```
C_{\sf dd}<sup>i1_i2_i3_i4</sup>\rightarrow
                   \frac{1}{16\,\pi^{2}}\ \left(\frac{1}{324}\ \frac{1}{m_{\text{o}}^{2}}\ s_{\gamma}^{2}\ \overline{y_{d}}^{\text{pi3}}\ \left(y_{d}^{\text{pi4}}\ \left(-81\ c_{\gamma}^{2}\ \overline{y_{d}}^{\text{ri1}}\ y_{d}^{\text{ri2}}+\ \left(g_{1}^{2}+12\ g_{3}^{2}\right)\ \delta_{\text{ili2}}\right)-36\ g_{3}^{2}\ y_{d}^{\text{pi2}}\ \delta_{\text{ili4}}\right)+
                                                                                                                   \frac{4}{45} g_3^4 (-3 \delta_{i1i4} \delta_{i2i3} + \delta_{i1i2} \delta_{i3i4}) LF_{5,-2}[m_3] +
                                                                                                                       \frac{2}{1215} \, \sum_{p} \, \left( 27 \, {g_{3}}^4 \, \delta_{\textbf{1114}} \, \delta_{\textbf{1213}} + \, \left( 4 \, {g_{1}}^4 - 9 \, {g_{3}}^4 \right) \, \delta_{\textbf{1112}} \, \delta_{\textbf{1314}} \right) \, \text{LF}_{5,-2} \left[ \, m_{\tilde{d}}^{\,\, p} \, \right] \, + \, \left( 4 \, {g_{1}}^4 - 9 \, {g_{3}}^4 \right) \, \delta_{\textbf{1112}} \, \delta_{\textbf{1314}} \, \delta
                                                                                                                       \frac{2}{81} \, \sum_{p} \, {g_{1}}^{4} \, \mathsf{LF}_{3,0} \left[ \, \mathsf{m_{e}}^{\, p} \, \right] \, \delta_{\mathsf{i} \mathsf{1} \mathsf{i} \mathsf{2}} \, \delta_{\mathsf{i} \mathsf{3} \mathsf{i} \mathsf{4}} \, - \, \frac{5}{108} \, \sum_{p} \, {g_{1}}^{4} \, \mathsf{LF}_{\mathsf{4,-1}} \! \left[ \, \mathsf{m_{e}}^{\, p} \, \right] \, \delta_{\mathsf{i} \mathsf{1} \mathsf{i} \mathsf{2}} \, \delta_{\mathsf{i} \mathsf{3} \mathsf{i} \mathsf{4}} \, + \, \frac{1}{100} \, \left[ \, \mathsf{m_{e}}^{\, p} \, \mathsf{m_{e}}^{\, p} \, \right] \, \delta_{\mathsf{i} \mathsf{1} \mathsf{1} \mathsf{2}} \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{100} \, \left[ \, \mathsf{m_{e}}^{\, p} \, \mathsf{m_{e}}^{\, p} \, \mathsf{m_{e}}^{\, p} \, \right] \, \delta_{\mathsf{i} \mathsf{1} \mathsf{1} \mathsf{2}} \, \delta_{\mathsf{i} \mathsf{3} \mathsf{3} \mathsf{4}} \, + \, \frac{1}{100} \, \left[ \, \mathsf{m_{e}}^{\, p} \, \mathsf{m_{e}}^{
                                                                                                                       \frac{1}{243} \, \sum_{p} \, \left( 27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{1}\dot{4}} \; \delta_{\dot{1}\dot{2}\dot{3}} \; + \; \left( {g_{1}}^{4} - 9 \; {g_{3}}^{4} \right) \; \delta_{\dot{1}\dot{1}\dot{2}} \; \delta_{\dot{1}\dot{3}\dot{4}} \right) \; \mathsf{LF}_{3,0} \left[ \mathsf{m}_{\bar{q}}^{-p} \right] \; - \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{1}\dot{4}} \; \delta_{\dot{1}\dot{2}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{1}\dot{4}} \; \delta_{\dot{1}\dot{2}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{1}\dot{4}} \; \delta_{\dot{1}\dot{2}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{1}\dot{4}} \; \delta_{\dot{1}\dot{2}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{1}\dot{4}} \; \delta_{\dot{1}\dot{2}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{1}\dot{4}} \; \delta_{\dot{1}\dot{2}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{1}\dot{4}} \; \delta_{\dot{1}\dot{2}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{1}\dot{4}} \; \delta_{\dot{1}\dot{2}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{1}\dot{4}} \; \delta_{\dot{1}\dot{2}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{1}\dot{4}} \; \delta_{\dot{1}\dot{2}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{1}\dot{4}} \; \delta_{\dot{1}\dot{2}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{3}\dot{4}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; \delta_{\dot{1}\dot{3}} \; + \; \left( (27 \; {g_{3}}^{4} \; + \; \left( (27 \;
                                                                                                                       \frac{5}{648} \, \sum_{p} \, \left( 27 \, {g_{3}}^{4} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{2}\dot{1}\dot{3}} + \, \left( {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} \right) \, \text{LF}_{4,-1} \big[ m_{\dot{q}}^{-p} \big] \, + \, \left( {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \, \left( {g_{1}}^{4} - {g_{1}}^{2} + {g_{1}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} + \, \left( {g_{1}}^{4} - {g_{1}}^{4} + {g_
                                                                                                                       \frac{\text{4}}{\text{1215}} \, \sum_{p} \, \left( 27 \, {g_{3}}^{4} \, \delta_{\text{11i4}} \, \delta_{\text{12i3}} + \, \left( {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\text{11i2}} \, \delta_{\text{13i4}} \right) \, \text{LF}_{5,-2} \! \left[ \, m_{\bar{q}}^{-p} \, \right] \, + \, \left( \, m_{\bar{q}}^{-p} \, m_{\bar{q
                                                                                                                       \frac{1}{486} \, \sum_{p} \, \left( 27 \, {g_{3}}^{4} \, \delta_{\dot{1}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{2}\dot{1}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} \right) \, \mathsf{LF}_{3,0} \left[ \tilde{\mathsf{m}_{\ddot{u}}}^{p} \right] \, - \, \left( 27 \, {g_{3}}^{4} \, \delta_{\dot{1}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{2}\dot{1}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} \right) \, \mathsf{LF}_{3,0} \left[ \tilde{\mathsf{m}_{\ddot{u}}}^{p} \right] \, - \, \left( 27 \, {g_{3}}^{4} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{2}\dot{1}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} \right) \, \mathsf{LF}_{3,0} \left[ \tilde{\mathsf{m}_{\ddot{u}}}^{p} \right] \, - \, \left( 27 \, {g_{3}}^{4} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{2}\dot{1}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} \right] \, + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{3}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{3}\dot{1}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{3}\dot{1}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{3}\dot{1}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{3}\dot{1}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{3}\dot{1}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{3}\dot{1}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1
                                                                                                                       \frac{5}{1296} \, \sum_{p} \, \left( 27 \, {g_{3}}^{4} \, \delta_{\mbox{\scriptsize ili4}} \, \delta_{\mbox{\scriptsize i2i3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\mbox{\scriptsize ili2}} \, \delta_{\mbox{\scriptsize i3i4}} \right) \, LF_{\mbox{\scriptsize 4,-1}} \! \left[ m_{\mbox{\scriptsize u}}^{\mbox{\tiny p}} \right] \, + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\mbox{\scriptsize ili2}} \, \delta_{\mbox{\scriptsize i3i4}} \right) \, LF_{\mbox{\scriptsize 4,-1}} \! \left[ m_{\mbox{\scriptsize u}}^{\mbox{\tiny p}} \right] \, + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\mbox{\scriptsize i1i2}} \, \delta_{\mbox{\scriptsize i3i4}} \right) \, LF_{\mbox{\scriptsize 4,-1}} \! \left[ m_{\mbox{\scriptsize u}}^{\mbox{\tiny p}} \right] \, + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\mbox{\scriptsize i1i2}} \, \delta_{\mbox{\scriptsize i3i4}} \right] \, LF_{\mbox{\scriptsize 4,-1}} \! \left[ m_{\mbox{\scriptsize u}}^{\mbox{\tiny p}} \right] \, + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\mbox{\scriptsize i1i2}} \, \delta_{\mbox{\scriptsize i3i4}} \right] \, LF_{\mbox{\scriptsize 4,-1}} \! \left[ m_{\mbox{\scriptsize u}}^{\mbox{\tiny p}} \right] \, + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\mbox{\scriptsize i1i2}} \, \delta_{\mbox{\scriptsize i3i4}} \right] \, LF_{\mbox{\scriptsize 4,-1}} \! \left[ m_{\mbox{\scriptsize u}}^{\mbox{\tiny p}} \right] \, + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\mbox{\scriptsize 11i2}} \, \delta_{\mbox{\scriptsize 11i
                                                                                                                       \frac{2}{1215} \, \sum_{p} \, \left( 27 \, {g_{3}}^{4} \, \delta_{\dot{1}\dot{1}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{2}\dot{1}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} \right) \, \mathsf{LF}_{5,-2} \left[ m_{\tilde{u}}^{\;\;p} \right] \, + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} \right] \, \mathsf{LF}_{5,-2} \left[ m_{\tilde{u}}^{\;\;p} \right] \, + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{2}\dot{1}\dot{3}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{2}\dot{1}\dot{3}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{2}\dot{1}\dot{3}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{2}\dot{1}\dot{3}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{4}} \, \delta_{\dot{1}\dot{1}\dot{2}\dot{3}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{3}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{1}\dot{3}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{1}\dot{2}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{3}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{3}}^{4} \right) \, \delta_{\dot{1}\dot{1}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{1}\dot{3}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{2}}^{4} \right) \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{2}}^{4} \right) \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} + \, \left( 16 \, {g_{1}}^{4} - 9 \, {g_{2}}^{4} \right) \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}\dot{3}} \, \delta_{\dot{1}\dot{3}\dot{3}\dot{3}} \,
                                                                                                                       \frac{1}{54} \; {s_{\gamma}}^2 \; \overline{y_d}^{\text{pi3}} \; \left( {y_d}^{\text{pi4}} \; \left( 27 \; {c_{\gamma}}^2 \; \overline{y_d}^{\text{ri1}} \; {y_d}^{\text{ri2}} + 2 \; \left( {g_1}^2 + 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} \right) \; - \; 18 \; {g_3}^2 \; {y_d}^{\text{pi2}} \; \delta_{\text{ili4}} \right) \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text{M}_{\tiny{\oplus}} ] \; + \; 10 \; \text{LF}_{\text{1,2}} [ \; \text
                                                                                                                       \frac{1}{36} \; {s_{\gamma}}^2 \; \overline{y_d}^{\text{pi3}} \; {y_d}^{\text{pi4}} \; \left(9 \; {s_{\gamma}}^2 \; \overline{y_d}^{\text{ri1}} \; {y_d}^{\text{ri2}} - 2 \; {g_1}^2 \; \delta_{\text{ili2}}\right) \; \mathsf{LF_{2,1}[m_{\scriptscriptstyle{\oplus}}]} \; + \\
                                                                                                                       \frac{1}{162} \ g_1{}^2 \ \left(9 \ s_{\gamma}{}^2 \ \overline{y_d}{}^{pi3} \ y_d{}^{pi4} + 2 \ g_1{}^2 \ \delta_{i3i4}\right) \ \mathsf{LF}_{3,0}[\,\mathsf{m}_{\scriptscriptstyle{\oplus}}\,] \ \delta_{i1i2} - \frac{5}{216} \ g_1{}^4 \ \mathsf{LF}_{4,-1}[\,\mathsf{m}_{\scriptscriptstyle{\oplus}}\,] \ \delta_{i1i2} \ \delta_{i3i4} + \frac{1}{2} \ \delta_{i3i4} + \frac{1}{
                                                                                                                       \frac{\textbf{4}}{\textbf{405}}\ \textbf{g_1}^{\textbf{4}}\ \textbf{LF_{5,-2}}\ [\textbf{m}_{\tiny{\oplus}}]\ \delta_{\texttt{1112}}\ \delta_{\texttt{1314}}\ +\ \frac{\textbf{1}}{\textbf{81}}\ \textbf{g_1}^{\textbf{4}}\ \textbf{LF_{3,0}}\ [\widetilde{\mu}]\ \delta_{\texttt{1112}}\ \delta_{\texttt{1314}}\ +\ \frac{\textbf{1}}{\textbf{81}}\ \textbf{m_{\oplus}}\ [\textbf{1}]\ \delta_{\texttt{1112}}\ \delta_{\texttt{1314}}\ +\ \frac{\textbf{1}}{\textbf{1}}\ \textbf{1}
                                                                                                                       \frac{1}{54} \; {g_{1}}^{4} \; \mathsf{LF_{4,-1}}[\tilde{\mu}] \; \delta_{\mathsf{1112}} \; \delta_{\mathsf{1314}} - \frac{8}{405} \; {g_{1}}^{4} \; \mathsf{LF_{5,-2}}[\tilde{\mu}] \; \delta_{\mathsf{1112}} \; \delta_{\mathsf{1314}} + \frac{1}{100} \; \delta_{\mathsf{1112}} \; \delta_{\mathsf{1314}} + \frac{1}{100} \; \delta_{\mathsf{1314}} + \frac{1}{100}
                                                                                                                       \frac{1}{486}~g_{1}^{2}~\left(9~g_{3}^{2}~\delta_{\text{ili4}}~\delta_{\text{i2i3}}+~\left(2~g_{1}^{2}-3~g_{3}^{2}\right)~\delta_{\text{ili2}}~\delta_{\text{i3i4}}\right)~\mathsf{LF}_{2,\text{1,0}}\left[\mathsf{m}_{\text{1}},~\mathsf{m}_{\tilde{\text{d}}}^{\text{i4}}\right]+
                                                                                                                       \frac{1}{486}~g_{1}^{2}~\left(9~g_{3}^{2}~\delta_{\text{ili4}}~\delta_{\text{i2i3}}+~\left(2~g_{1}^{2}-3~g_{3}^{2}\right)~\delta_{\text{ili2}}~\delta_{\text{i3i4}}\right)~\mathsf{LF}_{2,2,-1}\!\left[\mathsf{m}_{1},~\mathsf{m}_{\tilde{d}}^{\text{i4}}\right]+\\
                                                                                                                       \frac{1}{243}~g_{1}^{2}~\left(-9~g_{3}^{2}~\delta_{\text{ili4}}~\delta_{\text{i2i3}}+~\left(-2~g_{1}^{2}+3~g_{3}^{2}\right)~\delta_{\text{ili2}}~\delta_{\text{i3i4}}\right)~\mathsf{LF_{3,1,-1}}\!\left[\mathsf{m_{1}},~\mathsf{m_{\tilde{d}}}^{\text{i4}}\right]+\\
                                                                                                                       \frac{1}{486} \ g_1{}^2 \ \left(9 \ g_3{}^2 \ \delta_{\textbf{i} \textbf{1} \textbf{i} \textbf{4}} \ \delta_{\textbf{i} \textbf{2} \textbf{i} \textbf{3}} + \ \left(2 \ g_1{}^2 - 3 \ g_3{}^2\right) \ \delta_{\textbf{i} \textbf{1} \textbf{i} \textbf{2}} \ \delta_{\textbf{i} \textbf{3} \textbf{i} \textbf{4}}\right) \ \mathsf{LF_{4,1,-2}} \left[\mathsf{m_1, m_{\tilde{d}}}^{\textbf{i} \textbf{4}}\right] + \\
                                                                                                                       \frac{1}{324} \, \left(-9 \, {g_3}^4 \, \delta_{\textbf{11i4}} \, \delta_{\textbf{12i3}} + {g_3}^2 \, \left(\textbf{16} \, {g_1}^2 + \textbf{3} \, {g_3}^2\right) \, \delta_{\textbf{11i2}} \, \delta_{\textbf{13i4}}\right) \, \mathsf{LF_{2,2,-1}} \big[ \mathsf{m_3} \, , \, \mathsf{m_{\tilde{d}}}^{\textbf{14}} \big] \, + \, \mathcal{F}_{\textbf{1},\textbf{1},\textbf{1}} \, \mathcal{F}_{\textbf{1},\textbf{1}} \, \mathcal{F}_
                                                                                                                       \frac{1}{324} \, \left(-\, 225 \, {g_3}^4 \, \delta_{\textbf{1114}} \, \delta_{\textbf{1213}} + {g_3}^2 \, \left(-\, 32 \, {g_1}^2 + 75 \, {g_3}^2\right) \, \delta_{\textbf{1112}} \, \delta_{\textbf{1314}}\right) \, \mathsf{LF_{3,1,-1}} \big[ \, \mathsf{m_3} \, , \, \, \mathsf{m_d^{-14}} \big] \, + \, \left(-\, 32 \, {g_1}^2 + 75 \, {g_3}^2\right) \, \delta_{\textbf{1112}} \, \delta_{\textbf{1314}} \, \delta_{\textbf{1
                                                                                                                       \frac{2}{81} \; g_{3}^{2} \; \left(9 \; g_{3}^{\; 2} \; \delta_{\textbf{i} \textbf{1} \textbf{i} \textbf{4}} \; \delta_{\textbf{i} \textbf{2} \textbf{i} \textbf{3}} \; + \; \left(2 \; g_{1}^{\; 2} - 3 \; g_{3}^{\; 2}\right) \; \delta_{\textbf{i} \textbf{1} \textbf{i} \textbf{2}} \; \delta_{\textbf{i} \textbf{3} \textbf{i} \textbf{4}}\right) \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \left(2 \; g_{1}^{\; 2} - 3 \; g_{3}^{\; 2}\right) \; \delta_{\textbf{i} \textbf{1} \textbf{i} \textbf{2}} \; \delta_{\textbf{i} \textbf{3} \textbf{i} \textbf{4}}\right) \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \left(2 \; g_{1}^{\; 2} - 3 \; g_{3}^{\; 2}\right) \; \delta_{\textbf{i} \textbf{1} \textbf{i} \textbf{2}} \; \delta_{\textbf{i} \textbf{3} \textbf{3} \textbf{4}}\right) \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \left(2 \; g_{1}^{\; 2} - 3 \; g_{3}^{\; 2}\right) \; \delta_{\textbf{i} \textbf{1} \textbf{1} \textbf{2}} \; \delta_{\textbf{i} \textbf{3} \textbf{3} \textbf{4}}\right) \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{3}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{\tilde{d}}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{\tilde{d}}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i} \textbf{4}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{\tilde{d}}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{\tilde{d}}} \; , \; \mathsf{m_{\tilde{d}}}^{\; \textbf{i}}\right] \; + \; \mathsf{LF_{4,1,-2}} \left[\mathsf{m_{\tilde{d}}} \; , \; \mathsf{m_{\tilde{d}}}^{\;
                                                                                                                       \frac{1}{243} \; g_{1}^{\; 2} \; \left( -9 \; g_{3}^{\; 2} \; \delta_{\text{ili4}} \; \delta_{\text{i2i3}} + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili2}} \; \delta_{\text{i3i4}} \right) \; \mathsf{LF}_{2,1,0} \left[ \, \mathsf{m_{\tilde{d}}}^{\; i4} \, , \; \mathsf{m_{1}} \, \right] \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili2}} \; \delta_{\text{i3i4}} \right) \; \mathsf{LF}_{2,1,0} \left[ \, \mathsf{m_{\tilde{d}}}^{\; i4} \, , \; \mathsf{m_{1}} \, \right] \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili2}} \; \delta_{\text{i3i4}} \right) \; \mathsf{LF}_{2,1,0} \left[ \, \mathsf{m_{\tilde{d}}}^{\; i4} \, , \; \mathsf{m_{1}} \, \right] \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili2}} \; \delta_{\text{i3i4}} \right] \; \mathsf{LF}_{2,1,0} \left[ \, \mathsf{m_{\tilde{d}}}^{\; i4} \, , \; \mathsf{m_{1}} \, \right] \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili2}} \; \delta_{\text{i3i4}} \right] \; \mathsf{LF}_{2,1,0} \left[ \, \mathsf{m_{\tilde{d}}}^{\; i4} \, , \; \mathsf{m_{1}} \, \right] \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili2}} \; \delta_{\text{i3i4}} \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; \delta_{\text{ili3}} \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2} \right) \; \delta_{\text{ili3}} \; + \; \left( -2 \; g_{1}^{\; 2}
                                                                                                                       \frac{1}{486}~g_{1}^{2}~\left(9~g_{3}^{2}~\delta_{\text{ili4}}~\delta_{\text{i2i3}}+~\left(2~g_{1}^{2}-3~g_{3}^{2}\right)~\delta_{\text{ili2}}~\delta_{\text{i3i4}}\right)~\mathsf{LF}_{3,1,-1}\!\left[m_{d}^{-\text{i4}},~m_{1}\right]+\frac{1}{486}~g_{1}^{2}~\left(9~g_{3}^{2}~\delta_{\text{ili4}}~\delta_{\text{i2i3}}\right)
                                                                                                                                                                                               \left(9\;g_{3}^{\;4}\;\delta_{\text{ili4}}\;\delta_{\text{i2i3}}-g_{3}^{\;2}\;\left(16\;g_{1}^{\;2}+3\;g_{3}^{\;2}\right)\;\delta_{\text{ili2}}\;\delta_{\text{i3i4}}\right)\;\mathsf{LF}_{2,1,0}\left[\mathsf{m}_{\tilde{\mathsf{d}}}^{\;i4},\;\mathsf{m}_{3}\right]+\left(16\;g_{1}^{\;2}+3\;g_{3}^{\;2}\right)\;\delta_{\text{ili2}}\;\delta_{\text{i3i4}}\left(16\;g_{1}^{\;2}+3\;g_{3}^{\;2}\right)
                                                                                                                       162
                                                                                                                       \frac{1}{324} \left(-9 \; g_{3}^{\; 4} \; \delta_{\textbf{1114}} \; \delta_{\textbf{1213}} + g_{3}^{\; 2} \; \left(16 \; g_{1}^{\; 2} + 3 \; g_{3}^{\; 2}\right) \; \delta_{\textbf{1112}} \; \delta_{\textbf{1314}}\right) \; \mathsf{LF_{3,1,-1}} \left[\mathsf{m_{\tilde{d}}}^{\; 14}, \; \mathsf{m_{3}}\right] \; + \; \mathcal{M}_{3,1,-1} \left[\mathsf{m_{\tilde{d}}}^{
                                                                                                                   \frac{1}{27} \; \overline{y_d}^{\text{pi3}} \; \left( y_d^{\text{pi4}} \; \left( g_1^2 + 3 \; g_3^2 \right) \; \delta_{\text{ili2}} - 9 \; g_3^2 \; y_d^{\text{pi2}} \; \delta_{\text{ili4}} \right) \; \text{LF}_{2,\text{1,0}} \left[ m_{\tilde{q}}^{\; p} \text{, } \widetilde{\mu} \right] + 2 \left( m_{\tilde{q}}^{\; p} \right) \; \mathcal{F}_{2,\text{1,0}} \left[ m_{\tilde{q}}^{\; p} \right] \; \mathcal{F}
                                                                                                                       \frac{1}{54} \; \overline{y_d}^{\text{pi3}} \; \left( - \, {y_d}^{\text{pi4}} \; \left( \, {g_1}^2 \, + \, 3 \; {g_3}^2 \, \right) \; \delta_{\text{ili2}} \, + \, 9 \; {g_3}^2 \; {y_d}^{\text{pi2}} \; \delta_{\text{ili4}} \right) \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 0 \; \text{LF}_{2,2,-1} \left[ \, m_{\bar{q}}^{\; p} \, , \; \widetilde{\mu} \, \right] \, + \, 
                                                                                                                       \frac{1}{54} \ \overline{y_d}^{\text{pi3}} \ \left(-\, {y_d}^{\text{pi4}} \ \left({g_1}^2 + 3 \ {g_3}^2\right) \ \delta_{\text{ili2}} + 9 \ {g_3}^2 \ {y_d}^{\text{pi2}} \ \delta_{\text{ili4}}\right) \ \mathsf{LF_{3,1,-1}} \left[\, \mathfrak{m}_{\tilde{\mathfrak{q}}}^{\,\, p} \,, \ \widetilde{\mu}\,\right] + \frac{1}{3} \left(-\, {y_d}^{\,\, p} \,, \ {g_3}^2 \,,
                                                                                                                       \frac{1}{54} \; \overline{y_d}{^{pi3}} \; \left( -\, y_d{^{pi4}} \; \left( g_1{^2} \, + \, 3 \; g_3{^2} \right) \; \delta_{\text{ili2}} \, + \, 9 \; g_3{^2} \; y_d{^{pi2}} \; \delta_{\text{ili4}} \right) \; \text{LF}_{2,\text{l},\text{0}} \left[ \, \widetilde{\mu} \, , \; \text{m}_{\widetilde{q}}{^p} \, \right] \, + \, 3 \; g_3{^2} \; \phi_{\text{ili2}} + \, 9 \; g_3{^2} \; y_d{^{pi2}} \; \delta_{\text{ili4}} \right) \; \text{LF}_{2,\text{l},\text{0}} \left[ \, \widetilde{\mu} \, , \; \text{m}_{\widetilde{q}}{^p} \, \right] \, + \, 3 \; g_3{^2} \; \phi_{\text{ili2}} + \, 9 \; g_3{^2} \; y_d{^{pi2}} \; \delta_{\text{ili4}} \right] \; \text{LF}_{2,\text{l},\text{0}} \left[ \, \widetilde{\mu} \, , \; \text{m}_{\widetilde{q}}{^p} \, \right] \, + \, 3 \; g_3{^2} \; \phi_{\text{ili2}} + \, 9 \; g_3{^2} \; y_d{^{pi2}} \; \delta_{\text{ili4}} \right] \; \text{LF}_{2,\text{l},\text{0}} \left[ \, \widetilde{\mu} \, , \; \text{m}_{\widetilde{q}}{^p} \, \right] \; + \, 3 \; g_3{^2} \; \phi_{\text{ili2}} + \, 9 \; g_3{^2} \; y_d{^{pi2}} \; \delta_{\text{ili4}} \right] \; \text{LF}_{2,\text{l},\text{0}} \left[ \, \widetilde{\mu} \, , \; \text{m}_{\widetilde{q}}{^p} \, \right] \; + \, 3 \; g_3{^2} \; \phi_{\text{ili2}} + \, 9 \; g_3{^2} \; y_d{^{pi2}} \; \delta_{\text{ili4}} \right] \; \text{LF}_{2,\text{l},\text{0}} \left[ \, \widetilde{\mu} \, , \; \text{m}_{\widetilde{q}}{^p} \, \right] \; + \, 3 \; g_3{^2} \; \phi_{\text{ili4}} + \, 3 \; g_
                                                                                                                   \frac{1}{54} \ \overline{y_d}^{\text{pi3}} \ \left( {y_d}^{\text{pi4}} \ \left( -7 \ {g_1}^2 + 6 \ {g_3}^2 \right) \ \delta_{\text{ili2}} - 18 \ {g_3}^2 \ {y_d}^{\text{pi2}} \ \delta_{\text{ili4}} \right) \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] + \left( -7 \ {g_1}^2 + 6 \ {g_3}^2 \right) \ \delta_{\text{ili2}} - 18 \ {g_3}^2 \ {y_d}^{\text{pi2}} \ \delta_{\text{ili4}} \right) \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] + \left( -7 \ {g_1}^2 + 6 \ {g_3}^2 \right) \ \delta_{\text{ili2}} - 18 \ {g_3}^2 \ {y_d}^{\text{pi2}} \ \delta_{\text{ili4}} \right) \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] + \left( -7 \ {g_1}^2 + 6 \ {g_3}^2 \right) \ \delta_{\text{ili2}} - 18 \ {g_3}^2 \ {y_d}^{\text{pi2}} \ \delta_{\text{ili4}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{q}}^{-\tilde{p}} \right] \ \mathsf{LF_{3,1,-1}} \left[ \widetilde{\mu} \, , \ \mathfrak{m}_{\tilde{
                                                                                                                       \frac{\text{1}}{\text{54}} \; \overline{y_d}^{\text{pi3}} \; \left( y_d^{\text{pi4}} \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + 9 \; {g_3}^2 \; y_d^{\text{pi2}} \; \delta_{\text{ili4}} \right) \; \text{LF}_{4,\text{1,-2}} \left[ \widetilde{\mu} \, , \; \textbf{m}_q^{\text{-p}} \right] \; + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + 9 \; {g_3}^2 \; y_d^{\text{pi2}} \; \delta_{\text{ili4}} \right) \; \text{LF}_{4,\text{1,-2}} \left[ \widetilde{\mu} \, , \; \textbf{m}_q^{\text{-p}} \right] \; + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{ili2}} + \; \left( 2 \; {g_1}^2 - 3 \; {g_3}^2 \right) \; \delta_{\text{il
                                                                                                                       \frac{7}{24} \; \mathsf{g_3}^4 \; \mathsf{LF_{2,1,1,-1}} \big[ \mathsf{m_3}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i4}}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big] \; \delta_{\mathsf{i1i4}} \; \delta_{\mathsf{i2i3}} - \frac{1}{6} \; \mathsf{g_3}^4 \; \mathsf{m_3}^2 \; \mathsf{LF_{2,1,1,0}} \big[ \mathsf{m_3}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i4}}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big] \; \delta_{\mathsf{i1i4}} \; \delta_{\mathsf{i2i3}} + \frac{1}{6} \; \mathsf{g_3}^4 \; \mathsf{m_3}^2 \; \mathsf{LF_{2,1,1,0}} \big[ \mathsf{m_3}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i4}}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big] \; \delta_{\mathsf{i1i4}} \; \delta_{\mathsf{i2i3}} + \frac{1}{6} \; \mathsf{g_3}^4 \; \mathsf{m_3}^2 \; \mathsf{LF_{2,1,1,0}} \big[ \mathsf{m_3}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i4}}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big] \; \delta_{\mathsf{i1i4}} \; \delta_{\mathsf{i2i3}} + \frac{1}{6} \; \mathsf{g_3}^4 \; \mathsf{m_3}^2 \; \mathsf{LF_{2,1,1,0}} \big[ \mathsf{m_3}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i4}}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big] \; \delta_{\mathsf{i1i4}} \; \delta_{\mathsf{i2i3}} + \frac{1}{6} \; \mathsf{g_3}^4 \; \mathsf{m_3}^2 \; \mathsf{LF_{2,1,1,0}} \big[ \mathsf{m_3}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i4}}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big] \; \delta_{\mathsf{i1i4}} \; \delta_{\mathsf{i2i3}} + \frac{1}{6} \; \mathsf{g_3}^4 \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big[ \mathsf{m_3}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big] \; \delta_{\mathsf{i1i4}} \; \delta_{\mathsf{i2i3}} + \frac{1}{6} \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big[ \mathsf{m_3}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big] \; \delta_{\mathsf{i1i4}} \; \delta_{\mathsf{i2i3}} + \frac{1}{6} \; \mathsf{m_{\tilde{d}}} \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big[ \mathsf{m_{\tilde{d}}}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big] \; \delta_{\mathsf{i1i4}} \; \delta_{\mathsf{i2i3}} + \frac{1}{6} \; \mathsf{m_{\tilde{d}}} \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big[ \mathsf{m_{\tilde{d}}}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big] \; \delta_{\mathsf{i1i4}} \; \delta_{\mathsf{i2i3}} + \frac{1}{6} \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big[ \mathsf{m_{\tilde{d}}}, \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \big] \; \delta_{\mathsf{i1i4}} \; \delta_{\mathsf{i2i3}} + \frac{1}{6} \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \; \mathsf{m_{\tilde{d}}}^{\mathsf{i3}} \, \mathsf{m_{\tilde{d}}}^{\mathsf{i4}} \big] \; \delta_{\mathsf{i1i4}} \; \delta_{\mathsf{i
                                                                                                                       \frac{1}{4} \ \overline{y_d}^{pi3} \ \overline{y_d}^{ri1} \ y_d^{pi4} \ y_d^{ri2} \ \mathsf{LF}_{2,1,1,-1} \big[ \widetilde{\mu} \, , \ \mathsf{m_{\tilde{q}}}^p \, , \ \mathsf{m_{\tilde{q}}}^r \big] - \frac{1}{54} \ g_1^2 \ g_3^2 \ \mathsf{LF}_{1,1,1,1,-1} \big[ \, \mathsf{m}_1 \, , \ \mathsf{m}_3 \, , \ \mathsf{m_{\tilde{d}}}^{i4} \, , \ \mathsf{m_{\tilde{d}}}^{i2} \big]
                                                                                                                                               \delta_{\texttt{i1i2}} \; \delta_{\texttt{i3i4}} \; - \; \tfrac{1}{27} \; \mathsf{m_1} \; \mathsf{m_3} \; \mathsf{g_1}^2 \; \mathsf{g_3}^2 \; \mathsf{LF_{1,1,1,1,0}} \big[ \, \mathsf{m_1}, \; \mathsf{m_3}, \; \mathsf{m_{\tilde{d}}}^{\texttt{i4}}, \; \mathsf{m_{\tilde{d}}}^{\texttt{i2}} \big] \; \delta_{\texttt{i1i2}} \; \delta_{\texttt{i3i4}} \; + \\ \frac{1}{27} \; \mathsf{m_1} \; \mathsf{m_3} \; \mathsf{g_1}^2 \; \mathsf{g_3}^2 \; \mathsf{LF_{1,1,1,1,0}} \big[ \; \mathsf{m_1}, \; \mathsf{m_3}, \; \mathsf{m_{\tilde{d}}}^{\texttt{i4}}, \; \mathsf{m_{\tilde{d}}}^{\texttt{i2}} \big] \; \delta_{\texttt{i1i2}} \; \delta_{\texttt{i3i4}} \; + \\ \frac{1}{27} \; \mathsf{m_1} \; \mathsf{m_2} \; \mathsf{m_2} \; \mathsf{m_3} \; \mathsf{m_3}
                                                                                                                       \frac{1}{18}\; {g_{1}}^2\; {g_{3}}^2\; \mathsf{LF}_{1,1,1,1,-1}\big[\, \mathsf{m}_{1},\; \mathsf{m}_{3},\; \mathsf{m}_{\tilde{\mathsf{d}}}^{\;\;i4},\; \mathsf{m}_{\tilde{\mathsf{d}}}^{\;\;i3}\,\big]\; \delta_{\mathsf{i}1\mathsf{i}4}\; \delta_{\mathsf{i}2\mathsf{i}3}\; +
                                                                                                                       \frac{1}{9}\;\mathsf{m_1}\;\mathsf{m_3}\;\mathsf{g_1}^2\;\mathsf{g_3}^2\;\mathsf{LF_{1,1,1,1,0}}\big[\,\mathsf{m_1},\,\mathsf{m_3},\,\mathsf{m_{\tilde{d}}}^{i\,4},\,\mathsf{m_{\tilde{d}}}^{i\,3}\,\big]\;\delta_{i\,1\,i\,4}\;\delta_{i\,2\,i\,3}\big)
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