\mathsf{s_{_{Y}}}\;\widetilde{\mu}\;\mathsf{y_d}^{\mathsf{11}\bar{\mathsf{14}}}\right)\;\mathsf{LF_{2,2,1,-1}}\!\left[\,\mathsf{m_1}\,,\,\mathsf{m_{\tilde{\mathsf{q}}}}^{\mathsf{-}\bar{\mathsf{11}}}\,,\,\mathsf{m_{\tilde{\mathsf{d}}}}^{\mathsf{-}\bar{\mathsf{14}}}\right]\;-\,\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{11}}}}^{\mathsf{-}\bar{\mathsf{11}}}\;\mathsf{n_{_{\tilde{\mathsf{q}}}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}}^{\mathsf{-}\bar{\mathsf{11}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{11}}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf{q}}}^{\mathsf{-}\bar{\mathsf
                                                                                                                                                                \frac{1}{36} g_1^2 \frac{1}{m_0^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{1,1,1,-1}[m_1, m_{\tilde{q}}^{i1}, \tilde{\mu}] +
                                                                                                                                                                \frac{1}{216}\;\mathsf{m_1}\;\mathsf{c_{_Y}}\;\mathsf{g_{_1}}^2\;\mathsf{y_d}^{\text{ili4}}\;\left(-\,\mathsf{c_{_Y}}\;\overline{\mathsf{a_d}}^{\text{i2i3}}\,+\,\mathsf{s_{_Y}}\;\widetilde{\mu}\;\overline{\mathsf{y_d}}^{\text{i2i3}}\right)\;\mathsf{LF_{2,2,1,-1}}\!\left[\,\mathsf{m_1}\,,\,\mathsf{m_{\tilde{q}}}^{\text{-i2}}\,,\,\mathsf{m_{\tilde{d}}}^{\text{-i3}}\,\right]\;-\,\mathsf{m_{\tilde{q}}}^{\text{-i2i3}}\;
                                                                                                                                                                \frac{1}{36} g_1^2 \frac{1}{m_o^2} s_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{1,1,1,-1}[m_1, m_{\tilde{q}}^{i2}, \tilde{\mu}] +
                                                                                                                                                                \frac{1}{36}~\text{m}_1~\text{s}_{\gamma}~\tilde{\mu}~\text{c}_{\gamma}~\text{g}_{1}^{2}~\frac{1}{\text{m}_{\text{g}}^{2}}~\overline{\text{y}_{\text{d}}}^{\text{i2i3}}~\text{y}_{\text{d}}^{\text{i1i4}}~\text{LF}_{\text{1,1,1,0}}\big[\,\text{m}_{\text{1}}\,,~\text{m}_{\tilde{\text{q}}}^{\text{i2}}\,,~\tilde{\mu}\,\big]~-
                                                                                                                                                                \frac{1}{36} g_1^2 c_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,2,1,-2}[m_1, \tilde{\mu}, m_{\tilde{d}}^{i3}] -
                                                                                                                                                                \frac{1}{36} \, m_1 \, s_\gamma \, \widetilde{\mu} \, c_\gamma \, g_1^2 \, \overline{y_d}^{i2i3} \, y_d^{i1i4} \, LF_{2,2,1,-1} [m_1, \, \widetilde{\mu}, \, m_{\tilde{d}}^{i3}] -
                                                                                                                                                                \frac{1}{36} g_1^2 c_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,2,1,-2}[m_1, \tilde{\mu}, m_{\tilde{d}}^{i4}] -
                                                                                                                                                                \frac{1}{36} m_1 s_\gamma \tilde{\mu} c_\gamma g_1^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,2,1,-1}[m_1, \tilde{\mu}, m_{\tilde{d}}^{i4}] -
                                                                                                                                                                \frac{1}{72} g_1^2 c_{\gamma}^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,2,1,-2}[m_1, \tilde{\mu}, m_{\tilde{q}}^{i1}] -
                                                                                                                                                                                \frac{1}{77} m_1 s_{\gamma} \tilde{\mu} c_{\gamma} g_1^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,2,1,-1}[m_1, \tilde{\mu}, m_{\tilde{q}}^{i1}] -
                                                                                                                                                                \frac{1}{72} \; g_1^{\; 2} \; c_{\gamma}^{\; 2} \; \overline{y_d}^{i\, 2\, i\, 3} \; y_d^{\; i\, 1\, i\, 4} \; LF_{2\,,\, 2\,,\, 1\,,\, -2} \left[\, m_1\,,\; \widetilde{\mu}\,,\; m_{\tilde{q}}^{\; i\, 2}\,\right] \; -
                                                                                                                                                                                \frac{1}{77} m_1 s_{\gamma} \tilde{\mu} c_{\gamma} g_1^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{2,2,1,-1}[m_1, \tilde{\mu}, m_{\tilde{q}}^{i2}] -
                                                                                                                                                            \frac{1}{4}~g_2^2~\frac{1}{m_o^2}~s_\gamma^2~\overline{y_d}^{i2i3}~y_d^{i1i4}~\mathsf{LF_{1,1,1,-1}}\big[\,m_2\,,~m_{\bar{q}}^{~i1}\,,~\widetilde{\mu}\,\big]~+
                                                                                                                                                            \frac{1}{4}~\text{m}_2~\text{s}_{\scriptscriptstyle \Upsilon}~\tilde{\mu}~\text{c}_{\scriptscriptstyle \Upsilon}~\text{g}_2^{\,2}~\frac{1}{\text{m}_{\scriptscriptstyle 0}^{\,2}}~\overline{\text{y}_d}^{\text{i2i3}}~\text{y}_d^{\,\text{i1i4}}~\text{LF}_{1,1,1,0}\left[\text{m}_2\,,~\text{m}_{\tilde{q}}^{\,\,\text{i1}},~\tilde{\mu}\right]~-
                                                                                                                                                            \frac{1}{4} g_{2}^{2} \frac{1}{m_{D}^{2}} s_{\gamma}^{2} \overline{y_{d}}^{i2i3} y_{d}^{i1i4} LF_{1,1,1,-1}[m_{2}, m_{\tilde{q}}^{i2}, \tilde{\mu}] +
                                                                                                                                                        \frac{1}{4}\; m_2\; s_\gamma\; \tilde{\mu}\; c_\gamma\; g_2{}^2\; \frac{1}{m_\text{D}{}^2}\; \overline{y_d}{}^{i2i3}\; y_d{}^{i1i4}\; \mathsf{LF}_{1,1,1,0}\left[m_2\;,\; m_{\tilde{q}}{}^{i2}\;,\; \tilde{\mu}\right]\; -
                                                                                                                                                            \frac{1}{8}~g_2^2~c_{\gamma}^2~\overline{y_d}^{i2i3}~y_d^{i1i4}~LF_{2,2,1,-2}\big[m_2\,,~\widetilde{\mu}\,,~m_{\tilde{q}}^{i1}\big] –
                                                                                                                                                                                                       \textbf{m}_2 \; \textbf{s}_{\gamma} \; \widetilde{\mu} \; \textbf{c}_{\gamma} \; \textbf{g}_2^{\; 2} \; \overline{\textbf{y}_d}^{\textbf{i}2\textbf{i}3} \; \textbf{y}_d^{\; \textbf{i}1\textbf{i}4} \; \textbf{LF}_{\textbf{2},\textbf{2},\textbf{1},\textbf{-1}} \big[ \textbf{m}_{\textbf{2}} \, , \; \widetilde{\mu} \, , \; \textbf{m}_{\tilde{\textbf{q}}}^{\; \textbf{i}1} \big] \; - \;
                                                                                                                                                                                               {\rm g_2}^2 \; {\rm c_{_{\rm Y}}}^2 \; \overline{{\rm y_d}}^{\rm i2i3} \; {\rm y_d}^{\rm i1i4} \; {\rm LF_{2,2,1,-2}} \big[ \, {\rm m_2} \, , \, \tilde{\mu} \, , \, {\rm m_{\tilde{q}}}^{\rm i2} \big] \; - \;
                                                                                                                                                                                               \mathbf{m_2} \; \mathbf{s_{\gamma}} \; \widetilde{\boldsymbol{\mu}} \; \mathbf{c_{\gamma}} \; \mathbf{g_2}^2 \; \overline{\mathbf{y_d}}^{\text{i2i3}} \; \mathbf{y_d}^{\text{i1i4}} \; \mathbf{LF_{2,2,1,-1}} \big[ \mathbf{m_2} \text{, } \widetilde{\boldsymbol{\mu}} \text{, } \mathbf{m_{\tilde{q}}}^{\text{i2}} \big] \; - \; \\
                                                                                                                                                                \frac{4}{9} \; m_3 \; s_{\gamma} \; g_{3}{}^{2} \; \frac{1}{m_{\varpi}{}^{2}} \; y_{d}{}^{\text{ili4}} \; \left( s_{\gamma} \; \overline{a_{d}}{}^{\text{i2i3}} + \widetilde{\mu} \; c_{\gamma} \; \overline{y_{d}}{}^{\text{i2i3}} \right) \; \text{LF}_{1,1,1,0} \left[ m_{3} \; , \; m_{\tilde{d}}{}^{\text{i3}} \; , \; m_{\tilde{q}} \; \right] \; .
                                                                                                                                                                                               \textbf{m}_{3} \; \textbf{c}_{\gamma} \; \textbf{g}_{3}^{\; 2} \; \textbf{y}_{d}^{\; \textbf{i} \, \textbf{i} \, \textbf{i} \, \textbf{4}} \; \left( \textbf{c}_{\gamma} \; \overline{\textbf{a}_{d}}^{\; \textbf{i} \, \textbf{2} \, \textbf{i} \, \textbf{3}} - \textbf{s}_{\gamma} \; \widetilde{\boldsymbol{\mu}} \; \overline{\textbf{y}_{d}}^{\; \textbf{i} \, \textbf{2} \, \textbf{i} \, \textbf{3}} \right) \; \textbf{LF}_{\textbf{2},\textbf{2},\textbf{1},\textbf{-1}} \left[ \textbf{m}_{\textbf{3}} \; , \; \textbf{m}_{\tilde{\textbf{d}}}^{\; \boldsymbol{i} \, \textbf{3}} \; , \; \textbf{m}_{\tilde{\textbf{q}}}^{\; \boldsymbol{i} \, \textbf{2}} \right] \; - \; \boldsymbol{a}_{\tilde{\textbf{q}}} \; \boldsymbol{a}_{\tilde{\textbf{q
                                                                                                                                                            \frac{4}{9} \ m_{3} \ s_{\gamma} \ g_{3}^{2} \ \frac{1}{m_{o}^{2}} \ \overline{y_{d}^{1213}} \ \left(s_{\gamma} \ a_{d}^{1114} + \widetilde{\mu} \ c_{\gamma} \ y_{d}^{1114}\right) \ LF_{1,1,1,0} \left[m_{3} \ , \ m_{\tilde{d}}^{-14} \ , \ m_{\tilde{q}}^{-11}\right] + \widetilde{g} \ c_{\gamma} \ y_{d}^{1114} + \widetilde{g} \ c_{\gamma} \ y
                                                                                                                                                                \frac{1}{9} \; m_{3} \; c_{\gamma} \; g_{3}^{\; 2} \; \overline{y_{d}}^{i\, 2\, i\, 3} \; \left( \, c_{\gamma} \; a_{d}^{\; i\, 1\, i\, 4} \, - \, s_{\gamma} \; \widetilde{\mu} \; y_{d}^{\; i\, 1\, i\, 4} \right) \; \mathsf{LF}_{2\,,\, 2\,,\, 1\,,\, -1} \left[ \, m_{3} \, , \; m_{\bar{d}}^{\; i\, 4} \, , \; m_{\bar{q}}^{\; i\, 1} \, \right] \; - \, c_{\gamma} \; \widetilde{\mu} \; a_{d}^{\; i\, 1\, i\, 4} \; .
                                                                                                                                                                \frac{2}{9} \, g_{3}{}^{4} \, \mathsf{LF}_{2,1,1,-1} \big[ \, \mathsf{m}_{3} \, , \, \, \mathsf{m}_{\bar{\mathsf{d}}}{}^{\dot{\mathsf{i}} \, 4} \, , \, \, \, \mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{\mathsf{i}} \, 2} \, \big] \, \, \delta_{\dot{\mathsf{i}} \, \dot{\mathsf{i}} \, - \, \frac{4}{9} \, g_{3}{}^{4} \, \, \mathsf{m}_{3}{}^{2} \, \, \mathsf{LF}_{2,1,1,0} \big[ \, \mathsf{m}_{3} \, , \, \, \mathsf{m}_{\bar{\mathsf{d}}}{}^{\dot{\mathsf{i}} \, 4} \, , \, \, \mathsf{m}_{\bar{\mathsf{q}}}{}^{\dot{\mathsf{i}} \, 2} \, \big] \, \, \delta_{\dot{\mathsf{i}} \, \dot{\mathsf{i}} 
                                                                                                                                                                \frac{1}{9} \; m_{3} \; c_{\gamma} \; g_{3}^{\; 2} \; \overline{y_{d}}^{i\, 2\, i\, 3} \; \left( \, c_{\gamma} \; a_{d}^{\; i\, 1\, i\, 4} \, - \, s_{\gamma} \; \widetilde{\mu} \; y_{d}^{\; i\, 1\, i\, 4} \right) \; \mathsf{LF}_{2,\, 2,\, 1,\, -1} \left[ \, m_{3} \, , \; m_{\tilde{q}}^{\; i\, 1} \, , \; m_{\tilde{d}}^{\; i\, 4} \, \right] \; + \; c_{1} \; c_{2} \; c_{2} \; c_{3} \; c_{3} \; c_{3} \; c_{4} \; c_{5} 
                                                                                                                                                                \mathsf{m_1} \; \mathsf{c_{Y}} \; \mathsf{g_1}^2 \; \mathsf{y_d}^{\text{ili4}} \; \left(\mathsf{c_{Y}} \; \overline{\mathsf{a_d}}^{\text{i2i3}} - \mathsf{s_{Y}} \; \widetilde{\mu} \; \overline{\mathsf{y_d}}^{\text{i2i3}}\right) \; \mathsf{LF_{2,1,1,0}} \left[ \, \mathsf{m_{\tilde{d}}}^{\text{i3}}, \; \mathsf{m_1}, \; \mathsf{m_{\tilde{q}}}^{\text{i2}} \, \right] \; + \; \mathsf{m_{\tilde{d}}}^{\text{i2i3}} + \; \mathsf{m_{\tilde{d}}}^
                                                                                                                                                                \frac{1}{108}\;\mathsf{m_1}\;\mathsf{c_{\scriptscriptstyle Y}}\;\mathsf{g_{\scriptscriptstyle 1}}^2\;\mathsf{y_d}^{\text{ili4}}\;\left(-\,\mathsf{c_{\scriptscriptstyle Y}}\;\overline{\mathsf{a_d}}^{\text{i2i3}}\,+\,\mathsf{s_{\scriptscriptstyle Y}}\;\widetilde{\mu}\;\overline{\mathsf{y_d}}^{\text{i2i3}}\right)\;\mathsf{LF_{3,1,1,-1}}\!\left[\,\mathsf{m_{\bar{d}}}^{\text{i3}}\,,\;\mathsf{m_1},\;\mathsf{m_{\bar{q}}}^{\text{i2}}\,\right]\,+\,\mathsf{m_{\scriptstyle 1}}^{\text{i2}}\;\mathsf{m_{\scriptstyle 2}}\;\mathsf{m_{\scriptstyle 3}}^{\text{i2}}\;\mathsf{m_{\scriptstyle 3}}\;\mathsf{m_{\scriptstyle 4}}\;\mathsf{m_{\scriptstyle 5}}^{\text{i2}}\;\mathsf{m_{\scriptstyle 5}}\;\mathsf{m_{\scriptstyle 5}}^{\text{i2}}\;\mathsf{m_{\scriptstyle 5}}\;\mathsf{m_{\scriptstyle 5}}^{\text{i2}}\;\mathsf{m_{\scriptstyle 5}}\;\mathsf{m_{\scriptstyle 5}}^{\text{i2}}\;\mathsf{m_{\scriptstyle 5}}\;\mathsf{m_{\scriptstyle 5}}\;\mathsf{m_{\scriptstyle
                                                                                                                                                                \frac{2}{9} \; m_{3} \; c_{\gamma} \; g_{3}^{\; 2} \; y_{d}^{\; \text{ili4}} \; \left( - \, c_{\gamma} \; \overline{a_{d}}^{\; \text{i2i3}} + \, s_{\gamma} \, \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \right) \; \mathsf{LF}_{2,1,1,0} \left[ \, \mathsf{m_{\tilde{d}}}^{\; \text{i3}} \, , \; \mathsf{m_{3}} \, , \; \mathsf{m_{\tilde{q}}}^{\; \text{i2}} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \right) \; \mathsf{LF}_{2,1,1,0} \left[ \, \mathsf{m_{\tilde{d}}}^{\; \text{i3}} \, , \; \mathsf{m_{3}} \, , \; \mathsf{m_{\tilde{q}}}^{\; \text{i2}} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \right] \; \mathsf{LF}_{2,1,1,0} \left[ \, \mathsf{m_{\tilde{d}}}^{\; \text{i3}} \, , \; \mathsf{m_{3}} \, , \; \mathsf{m_{\tilde{q}}}^{\; \text{i2i3}} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \right] \; \mathsf{LF}_{2,1,1,0} \left[ \, \mathsf{m_{\tilde{d}}}^{\; \text{i3}} \, , \; \mathsf{m_{3}} \, , \; \mathsf{m_{\tilde{q}}}^{\; \text{i2i3}} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \right] \; \mathsf{LF}_{2,1,1,0} \left[ \, \mathsf{m_{\tilde{d}}}^{\; \text{i3}} \, , \; \mathsf{m_{3}} \, , \; \mathsf{m_{\tilde{q}}}^{\; \text{i2i3}} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; \text{i2i3}} \; + \; c_{\gamma} \; \overline{y_{d}}^{
                                                                                                                                                                \frac{2}{9} \; \mathsf{m_3} \; \mathsf{c_{Y}} \; \mathsf{g_3}^2 \; \mathsf{y_d}^{\text{ili4}} \; \left( \mathsf{c_{Y}} \; \overline{\mathsf{a_d}}^{\text{i2i3}} - \mathsf{s_{Y}} \; \widetilde{\mu} \; \overline{\mathsf{y_d}}^{\text{i2i3}} \right) \; \mathsf{LF_{3,1,1,-1}} \left[ \mathsf{m_{\tilde{d}}}^{\text{i3}}, \; \mathsf{m_3}, \; \mathsf{m_{\tilde{q}}}^{\text{i2}} \right] \; + \\
                                                                                                                                                                \frac{1}{108} \; \mathsf{m_1} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{g_{\scriptscriptstyle 1}}^2 \; \overline{\mathsf{y_d}}^{\mathsf{i2i3}} \; \left( \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{a_d}^{\mathsf{i1i4}} - \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \; \mathsf{y_d}^{\mathsf{i1i4}} \right) \; \mathsf{LF_{2,1,1,0}} \left[ \mathsf{m_{\scriptscriptstyle \bar{d}}}^{\mathsf{i4}} \text{, } \mathsf{m_1} \text{, } \mathsf{m_{\bar{q}}}^{\mathsf{i1}} \right] \; + \; \mathsf{m_{\scriptscriptstyle \bar{q}}}^{\mathsf{i1}} \; \mathsf{m_{\scriptscriptstyle \bar{q}}} \; \mathsf{m_{\scriptscriptstyle \bar{q}}}^{\mathsf{i1}} \right] \; + \; \mathsf{m_{\scriptscriptstyle \bar{q}}}^{\mathsf{i1}} \; \mathsf{m_{\scriptscriptstyle 1}} \; \mathsf{m_{\scriptscriptstyle 2}} \; \mathsf{m_{\scriptscriptstyle 1}} \; \mathsf{m_{\scriptscriptstyle 1}} \; \mathsf{m_{\scriptscriptstyle 2}} \; \mathsf{m_{\scriptscriptstyle 1}} \; \mathsf{m_{\scriptscriptstyle 1}} \; \mathsf{m_{\scriptscriptstyle 2}} \; \mathsf{m_{\scriptscriptstyle 2}} \; \mathsf{m_{\scriptscriptstyle 2}} \; \mathsf{m_{\scriptscriptstyle 1}} \; \mathsf{m_{\scriptscriptstyle 2}} \; \mathsf{m_{\scriptscriptstyle 2}
                                                                                                                                                                \frac{1}{108}\; m_1\; c_\gamma\; g_1^{\;2}\; \overline{y_d}^{i2i3}\; \left(-\, c_\gamma\; a_d^{\,i1i4} + s_\gamma\; \widetilde{\mu}\; y_d^{\,i1i4}\right)\; \mathsf{LF}_{3,1,1,-1}\!\left[\, m_{\bar{d}}^{\,\,i4}\, ,\; m_1\, ,\; m_{\bar{q}}^{\,\,i} + s_\gamma\; \widetilde{\mu}^{\,\,i}\, y_d^{\,\,i1i4}\right] \; \mathsf{LF}_{3,1,1,-1}\left[\, m_{\bar{d}}^{\,\,i4}\, ,\; m_1\, ,\; m_{\bar{q}}^{\,\,i} + s_\gamma\; \widetilde{\mu}^{\,\,i}\, y_d^{\,\,i1i4}\right] \; \mathsf{LF}_{3,1,1,-1}\left[\, m_{\bar{d}}^{\,\,i4}\, ,\; m_1\, ,\; m_{\bar{q}}^{\,\,i} + s_\gamma\; \widetilde{\mu}^{\,\,i}\, y_d^{\,\,i1i4}\right] \; \mathsf{LF}_{3,1,1,-1}\left[\, m_{\bar{d}}^{\,\,i4}\, ,\; m_1\, ,\; m_{\bar{q}}^{\,\,i} + s_\gamma\; \widetilde{\mu}^{\,\,i}\, y_d^{\,\,i1i4}\right] \; \mathsf{LF}_{3,1,1,-1}\left[\, m_{\bar{d}}^{\,\,i4}\, ,\; m_1\, ,\; m_{\bar{q}}^{\,\,i} + s_\gamma\; \widetilde{\mu}^{\,\,i}\, y_d^{\,\,i1i4}\right] \; \mathsf{LF}_{3,1,1,-1}\left[\, m_{\bar{d}}^{\,\,i} + s_\gamma\; \widetilde{\mu}^{\,\,i}\, y_d^{\,\,i1i4}\right] \; \mathsf{LF}_{3,1,-1}\left[\, m_{\bar{d}}^{\,\,i} + s_\gamma\; \widetilde{\mu}^{\,\,i}\, y_d^{\,\,i1i4}\right] \; \mathsf{LF}_{3,1}\left[\, m_{\bar{d}}^{\,\,i} + s_\gamma\; \widetilde{\mu}^{\,\,i}\, y_d^{\,\,i1i4}\right] \; \mathsf{LF}_{3,1}\left[\, m_{\bar{d}}^{\,\,i} + s_\gamma\; \widetilde{\mu}^{\,\,i}\, y_d^{\,\,i1i4}\right] \; \mathsf{LF}_{3,1}\left[\, m_{\bar{d}}^{\,\,i} + s_\gamma\; \widetilde{\mu}^{\,\,i1i4}\right] \; \mathsf{LF}_{3,1}\left[\, m_{\bar{d}}^{\,\,i} + s_\gamma\; \widetilde{\mu}^
                                                                                                                                                                \frac{2}{9}\;m_{3}\;c_{\gamma}\;g_{3}^{\;2}\;\overline{y_{d}}^{i\,2\,i\,3}\;\left(-\,c_{\gamma}\;a_{d}^{\;i\,1\,i\,4}\,+\,s_{\gamma}\;\widetilde{\mu}\;y_{d}^{\;i\,1\,i\,4}\right)\;\mathsf{LF}_{2,\,1,\,1,\,0}\left[\,m_{\tilde{d}}^{\;\;i\,4}\,,\;m_{3}\,,\;m_{\tilde{q}}^{\;\;2\,i\,3}\right]
                                                                                                                                                            \overset{2}{\overset{9}{_{g}}}\;m_{3}\;c_{\gamma}\;g_{3}^{\;2}\;\overline{y_{d}}^{i2i3}\;\left(c_{\gamma}\;a_{d}^{\;i1i4}-s_{\gamma}\;\tilde{\mu}\;y_{d}^{\;i1i4}\right)\;LF_{3,1,1,-1}\big[m_{\tilde{d}}^{\;i4},\;m_{3},\;m_{\tilde{q}}^{\;i1}\big]\;-
                                                                                                                                                            \frac{1}{6} \; s_{\gamma} \; \widetilde{\mu} \; \frac{1}{m_{o}^{2}} \; \left( \overline{y_{d}}^{\text{i2i3}} \; y_{d}^{\text{pi4}} \; y_{u}^{\text{i1r}} \; \left( c_{\gamma} \; \overline{a_{u}}^{\text{pr}} + s_{\gamma} \; \widetilde{\mu} \; \overline{y_{u}}^{\text{pr}} \right) \; + \\ \overline{y_{d}}^{\text{pi3}} \; y_{d}^{\text{i1i4}} \; \overline{y_{u}}^{\text{i2r}} \; \left( c_{\gamma} \; a_{u}^{\text{pr}} + s_{\gamma} \; \widetilde{\mu} \; y_{u}^{\text{pr}} \right) \right) \; . 
                                                                                                                                                                                        \mathsf{LF_{1,1,1,0}}\big[\mathsf{m}_{\tilde{q}}^{\,\,\mathsf{p}}\,,\,\mathsf{m}_{\tilde{u}}^{\,\,\mathsf{r}}\,,\,\widetilde{\mu}\,\big]\,+\,\tfrac{1}{12}\,\,\widetilde{\mu}\,\,c_{\gamma}\,\,\big(\overline{y_d}^{\,\mathsf{i2i3}}\,y_d^{\,\mathsf{pi4}}\,y_u^{\,\,\mathsf{i1r}}\,\,\big(s_{\gamma}\,\,\overline{a_u}^{\mathsf{pr}}\,-\,\widetilde{\mu}\,\,c_{\gamma}\,\,\overline{y_u}^{\mathsf{pr}}\big)\,+\,\frac{1}{12}\,\,\widetilde{\mu}\,\,c_{\gamma}\,\,(\overline{y_d}^{\,\,\mathsf{i2i3}}\,y_d^{\,\,\mathsf{pi4}}\,y_u^{\,\,\mathsf{i1r}}\,\,(s_{\gamma}\,\,\overline{a_u}^{\,\,\mathsf{pr}}\,-\,\widetilde{\mu}\,\,c_{\gamma}\,\,\overline{y_u}^{\,\,\mathsf{pr}})\,+\,\frac{1}{12}\,\,\widetilde{\mu}\,\,c_{\gamma}\,\,(\overline{y_d}^{\,\,\mathsf{i2i3}}\,y_d^{\,\,\mathsf{pi4}}\,y_u^{\,\,\mathsf{i1r}}\,\,(s_{\gamma}\,\,\overline{a_u}^{\,\,\mathsf{pr}}\,-\,\widetilde{\mu}\,\,c_{\gamma}\,\,\overline{y_u}^{\,\,\mathsf{pr}})\,+\,\frac{1}{12}\,\,\widetilde{\mu}\,\,c_{\gamma}\,\,(\overline{y_d}^{\,\,\mathsf{i2i3}}\,y_d^{\,\,\mathsf{pi4}}\,y_u^{\,\,\mathsf{pi4}}\,y_u^{\,\,\mathsf{i1r}}\,\,(s_{\gamma}\,\,\overline{a_u}^{\,\,\mathsf{pr}}\,-\,\widetilde{\mu}\,\,c_{\gamma}\,\,\overline{y_u}^{\,\,\mathsf{pr}})
                                                                                                                                                                                                                                                          \overline{y_d}^{\text{pi3}} \ y_d^{\text{iii4}} \ \overline{y_u}^{\text{i2r}} \ \left( s_{\gamma} \ a_u^{\text{pr}} - \widetilde{\mu} \ c_{\gamma} \ y_u^{\text{pr}} \right) \right) \ \mathsf{LF_{2,1,1,0}} \left[ \mathsf{m}_{\tilde{q}}^{\ p}, \ \mathsf{m}_{\tilde{u}}^{\ r}, \ \widetilde{\mu} \right] \ + \\
                                                                                                                                                                    \frac{1}{12} \; \widetilde{\mu} \; \mathbf{c}_{\mathrm{Y}} \; \left( \overline{\mathbf{y_d}}^{\texttt{i2i3}} \; \mathbf{y_d}^{\texttt{pi4}} \; \mathbf{y_u}^{\texttt{i1r}} \; \left( - \, \mathbf{s_{\mathrm{Y}}} \; \overline{\mathbf{a_u}}^{\texttt{pr}} + \widetilde{\mu} \; \mathbf{c_{\mathrm{Y}}} \; \overline{\mathbf{y_u}}^{\texttt{pr}} \right) \; + \; \overline{\mathbf{y_d}}^{\texttt{pi3}} \; \mathbf{y_d}^{\texttt{i1i4}} \; \overline{\mathbf{y_u}}^{\texttt{i2r}} \; \left( - \, \mathbf{s_{\mathrm{Y}}} \; \mathbf{a_u}^{\texttt{pr}} + \widetilde{\mu} \; \mathbf{c_{\mathrm{Y}}} \; \mathbf{y_u}^{\texttt{pr}} \right) \right)
                                                                                                                                                                                        \mathsf{LF_{3,1,1,-1}}\big[\mathsf{m}_{\bar{\mathsf{q}}}^{\;\mathsf{p}},\;\mathsf{m}_{\bar{\mathsf{u}}}^{\;\mathsf{r}},\;\widetilde{\mu}\big]\;+\;\tfrac{1}{24}\;\widetilde{\mu}\;\mathsf{c}_{\gamma}\;\left(\overline{y_d}^{\mathsf{i2i3}}\;y_d^{\;\mathsf{pi4}}\;y_u^{\;\mathsf{i1r}}\;\left(-\,\mathsf{s}_{\gamma}\;\overline{\mathsf{a}_u}^{\;\mathsf{pr}}+\,\widetilde{\mu}\;\mathsf{c}_{\gamma}\;\overline{y_u}^{\;\mathsf{pr}}\right)\;+\;\mathsf{c}_{\gamma}^{\;\mathsf{p}}\,\mathsf{c}_{\gamma}^{\;\mathsf{pr}}\right)\;+\;\mathsf{c}_{\gamma}^{\;\mathsf{pr}}\,\mathsf{c}_{\gamma}^{\;\mathsf{pr}}
                                                                                                                                                                                                                                                          \overline{y_d}^{\text{pi3}} \ y_d^{\text{ili4}} \ \overline{y_u}^{\text{i2r}} \ \left( - \, s_{\gamma} \, a_u^{\, \text{pr}} + \widetilde{\mu} \, c_{\gamma} \, y_u^{\, \text{pr}} \right) \right) \ LF_{2,2,1,-1} \left[ \, m_{\tilde{q}}^{\, \, p}, \, \widetilde{\mu}, \, m_{\tilde{u}}^{\, \, r} \, \right] + \\
                                                                                                                                                                                                                           _{\bar{d}}^{-} m_1 \, c_{\gamma} \, g_1^{-2} \, \overline{y_d}^{i2i3} \, \left( c_{\gamma} \, a_d^{\,i1i4} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\,i1i4} \right) \, LF_{2,1,1,0} \left[ m_{\tilde{q}}^{\,i1}, \, m_1, \, m_{\tilde{d}}^{\,i4} \right] + c_{\bar{d}}^{\,i1} \, m_1 \, m_{\bar{d}}^{\,i1} \, m_1 \, m_2 \, m_1 \, m_2 \, m
                                                                                                                                                                \frac{1}{108}\; m_1\; c_\gamma\; g_1^{\;2}\; \overline{y_d}^{i2i3}\; \left(-\, c_\gamma\; a_d^{\,i1i4}\, +\, s_\gamma\; \widetilde{\mu}\; y_d^{\,i1i4}\right)\; \mathsf{LF}_{3,1,1,-1}\!\left[\, m_{\tilde{q}}^{\;\;i1}\, ,\; m_1,\; m_{\tilde{d}}^{\;\;i4}\,\right]\; +\, c_\gamma\; \widetilde{\mu}\; y_d^{\,i1i4}
                                                                                                                                                                \frac{1}{q} \, m_3 \, c_{\gamma} \, g_3^2 \, \overline{y_d}^{i2i3} \, \left( - \, c_{\gamma} \, a_d^{\,i1i4} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\,i1i4} \right) \, \mathsf{LF}_{2,1,1,0} \left[ \, m_{\tilde{q}}^{\,\,i1} \, , \, m_3 \, , \, m_{\tilde{d}}^{\,\,i4} \, \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, m_3 \, , \, m_{\tilde{d}}^{\,\,i1} \, m_3 \, , \, m_{\tilde{d}}^{\,\,i2} \, m_3 \, , \, m_{\tilde{d}}
                                                                                                                                                                \frac{3}{a} \, m_3 \, c_{\gamma} \, g_3^2 \, \overline{y_d}^{i2i3} \, \left( c_{\gamma} \, a_d^{\,i1i4} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\,i1i4} \right) \, LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\,\,i1} \, , \, m_3 \, , \, m_{\tilde{d}}^{\,\,i4} \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, \left( c_{\gamma} \, a_d^{\,\,i1i4} - s_{\gamma} \, \widetilde{\mu} \, y_d^{\,\,i1i4} \right) \, LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\,\,i1} \, , \, m_3 \, , \, m_{\tilde{d}}^{\,\,i4} \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, \left( c_{\gamma} \, a_d^{\,\,i1i4} - s_{\gamma} \, \widetilde{\mu} \, \right) \, LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\,\,i1} \, , \, m_3 \, , \, m_{\tilde{d}}^{\,\,i2} \, \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, \left( c_{\gamma} \, a_d^{\,\,i1i4} - s_{\gamma} \, \widetilde{\mu} \, \right) \, LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\,\,i1} \, , \, m_3 \, , \, m_{\tilde{d}}^{\,\,i2} \, \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, \left( c_{\gamma} \, a_d^{\,\,i1i4} - s_{\gamma} \, \widetilde{\mu} \, \right) \, LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\,\,i1} \, , \, m_3 \, , \, m_{\tilde{d}}^{\,\,i2} \, \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, \left( c_{\gamma} \, a_d^{\,\,i1i4} - s_{\gamma} \, \widetilde{\mu} \, \right) \, LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\,\,i1} \, , \, m_3 \, , \, m_{\tilde{d}}^{\,\,i2} \, \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, \left( c_{\gamma} \, a_d^{\,\,i1i4} - s_{\gamma} \, \widetilde{\mu} \, \right) \, LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\,\,i1} \, , \, m_3 \, , \, m_{\tilde{d}}^{\,\,i2} \, \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, \left( c_{\gamma} \, a_d^{\,\,i1i4} - s_{\gamma} \, \widetilde{\mu} \, \right) \, LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\,\,i1} \, , \, m_3 \, , \, m_{\tilde{d}}^{\,\,i2} \, \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, \left( c_{\gamma} \, a_d^{\,\,i1i4} - s_{\gamma} \, \widetilde{\mu} \, \right) \, LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\,\,i1} \, , \, m_3 \, , \, m_{\tilde{d}}^{\,\,i2} \, \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, \left( c_{\gamma} \, a_d^{\,\,i1i4} - s_{\gamma} \, \widetilde{\mu} \, \right) \, LF_{3,1,1,-1} \left[ m_{\tilde{q}}^{\,\,i1} \, , \, m_3 \, , \, m_{\tilde{d}}^{\,\,i2} \, \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, \left( c_{\gamma} \, a_d^{\,\,i1i4} - s_{\gamma} \, \right) \, \widetilde{\mu} \, \widetilde{\mu} \, \left( c_{\gamma} \, a_d^{\,\,i1i4} - s_{\gamma} \, \widetilde{\mu} \, \right) \, \widetilde{\mu} \, \widetilde{\mu
                                                                                                                                                                                                                                   \mathsf{m_1} \; \mathsf{c_{_Y}} \; \mathsf{g_{1}}^2 \; \mathsf{y_d}^{\mathsf{ili4}} \; \left( \mathsf{c_{_Y}} \; \overline{\mathsf{a_d}}^{\mathsf{i2i3}} - \mathsf{s_{_Y}} \, \widetilde{\mu} \; \overline{\mathsf{y_d}}^{\mathsf{i2i3}} \right) \; \mathsf{LF_{2,1,1,0}} \big[ \, \mathsf{m_{\tilde{q}}}^{\mathsf{i2}} \! , \; \mathsf{m_1}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big] \; + \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \, + \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \, + \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \, + \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big] \; + \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \; + \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \, + \; \mathsf
                                                                                                                                                                \frac{1}{108}\; m_1\; c_\gamma\; g_1^2\; y_d^{\; \text{ili4}}\; \left(-\, c_\gamma\; \overline{a_d}^{\; \text{i2i3}} + s_\gamma\; \widetilde{\mu}\; \overline{y_d}^{\; \text{i2i3}}\right)\; \mathsf{LF}_{3,1,1,-1}\!\left[\, m_{\tilde{q}}^{\; \text{i2}} \, ,\; m_1 \, ,\; m_{\tilde{d}}^{\; \text{i3}}\, \right]\; + \left. m_{\tilde{q}}^{\; \text{i3}} \, \right) \; \mathsf{LF}_{3,1,1,-1} \left[\, m_{\tilde{q}}^{\; \text{i2}} \, ,\; m_1 \, ,\; m_{\tilde{q}}^{\; \text{i3}}\, \right] \; + \left. m_{\tilde{q}}^{\; \text{i3}} \, ,\; m_1 \, ,\; m_{\tilde{q}}^{\; \text{i3}} \, \right] \; + \left. m_{\tilde{q}}^{\; \text{i3}} \, ,\; m_1 \, ,\; m_{\tilde{q}}^{\; \text{i3}} \, ,\; m_2 \, ,\; m_2 \, ,\; m_2 \, ,\; m_2 \, ,\; m_3 
                                                                                                                                                                \frac{2}{9} \; m_{3} \; c_{\gamma} \; g_{3}^{\; 2} \; y_{d}^{\; 11i4} \; \left( - \, c_{\gamma} \; \overline{a_{d}}^{\; 12i3} \, + \, s_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; 12i3} \right) \; \mathsf{LF}_{2,1,1,0} \left[ \, m_{\tilde{q}}^{\; i2} \, , \; m_{3} \, , \; m_{\tilde{d}}^{\; i3} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; i2i3} + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; i2i3} \right] \; \mathsf{LF}_{2,1,1,0} \left[ \, m_{\tilde{q}}^{\; i2} \, , \; m_{3} \, , \; m_{\tilde{d}}^{\; i3} \, \right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \overline{y_{d}}^{\; i2i3} + \; c_{\gamma} \; \overline{y_{d}}^{\; i2i3} + \; 
                                                                                                                                                                \frac{2}{9} \; \mathsf{m_3} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{g_3}^2 \; \mathsf{y_d}^{\mathsf{ili4}} \; \left( \mathsf{c_{\scriptscriptstyle Y}} \; \overline{\mathsf{a_d}}^{\mathsf{i2i3}} - \mathsf{s_{\scriptscriptstyle Y}} \; \widetilde{\mu} \; \overline{\mathsf{y_d}}^{\mathsf{i2i3}} \right) \; \mathsf{LF_{3,1,1,-1}} \left[ \mathsf{m_{\bar{q}}}^{\mathsf{i2}} \; , \; \mathsf{m_3} \; , \; \mathsf{m_{\bar{d}}}^{\mathsf{i3}} \right] \; + \\
                                                                                                                                                                    \frac{1}{12} \; \tilde{\mu} \; \mathbf{c}_{\gamma} \; \left( \overline{\mathbf{y_d}}^{\mathbf{i2i3}} \; \mathbf{y_d}^{\mathbf{pi4}} \; \mathbf{y_u}^{\mathbf{i1r}} \; \left( \mathbf{s}_{\gamma} \; \overline{\mathbf{a_u}}^{\mathbf{pr}} - \tilde{\mu} \; \mathbf{c}_{\gamma} \; \overline{\mathbf{y_u}}^{\mathbf{pr}} \right) \; + \; \overline{\mathbf{y_d}}^{\mathbf{pi3}} \; \mathbf{y_d}^{\mathbf{i1i4}} \; \overline{\mathbf{y_u}}^{\mathbf{i2r}} \; \left( \mathbf{s}_{\gamma} \; \mathbf{a_u}^{\mathbf{pr}} - \tilde{\mu} \; \mathbf{c}_{\gamma} \; \mathbf{y_u}^{\mathbf{pr}} \right) \right)
                                                                                                                                                                                        \mathsf{LF}_{2,1,1,0}\!\left[\,\mathsf{m}_{\bar{\mathsf{u}}}^{\,\,\mathsf{r}}\,,\,\,\mathsf{m}_{\bar{\mathsf{q}}}^{\,\,\mathsf{p}}\,,\,\,\widetilde{\mu}\,\right]\,+\,\frac{1}{12}\,\,\widetilde{\mu}\,\,c_{\gamma}\,\left(\,\overline{y_{\mathsf{d}}}^{\,\,\mathsf{i}\,2\,\mathsf{i}\,3}\,\,y_{\mathsf{d}}^{\,\,\mathsf{p}\,\mathsf{i}\,4}\,\,y_{\mathsf{u}}^{\,\,\mathsf{i}\,\mathsf{1}\,\mathsf{r}}\,\left(\,-\,s_{\gamma}\,\,\overline{a_{\mathsf{u}}}^{\,\,\mathsf{p}\,\mathsf{r}}\,+\,\widetilde{\mu}\,\,c_{\gamma}\,\,\overline{y_{\mathsf{u}}}^{\,\,\mathsf{p}\,\mathsf{r}}\,\right)\,+\,2\,\left(\,\overline{y_{\mathsf{d}}}^{\,\,\mathsf{i}\,2\,\mathsf{i}\,3}\,\,y_{\mathsf{d}}^{\,\,\mathsf{p}\,\mathsf{i}\,4}\,\,y_{\mathsf{u}}^{\,\,\mathsf{i}\,\mathsf{1}\,\mathsf{r}}\,\left(\,-\,s_{\gamma}\,\,\overline{a_{\mathsf{u}}}^{\,\,\mathsf{p}\,\mathsf{r}}\,+\,\widetilde{\mu}\,\,c_{\gamma}\,\,\overline{y_{\mathsf{u}}}^{\,\,\mathsf{p}\,\mathsf{r}}\,\right)\,+\,2\,\left(\,\overline{y_{\mathsf{d}}}^{\,\,\mathsf{i}\,2\,\mathsf{i}\,3}\,\,y_{\mathsf{d}}^{\,\,\mathsf{p}\,\mathsf{i}\,4}\,\,y_{\mathsf{d}}^{\,\,\mathsf{i}\,1}\,\,x_{\mathsf{d}}^{\,\,\mathsf{i}\,1}\,\,x_{\mathsf{d}}^{\,\,\mathsf{i}\,2}\,\,x_{\mathsf{d}}^{\,\,\mathsf{p}\,\mathsf{r}}\,\right)
                                                                                                                                                                                                                                                          \overline{y_d}^{\text{pi3}} \ y_d^{\text{iii4}} \ \overline{y_u}^{\text{i2r}} \ \left( - \, s_{\gamma} \ a_u^{\, \text{pr}} + \widetilde{\mu} \ c_{\gamma} \ y_u^{\, \text{pr}} \right) \right) \ LF_{3,1,1,-1} \left[ \, m_{\tilde{u}}^{\, \text{r}} \,, \ m_{\tilde{q}}^{\, \text{p}} \,, \ \widetilde{\mu} \, \right] + C_{\gamma} \, m_{\tilde{q}}^{\, \text{pr}} + \widetilde{\mu} \, c_{\gamma} \, m_{\tilde{q}}^{\, \text{pr}} \right] + C_{\gamma} \, m_{\tilde{q}}^{\, \text{pr}} + \widetilde{\mu} \, m_{\tilde{q}
                                                                                                                                                                    \frac{1}{24} \; \widetilde{\mu} \; \mathbf{c}_{\mathrm{Y}} \; \left( \overline{\mathbf{y}_{\mathrm{d}}}^{\mathrm{i2i3}} \; \mathbf{y}_{\mathrm{d}}^{\mathrm{pi4}} \; \mathbf{y}_{\mathrm{u}}^{\mathrm{i1r}} \; \left( - \, \mathbf{s}_{\mathrm{Y}} \; \overline{\mathbf{a}_{\mathrm{u}}}^{\mathrm{pr}} + \widetilde{\mu} \; \mathbf{c}_{\mathrm{Y}} \; \overline{\mathbf{y}_{\mathrm{u}}}^{\mathrm{pr}} \right) \; + \; \overline{\mathbf{y}_{\mathrm{d}}}^{\mathrm{pi3}} \; \mathbf{y}_{\mathrm{d}}^{\mathrm{i1i4}} \; \overline{\mathbf{y}_{\mathrm{u}}}^{\mathrm{i2r}} \; \left( - \, \mathbf{s}_{\mathrm{Y}} \; \mathbf{a}_{\mathrm{u}}^{\mathrm{pr}} + \widetilde{\mu} \; \mathbf{c}_{\mathrm{Y}} \; \mathbf{y}_{\mathrm{u}}^{\mathrm{pr}} \right) \right)
                                                                                                                                                                                        \mathsf{LF_{2,2,1,-1}}\big[\mathsf{m_{\tilde{u}}}^\mathsf{r}\,,\,\tilde{\mu}\,,\,\mathsf{m_{\tilde{q}}}^\mathsf{p}\big] \,-\, \tfrac{1}{4}\,\,\overline{y_d}^\mathsf{ri3}\,\,\overline{y_d}^\mathsf{i2p}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{i1p}\,\,\mathsf{LF_{2,1,1,-1}}\big[\,\tilde{\mu}\,,\,\mathsf{m_{\tilde{d}}}^\mathsf{p}\,,\,\mathsf{m_{\tilde{q}}}^\mathsf{r}\big] \,-\, \tfrac{1}{4}\,\,\overline{y_d}^\mathsf{ri3}\,\,\overline{y_d}^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,\mathsf{LF_{2,1,1,-1}}\big[\,\tilde{\mu}\,,\,\mathsf{m_{\tilde{d}}}^\mathsf{p}\,,\,\mathsf{m_{\tilde{q}}}^\mathsf{p}\big] \,-\, \tfrac{1}{4}\,\,\overline{y_d}^\mathsf{ri3}\,\,\overline{y_d}^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,\mathsf{LF_{2,1,1,-1}}\big[\,\tilde{\mu}\,,\,\mathsf{m_{\tilde{d}}}^\mathsf{p}\,,\,\mathsf{m_{\tilde{d}}}^\mathsf{p}\,,\,\mathsf{m_{\tilde{d}}}^\mathsf{p}\,\big] \,-\, \tfrac{1}{4}\,\,\overline{y_d}^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^\mathsf{ri4}\,\,y_d^
                                                                                                                                                            \frac{1}{2}\;\widetilde{\mu}^2\;\overline{y_d}^{\text{pi3}}\;y_d^{\text{pi4}}\;\overline{y_u}^{\text{i2r}}\;y_u^{\text{i1r}}\;\mathsf{LF}_{2,1,1,0}\big[\widetilde{\mu}\,,\,m_{\tilde{q}}^{\;p}\,,\,m_{\tilde{u}}^{\;r}\big]\;+
                                                                                                                                                                \frac{1}{108} g_1^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{1,1,1,1,-1}[m_1, m_{\bar{d}}^{-i3}, m_{\bar{q}}^{-i1}, \widetilde{\mu}] +
                                                                                                                                                            \frac{1}{54}~g_1{}^2~\overline{y_d}^{i2i3}~y_d{}^{i1i4}~\mathsf{LF_{1,1,1,1,-1}}\big[\mathsf{m_1,\,m_{\bar{d}}}^{i4},\,\mathsf{m_{\bar{d}}}^{i3},\,\tilde{\mu}\big]~+
                                                                                                                                                            \frac{1}{108}~g_1^{~2}~\overline{y_d}^{i\,2\,i\,3}~y_d^{~i\,1\,i\,4}~\mathsf{LF_{1,1,1,1,-1}}\big[\,\mathsf{m_1}\,,\,\mathsf{m_{\bar{d}}}^{-i\,4}\,,\,\mathsf{m_{\tilde{q}}}^{i\,2}\,,\,\widetilde{\mu}\,\big] +
                                                                                                                                                                \frac{1}{216} g_1^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{1,1,1,1,-1}[m_1, m_{\tilde{q}}^{i2}, m_{\tilde{q}}^{i1}, \tilde{\mu}] +
                                                                                                                                                            \frac{1}{8}~g_2^2~\overline{y_d}^{i2i3}~y_d^{i1i4}~\mathsf{LF_{1,1,1,1,-1}}\big[\,\mathsf{m_2}\,,\,\mathsf{m_{\bar{q}}}^{i2}\,,\,\mathsf{m_{\bar{q}}}^{i1}\,,\,\tilde{\mu}\,\big] -
                                                                                                                                                                \frac{2}{9} g<sub>3</sub><sup>2</sup> \overline{y_d}^{i2i3} y<sub>d</sub><sup>i1i4</sup> LF<sub>1,1,1,1,-1</sub>[m<sub>3</sub>, m<sub>d</sub><sup>i3</sup>, m<sub>q</sub><sup>i1</sup>, \widetilde{\mu}] +
                                                                                                                                                                                               g_3^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{1,1,1,1,-1}[m_3, m_{\tilde{d}}^{i4}, m_{\tilde{d}}^{i3}, \tilde{\mu}] -
                                                                                                                                                            \tfrac{2}{9}~g_3{}^2~\overline{y_d}^{1213}~y_d{}^{1114}~\mathsf{LF_{1,1,1,1,-1}}\big[\,\mathsf{m_3}\,,~\mathsf{m_{\tilde{d}}}^{14}\,,~\mathsf{m_{\tilde{q}}}^{12}\,,~\widetilde{\mu}\,\big]~+
                                                                                                                                                                                               g_3^2 \overline{y_d}^{i2i3} y_d^{i1i4} LF_{1,1,1,1,-1}[m_3, m_{\tilde{q}}^{i2}, m_{\tilde{q}}^{i1}, \tilde{\mu}])
```