```
\frac{1}{16\,\pi^{2}}\,\left(\frac{1}{144}\,\,S_{\Upsilon}\,\frac{1}{m_{\text{p}}^{2}}\,\,\left(18\,\,y_{u}^{\,\,pi2}\,\,\left(\overline{y_{d}}^{pr}\,\,y_{d}^{\,\,i1r}\,\,\left(-2\,\,C_{H^{2}}\,\,c_{\Upsilon}^{\,\,2}\,+\,m_{_{\overline{\!{}}}}^{2}\,\,\left(1+\,s_{\Upsilon}^{\,\,2}\right)\,\right)\,+\,3\,\,m_{_{\overline{\!{}}}}^{2}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\left(1+\,c_{\Upsilon}^{\,\,2}\right)\,\right)\,+\,3\,\,m_{_{\overline{\!{}}}}^{2}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\left(1+\,c_{\Upsilon}^{\,\,2}\right)\,\right)\,+\,3\,\,m_{_{\overline{\!{}}}}^{2}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\left(1+\,c_{\Upsilon}^{\,\,2}\right)\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\left(1+\,c_{\Upsilon}^{\,\,2}\right)\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\left(1+\,c_{\Upsilon}^{\,\,2}\right)\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,\overline{y_{u}}^{pr}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,i1r}\,\,y_{u}^{\,\,
                                                                                                                                                                                                                                           y_u^{\text{ili2}} \, \left( \text{M}_{\text{\tiny $\Phi$}}^{2} \, \left( 96 \, \text{g}_{\text{3}}^{\, 2} + 27 \, \text{g}_{\text{2}}^{\, 2} \, \left( 1 + 2 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 2 \, \text{s}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, + \, \text{g}_{\text{1}}^{\, 2} \, \left( 17 + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{s}_{\text{\tiny $\gamma$}}^{\, 2} \right) \right) \, - \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, + \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, - \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, + \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, - \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, + \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, - \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, - \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, - \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, - \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, - \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, - \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, - \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, - \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, - \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, + \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, + \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, + \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, + \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $\gamma$}}^{\, 2} \right) \, \right) \, + \, \left( \text{c}_{\text{\tiny $\gamma$}}^{\, 2} + 18 \, \text{c}_{\text{\tiny $
                                                                                                                                                                                                                                                                                                                                                                              \frac{3}{2} \; s_{2\,\gamma} \; c_{\gamma} \; \frac{1}{m_{_{0}}{}^{4}} \; \overline{y_{d}}^{pr} \; y_{d}{}^{pr} \; y_{u}{}^{i1i2} \; \left( C_{H^{2}} - m_{_{\overline{0}}}{}^{2} \right) \; LF_{1,0} \left[ m_{_{\overline{d}}}{}^{r} \right] \; + \; \frac{1}{2} \; \sum_{p} s_{2\,\gamma} \; c_{\gamma} \; g_{1}{}^{2} \; \frac{1}{m_{_{0}}{}^{4}} \; y_{u}{}^{i1i2} \; \left( c_{H^{2}} - m_{_{\overline{0}}}{}^{2} \right) \; LF_{1,0} \left[ m_{_{\overline{d}}}{}^{r} \right] \; + \; \frac{1}{2} \; \sum_{p} s_{2\,\gamma} \; c_{\gamma} \; g_{1}{}^{2} \; \frac{1}{m_{_{0}}{}^{4}} \; y_{u}{}^{i1i2} \; \left( c_{H^{2}} - m_{_{\overline{0}}}{}^{2} \right) \; LF_{1,0} \left[ m_{_{\overline{d}}}{}^{r} \right] \; + \; \frac{1}{2} \; \sum_{p} s_{2\,\gamma} \; c_{\gamma} \; g_{1}{}^{2} \; \frac{1}{m_{_{0}}{}^{4}} \; y_{u}{}^{i1i2} \; \left( c_{H^{2}} - m_{_{\overline{0}}}{}^{2} \right) \; LF_{1,0} \left[ m_{_{\overline{d}}}{}^{r} \right] \; + \; \frac{1}{2} \; \sum_{p} s_{2\,\gamma} \; c_{\gamma} \; g_{1}{}^{2} \; \frac{1}{m_{_{0}}{}^{4}} \; y_{u}{}^{i1i2} \; \left( c_{H^{2}} - m_{_{\overline{0}}}{}^{2} \right) \; LF_{1,0} \left[ m_{_{\overline{d}}}{}^{r} \right] \; + \; \frac{1}{2} \; \sum_{p} s_{2\,\gamma} \; c_{\gamma} \; g_{1}{}^{2} \; \frac{1}{m_{_{0}}{}^{4}} \; y_{u}{}^{i1i2} \; \left( c_{H^{2}} - m_{_{\overline{0}}}{}^{2} \right) \; C_{1} \; \left( c_{H^{2}} - m_{_{\overline{0}}}{}^{2} \right) \; C_{2} \; C_{2
                                                                                                                                                            \left(-\,C_{H^{2}}\,+\,m_{\bar{\oplus}}^{\,2}\,\right)\,\,L\,F_{\text{1,0}}\left[\,m_{\bar{e}}^{\,\,p}\,\right]\,+\,\frac{1}{2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,\frac{1}{m_{_{0}}^{\,4}}\,\,\overline{y_{e}}^{pr}\,\,y_{e}^{\,\,pr}\,\,y_{u}^{\,\,ili2}\,\,\left(\,C_{H^{2}}\,-\,m_{\bar{\oplus}}^{\,\,2}\,\right)\,\,L\,F_{\text{1,0}}\left[\,m_{\bar{e}}^{\,\,r}\,\right]\,+\,\frac{1}{2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,\frac{1}{m_{_{0}}^{\,\,4}}\,\,\overline{y_{e}}^{pr}\,\,y_{e}^{\,\,pr}\,\,y_{u}^{\,\,ili2}\,\,\left(\,C_{H^{2}}\,-\,m_{\bar{\oplus}}^{\,\,2}\,\right)\,\,L\,F_{\text{1,0}}\left[\,m_{\bar{e}}^{\,\,r}\,\right]\,+\,\frac{1}{2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,\frac{1}{m_{_{0}}^{\,\,4}}\,\,\overline{y_{e}}^{pr}\,\,y_{u}^{\,\,ili2}\,\,\left(\,C_{H^{2}}\,-\,m_{\bar{\oplus}}^{\,\,2}\,\right)\,\,L\,F_{\text{1,0}}\left[\,m_{\bar{e}}^{\,\,r}\,\right]\,+\,\frac{1}{2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,c_{\gamma}\,\,m_{_{0}}^{\,\,2}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma}\,\,s_{2\,\gamma
                                                                                                                       \frac{1}{2} \; s_{2 \, \gamma} \; c_{\gamma} \; \frac{1}{m_{_{0}}^{\, 4}} \; y_{u}^{\, \text{iii}} \; \left( C_{H^{2}} - m_{_{\overline{0}}}^{\, 2} \right) \; \left( \overline{y_{e}}^{pr} \; y_{e}^{\, pr} \; + \sum_{p} g_{1}^{\, 2} \right) \; \mathsf{LF}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}}}^{\, \, p} \right] \; + \; \mathcal{F}_{1,0} \left[ m_{_{\overline{1}
                                                                                                                  \frac{1}{2} \; s_{2 \; \text{Y}} \; c_{\text{Y}} \; \frac{1}{m_{\text{D}}^{4}} \; y_{u} \\ ^{\text{1112}} \; \left( - \, C_{\text{H}^{2}} \, + \, m_{\text{D}}^{\; 2} \right) \; \left( - \, 3 \; \overline{y_{d}}^{\text{pr}} \; y_{d}^{\text{pr}} \, + \, 3 \; \overline{y_{u}}^{\text{pr}} \; y_{u}^{\text{pr}} \, + \sum_{p} g_{1}^{\; 2} \right) \; LF_{\text{1,0}} \left[ m_{\tilde{q}}^{-\tilde{p}} \right] \; + \, 3 \; \overline{y_{u}}^{\text{pr}} \; y_{u}^{\text{pr}} \; + \, \sum_{p} g_{1}^{\; 2} \left( - \, C_{\text{H}^{2}} \, + \, m_{\tilde{q}}^{-\tilde{p}} \right) \; + \, 3 \; \overline{y_{u}}^{\text{pr}} \; + \, 3 \; \overline{y_{u}}^{\text{pr}} \; + \, \sum_{p} g_{1}^{\; 2} \left( - \, C_{\text{H}^{2}} \, + \, m_{\tilde{q}}^{-\tilde{p}} \right) \; + \, 3 \; \overline{y_{u}}^{\text{pr}} \; + \, 3 \; \overline{y_{u}}^{\text{
                                                                                                       \sum\nolimits_{p} \, {{s_{2}}_{\text{Y}}} \, {{c_{\text{Y}}}} \, {{g_{1}}^{2}} \, \frac{1}{{{m_{_{0}}}^{4}}} \, {{y_{u}}^{\text{ili2}}} \, \left( {{C_{{H^{2}}}} - {m_{_{\overline{0}}}}^{2}} \right) \, L{F_{1,0}}{\left[ {{m_{\widetilde{u}}}^{p}} \right]} \, + \\
                                                                                                                  \frac{3}{2} \; s_{2\, \text{Y}} \; c_{\text{Y}} \; \frac{1}{m_{\text{D}}^{\, 4}} \; \overline{y_u}^{\text{pr}} \; y_u^{\, \text{pr}} \; y_u^{\, \text{ili2}} \; \left( -\, C_{\text{H}^2} \, + \, m_{\text{D}}^{\, 2} \right) \; \text{LF}_{\text{1,0}} \left[ \, m_{\tilde{u}}^{\, \, r} \, \right] \; + \; \left( -\, m_{\tilde{u}}^{\, \, 2} \, m_{\tilde{u}}^{\, \, 
                                                                                                                       \frac{3}{8} \; \mathsf{S_{4}}_{\text{Y}} \; \mathsf{C_{\text{Y}}} \; \frac{1}{\mathsf{m_{\text{D}}}^4} \; \mathsf{y_u}^{\text{ili2}} \; \left( \mathsf{g_1}^2 + \mathsf{g_2}^2 \right) \; \left( - \, \mathsf{C_{H^2}} + \mathsf{m_{\text{D}}}^2 \right) \; \mathsf{LF_{1,0}} \left[ \, \mathsf{m_{\text{D}}} \, \right] \; - \; \mathsf{I} \;
                                                                                                                  \frac{1}{4} \; s_{\gamma} \; y_{u}^{\; \text{pi2}} \; \left( \overline{y_{d}}^{\; \text{pr}} \; y_{d}^{\; \text{ilr}} \; \left( 4 \; c_{\gamma}^{\; 2} + s_{\gamma}^{\; 2} \right) \; + \; 3 \; c_{\gamma}^{\; 2} \; \overline{y_{u}}^{\; \text{pr}} \; y_{u}^{\; \text{ilr}} \right) \; \mathsf{LF}_{1,1} [\, \mathsf{m}_{\scriptscriptstyle{\bar{\Phi}}} \,] \; - \; \mathsf{LF}_{1,1} [\, \mathsf{m}_{\scriptscriptstyle{\bar{\Phi}}
                                                                                                                            \frac{1}{2} \; \mathsf{S}_{\gamma} \; \mathsf{C}_{\mathsf{H}^{2}} \; \mathsf{c}_{\gamma}^{\; 2} \; \overline{\mathsf{y}_{\mathsf{d}}}^{\mathsf{pr}} \; \mathsf{y}_{\mathsf{d}}^{\; \mathsf{ilr}} \; \mathsf{y}_{\mathsf{u}}^{\; \mathsf{pi2}} \; \mathsf{LF}_{\mathsf{1},\mathsf{2}} \; [\, \mathsf{m}_{\scriptscriptstyle{\bar{\Phi}}} \,] \; - \; \frac{1}{36} \; \mathsf{S}_{\gamma} \; \mathsf{g}_{\mathsf{1}}^{\; 2} \; \mathsf{y}_{\mathsf{u}}^{\; \mathsf{ili2}} \; \mathsf{LF}_{\mathsf{1},\mathsf{1},\mathsf{9}} \left[\, \mathsf{m}_{\mathsf{1}} \,, \; \mathsf{m}_{\bar{\mathsf{q}}}^{\; \; \mathsf{il}}^{\; \mathsf{1}} \,\right] \; + \; \mathsf{m}_{\mathsf{q}}^{\; \mathsf{pr}} \; \mathsf{g}_{\mathsf{1}}^{\; \mathsf{2}} \; \mathsf{g}_
                                                                                                                                                                                 \left[ s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{2,1,-1} \left[ m_{1}, m_{\tilde{q}}^{-i1} \right] - \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{\tilde{u}}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{1}, m_{1}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, m_{1}, m_{1}, m_{1}^{i2} \right] + \frac{4}{9} s_{\gamma} g_{1}^{2} y_{u}^{i1i2} LF_{1,1,0} \left[ m_{1}, 
                                                                                                                                                                 \mathsf{s_{\gamma}} \; \mathsf{g_{1}}^{2} \; \mathsf{y_{u}}^{\text{ili2}} \; \mathsf{LF_{2,1,-1}} \big[ \, \mathsf{m_{1}}, \; \mathsf{m_{\tilde{u}}}^{\text{il}2} \, \big] \; + \; \mathsf{m_{1}} \; \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_{1}}^{2} \; \frac{1}{\mathsf{m_{0}}^{4}} \; \mathsf{y_{u}}^{\text{ili2}} \; \left( \mathsf{C_{H^{2}}} - \mathsf{m_{0}}^{2} \right) \; \left( \mathsf{c_{\gamma}}^{2} - \mathsf{s_{\gamma}}^{2} \right) \; \mathsf{LF_{1,1,0}} \left[ \, \mathsf{m_{1}}, \; \widetilde{\mu} \, \right] \; - \; \mathsf{m_{1}} \; \mathsf{m_{2}}^{2} \; \mathsf{m_{2}}^{2} \; \mathsf{m_{2}}^{2} \; \mathsf{m_{3}}^{2} \; \mathsf{m_{2}}^{2} \; \mathsf{m_{3}}^{2} \; \mathsf{m_{3}
                                                                                                                  \frac{3}{4} \; \mathsf{s_{Y}} \; \mathsf{g_{2}}^{2} \; \mathsf{y_{u}}^{\text{ili2}} \; \mathsf{LF_{1,1,0}} \big[ \, \mathsf{m_{2}} \text{, } \, \mathsf{m_{\tilde{q}}}^{\text{il}} \big] \; + \; \frac{3}{8} \; \mathsf{s_{Y}} \; \mathsf{g_{2}}^{2} \; \mathsf{y_{u}}^{\text{ili2}} \; \mathsf{LF_{2,1,-1}} \big[ \, \mathsf{m_{2}} \text{, } \, \mathsf{m_{\tilde{q}}}^{\text{il}} \big] \; + \; \frac{3}{8} \; \mathsf{s_{Y}} \; \mathsf{g_{2}}^{2} \; \mathsf{y_{u}}^{\text{ili2}} \; \mathsf{LF_{2,1,-1}} \big[ \, \mathsf{m_{2}} \text{, } \, \mathsf{m_{\tilde{q}}}^{\text{il}} \big] \; + \; \frac{3}{8} \; \mathsf{m_{\tilde{q}}}^{\text{il}} \; \mathsf{m_{\tilde{q}}}^{\text{il}} \, \mathsf{m_{\tilde{q}}}^{\text{i
                                                                                                       3\; m_2\; \widetilde{\mu}\; c_{\gamma}\; g_2^2\; \frac{1}{m_0^4}\; y_u^{\; i\, 1\, i\, 2}\; \left( C_{H^2} - m_{\bar{\Phi}}^{\; 2} \right) \; \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; - \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; + \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; + \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; + \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; + \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; + \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; + \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, m_2 \, , \; \widetilde{\mu} \, \right] \; + \, \left( c_{\gamma}^{\; 2} - s_{\gamma}^{\; 2} \right) \; LF_{1,1,0} \left[ \, 
                                                                                                                  \frac{4}{3}\; s_{\gamma}\; g_{3}^{\;2}\; y_{u}^{\;i1i2}\; LF_{1,1,0}\big[\,m_{3}\,,\,m_{\tilde{q}}^{\;i1}\big] \; + \; \frac{2}{3}\; s_{\gamma}\; g_{3}^{\;2}\; y_{u}^{\;i1i2}\; LF_{2,1,-1}\big[\,m_{3}\,,\,m_{\tilde{q}}^{\;i1}\big] \; - \; \frac{1}{3}\; s_{\gamma}\; g_{3}^{\;2}\; y_{u}^{\;2}\; g_{\alpha}^{\;2}\; y_{\alpha}^{\;2}\; g_{\alpha}^{\;2}\; y_{\alpha}^{\;2}\; g_{\alpha}^{\;2}\; g
                                                                                                                            \frac{4}{3} \, \, {\rm s_{\gamma}} \, {\rm g_3}^2 \, {\rm y_u}^{\rm ili2} \, \, {\rm LF_{1,1,0}} \big[ \, {\rm m_3} \, , \, {\rm m_{\tilde{u}}}^{\rm i2} \big] \, + \frac{2}{3} \, \, {\rm s_{\gamma}} \, {\rm g_3}^2 \, {\rm y_u}^{\rm ili2} \, \, {\rm LF_{2,1,-1}} \big[ \, {\rm m_3} \, , \, {\rm m_{\tilde{u}}}^{\rm i2} \big] \, + \frac{2}{3} \, {\rm m_{\tilde{u}}}^{\rm i2} \, \, {\rm m_{\tilde{u}}}^{\rm i2} \,
                                                                                                       3\;c_{\gamma}\;\tfrac{1}{m_{g}^{4}}\;y_{u}^{\;\textrm{ili2}}\;\left(C_{H^{2}}-m_{\underline{\sigma}}^{\;2}\right)\;\left(c_{\gamma}\;\overline{a_{d}}^{pr}-s_{\gamma}\;\widetilde{\mu}\;\overline{y_{d}}^{pr}\right)\;\left(s_{\gamma}\;a_{d}^{pr}+\widetilde{\mu}\;c_{\gamma}\;y_{d}^{\;pr}\right)\;LF_{\textrm{1,1,0}}\left[m_{\bar{d}}^{\;r},\;m_{\bar{q}}^{\;p}\right]-\left(m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}\right)\left(m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}\right)\left(m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}\right)\left(m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{d}}^{\;p}+m_{\bar{
                                                                                                                       \frac{1}{2} \, s_{\gamma} \, \overline{y_d}^{pr} \, y_d^{i1r} \, y_u^{pi2} \, LF_{1,1,0} \big[ m_{\tilde{d}}^{-r}, \, \widetilde{\mu} \big] +
                                                                                                            c_{\gamma} \, \frac{1}{m_{-}^{4}} \, y_{u}^{\, \text{ili2}} \, \left( C_{H^{2}} - m_{\bar{\Phi}}^{\, 2} \right) \, \left( c_{\gamma} \, \overline{a_{e}}^{pr} - s_{\gamma} \, \widetilde{\mu} \, \overline{y_{e}}^{pr} \right) \, \left( s_{\gamma} \, a_{e}^{\, pr} + \widetilde{\mu} \, c_{\gamma} \, y_{e}^{\, pr} \right) \, LF_{1,1,0} \left[ m_{\tilde{e}}^{\, r} \, , \, m_{\tilde{l}}^{\, p} \right] - m_{\tilde{e}}^{\, p} \, \left( m_{\tilde{e}}^{\, r} \, , \, m_{\tilde{e}}^{\, p} \right) \, \left( m_{\tilde{e}}^{\, r} \, , \, m_{\tilde{e}}^{\, p} \right) \, \left( m_{\tilde{e}}^{\, r} \, , \, m_{\tilde{e}}^{\, p} \right) \, \left( m_{\tilde{e}}^{\, r} \, , \, m_{\tilde{e}}^{\, p} \right) \, \left( m_{\tilde{e}}^{\, r} \, , \, m_{\tilde{e}}^{\, p} \right) \, \left( m_{\tilde{e}}^{\, p} \, , \, m_{\tilde{e}}^{\, p} \right) \, \left( m_{\tilde{e}}^{\, p} \, , \, m_{\tilde{e}}^{\, p} \right) \, \left( m_{\tilde{e}}^{\, p} \, , \, m_{\tilde{e}}^{\, p} \right) \, \left( m_{\tilde{e}}^{\, p} \, , \, m_{\tilde{e}}^{\, p} \right) \, \left( m_{\tilde{e}}^{\, p} \, , \, m_{\tilde{e}}^{\, p} \, , \, m_{\tilde{e}}^{\, p} \right) \, \left( m_{\tilde{e}}^{\, p} \, , \, m_{\tilde{e}}^{\, p} \, , \, m_{\tilde{e}}^{\, p} \, , \, m_{\tilde{e}}^{\, p} \right) \, \left( m_{\tilde{e}}^{\, p} \, , \, m_{
                                                                                                                       \frac{1}{2}\ \frac{1}{m_{_{0}}{^{2}}}\ y_{u}{^{\text{iii2}}}\ \left(c_{_{Y}}\ \overline{a_{e}}{^{pr}}\ -\ s_{_{Y}}\ \widetilde{\mu}\ \overline{y_{e}}{^{pr}}\right)\ \left(s_{_{Y}}\ c_{_{Y}}\ a_{e}{^{pr}}\ \left(2\ C_{H^{2}}\ -\ m_{_{\overline{\oplus}}}{^{2}}\right)\ +\ \widetilde{\mu}\ y_{e}{^{pr}}\ \left(2\ C_{H^{2}}\ c_{_{Y}}{^{2}}\ +\ m_{_{\overline{\oplus}}}{^{2}}\ s_{_{Y}}{^{2}}\right)\right)
                                                                                                                                                 \text{LF}_{2,\textbf{1},\textbf{0}}\left[\,\textbf{m}_{\tilde{\textbf{l}}}^{\,\,\textbf{p}}\,,\,\,\textbf{m}_{\tilde{\textbf{e}}}^{\,\,\textbf{r}}\,\right]\,+\,\frac{1}{2}\,\,\frac{1}{m_{\text{o}}^{\,\,2}}\,\,y_{\text{u}}^{\,\,\textbf{i}\,\textbf{1}\,\textbf{i}\,\textbf{2}}\,\,\left(\,c_{\text{y}}\,\,\overline{\textbf{a}_{\text{e}}}^{\,\,\text{pr}}\,-\,s_{\text{y}}\,\,\widetilde{\mu}\,\,\overline{\textbf{y}_{\text{e}}}^{\,\,\text{pr}}\,\right)
                                                                                                                                                            \left( s_{\gamma} \; c_{\gamma} \; a_{e}^{\; pr} \; \left( 2 \; C_{H^{2}} - m_{\bar{\text{\tiny $\Phi$}}}^{\; 2} \right) \; + \; \widetilde{\mu} \; y_{e}^{\; pr} \; \left( 2 \; C_{H^{2}} \; c_{\gamma}^{\; 2} + m_{\bar{\text{\tiny $\Phi$}}}^{\; 2} \; s_{\gamma}^{\; 2} \right) \right) \; LF_{3,1,-1} \left[ \; m_{\tilde{\text{\tiny $1$}}}^{\; p} \; , \; m_{\tilde{\text{\tiny $e$}}}^{\; r} \; \right] \; + \; \widetilde{\mu} \; y_{e}^{\; pr} \; \left( 2 \; C_{H^{2}} \; c_{\gamma}^{\; 2} + m_{\bar{\text{\tiny $\Phi$}}}^{\; 2} \; s_{\gamma}^{\; 2} \right) \right) \; LF_{3,1,-1} \left[ \; m_{\tilde{\text{\tiny $1$}}}^{\; p} \; , \; m_{\tilde{\text{\tiny $e$}}}^{\; r} \; \right] \; + \; \widetilde{\mu} \; s_{\tilde{\text{\tiny $e$}}}^{\; r} \; + \; \widetilde{\mu} \; s_{\tilde{\text{\tiny $e$}}}^{\; r} \; \right] \; + \; \widetilde{\mu} \; s_{\tilde{\text{\tiny $e$}}}^{\; r} \; + \; \widetilde{\mu} \; s_{\tilde{\text{\tiny $e$}}}^{\; 
                                                                                                            s_{\gamma}\;C_{H^2}\;y_u^{\text{ili2}}\;\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[\mathfrak{m}_{\tilde{l}}^{\;p}\,,\,\mathfrak{m}_{\tilde{e}}^{\;r}\right]\;-\,c_{\gamma}\;a_e^{\,pr}\,+\,s_{\gamma}\;\widetilde{\mu}\;y_e^{\,pr}
                                                                                                            3 \, s_{\gamma} \, C_{H^2} \, y_u^{\,\, \text{ili2}} \, \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) \, LF_{4,1,-1} \left[ \, \boldsymbol{m}_{\tilde{1}}^{\,\, p} \,, \, \, \boldsymbol{m}_{\tilde{e}}^{\,\, r} \, \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, \boldsymbol{m}_{\tilde{e}}^{\,\, r} \, \boldsymbol{m}_{\tilde{e}}^{
                                                                                                       2\;s_{\gamma}\;C_{H^2}\;y_u^{\;\text{ili2}}\;\left(-\,c_{\gamma}\;\overline{a_e}^{pr}\,+\,s_{\gamma}\;\widetilde{\mu}\;\overline{y_e}^{pr}\right)\;\left(-\,c_{\gamma}\;a_e^{\;pr}\,+\,s_{\gamma}\;\widetilde{\mu}\;y_e^{\;pr}\right)\;LF_{5,1,-2}\left[\,m_{\tilde{l}}^{\;p}\,,\;m_{\tilde{e}}^{\;r}\,\right]\;-\,c_{\gamma}\;a_e^{\;pr}\,+\,s_{\gamma}\;\widetilde{\mu}\;y_e^{\;pr}\right)\;LF_{5,1,-2}\left[\,m_{\tilde{l}}^{\;p}\,,\;m_{\tilde{e}}^{\;r}\,\right]\;-\,c_{\gamma}\;a_e^{\;pr}\,+\,s_{\gamma}\;\widetilde{\mu}\;y_e^{\;pr}\right)\;LF_{5,1,-2}\left[\,m_{\tilde{l}}^{\;p}\,,\;m_{\tilde{e}}^{\;r}\,\right]\;-\,c_{\gamma}\;a_e^{\;pr}\,+\,s_{\gamma}\;\widetilde{\mu}\;y_e^{\;pr}\right]\;
                                                                                                                  \frac{3}{2}\ \frac{1}{m_{_{0}}^{2}}\ y_{u}^{\ \text{iii} 2}\ \left(c_{_{Y}}\ \overline{a_{d}}^{pr}\ -\ s_{_{Y}}\ \widetilde{\mu}\ \overline{y_{d}}^{pr}\right)\ \left(s_{_{Y}}\ c_{_{Y}}\ a_{d}^{pr}\ \left(2\ C_{H^{2}}\ -\ m_{_{\overline{\oplus}}}^{2}\right)\ +\ \widetilde{\mu}\ y_{d}^{pr}\ \left(2\ C_{H^{2}}\ c_{_{Y}}^{\ 2}\ +\ m_{_{\overline{\oplus}}}^{2}\ s_{_{Y}}^{\ 2}\right)\right)
                                                                                                                                                 \text{LF}_{2,1,0}\left[\text{m}_{\tilde{\textbf{q}}}^{\text{p}},\text{m}_{\tilde{\textbf{d}}}^{\text{r}}\right] + \frac{3}{2}\;\frac{1}{\text{m}_{0}^{2}}\;y_{u}^{\text{ili2}}\;\left(c_{\gamma}\;\overline{a_{d}}^{\text{pr}} - s_{\gamma}\;\widetilde{\mu}\;\overline{y_{d}}^{\text{pr}}\right)
                                                                                                                                                            \left(\,s_{\gamma}\;c_{\gamma}\;a_{d}^{\;pr}\;\left(\,2\;C_{H^{2}}\,-\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;2}\,\right)\,+\,\widetilde{\mu}\;y_{d}^{\;pr}\;\left(\,2\;C_{H^{2}}\;c_{\gamma}^{\,\;2}\,+\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;2}\;s_{\gamma}^{\,\;2}\,\right)\,\right)\;LF_{3,1,-1}\big[\,m_{_{\bar{\!\bm{\theta}}}}^{\;\;p}\,,\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;r}\,\big]\,+\,\widetilde{\mu}^{\;\;p}\,\left(\,2\;C_{H^{2}}^{\;\;p}\,c_{\gamma}^{\,\;2}\,+\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;2}\,s_{\gamma}^{\,\;2}\,\right)\,\left(\,s_{3,1,-1}^{\,\;q}\,\left[\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;r}\,\right]\,+\,\widetilde{\mu}^{\;\;p}\,\left(\,s_{3,1}^{\,\;p}\,,\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\!\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\;p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{\theta}}}}^{\,p}\,,\,m_{_{\bar{\bm{
                                                                                                            3 \, s_{\gamma} \, C_{H^2} \, y_u^{\,\, \text{ili2}} \, \left( - \, c_{\gamma} \, \overline{a_d}^{\text{pr}} + \, s_{\gamma} \, \widetilde{\mu} \, \overline{y_d}^{\text{pr}} \right) \, \left( - \, c_{\gamma} \, a_d^{\,\, \text{pr}} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\,\, \text{pr}} \right) \, LF_{3,1,0} \left[ \, m_{\widetilde{a}}^{\,\, \text{p}} \, , \, \, m_{\widetilde{d}}^{\,\, \text{r}} \, \right] \, - \, c_{\gamma} \, a_d^{\,\, \text{pr}} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\,\, \text{pr}} \right] \, LF_{3,1,0} \left[ \, m_{\widetilde{a}}^{\,\, \text{p}} \, , \, \, m_{\widetilde{d}}^{\,\, \text{r}} \, \right] \, - \, c_{\gamma} \, a_d^{\,\, \text{pr}} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\,\, \text{pr}} \right] \, .
                                                                                                            9 \, s_{\gamma} \, C_{H^2} \, y_u^{\, \text{ili2}} \, \left( - \, c_{\gamma} \, \overline{a_d}^{\text{pr}} + \, s_{\gamma} \, \widetilde{\mu} \, \overline{y_d}^{\text{pr}} \right) \, \left( - \, c_{\gamma} \, a_d^{\, \text{pr}} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \text{pr}} \right) \, LF_{4,1,-1} \left[ \, m_{\tilde{q}}^{\, \, p} \, , \, m_{\tilde{d}}^{\, \, r} \, \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} \right] \, + \, c_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{\gamma} \, \widetilde{\mu} \, y_d^{\, \, pr} + \, s_{
                                                                                                            6 \, s_{\scriptscriptstyle Y} \, C_{H^2} \, y_{\scriptscriptstyle U}{}^{\text{ili2}} \, \left( - \, c_{\scriptscriptstyle Y} \, \overline{a_{\scriptscriptstyle d}}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, \overline{y_{\scriptscriptstyle d}}{}^{\text{pr}} \right) \, \left( - \, c_{\scriptscriptstyle Y} \, a_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} \right) \, LF_{5,1,-2} \left[ \, m_{\widetilde{\mathsf{q}}}{}^{\, \mathsf{p}} \, , \, m_{\widetilde{\mathsf{d}}}{}^{\text{r}} \, \right] \, + \, c_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} \right] \, + \, c_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} \right] \, + \, c_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{pr}} + \, s_{\scriptscriptstyle Y} \, \widetilde{\mu} \, y_{\scriptscriptstyle d}{}^{\text{
                                                                                                       3\;c_{\gamma}\;\tfrac{1}{m_{_{\boldsymbol{0}}}^{4}}\;\boldsymbol{y}_{u}^{\;\textrm{ili2}}\;\left(\boldsymbol{C}_{H^{2}}-\boldsymbol{m}_{_{\boldsymbol{0}}}^{2}\right)\;\left(\boldsymbol{c}_{\gamma}\;\overline{\boldsymbol{a}_{u}}^{\textrm{pr}}+\boldsymbol{s}_{\gamma}\;\widetilde{\boldsymbol{\mu}}\;\overline{\boldsymbol{y}_{u}}^{\textrm{pr}}\right)\;\left(-\,\boldsymbol{s}_{\gamma}\;\boldsymbol{a}_{u}^{\;\textrm{pr}}+\widetilde{\boldsymbol{\mu}}\;\boldsymbol{c}_{\gamma}\;\boldsymbol{y}_{u}^{\;\textrm{pr}}\right)\;\mathsf{LF}_{1,1,\boldsymbol{0}}\left[\boldsymbol{m}_{\bar{q}}^{\;\textrm{p}}\,,\;\boldsymbol{m}_{\bar{u}}^{\;\textrm{r}}\right]\;-\boldsymbol{a}_{u}^{\;\textrm{pr}}\left[\boldsymbol{a}_{u}^{\;\textrm{pr}}+\boldsymbol{\mu}^{\;\textrm{pr}}\right]
                                                                                                            s_{\gamma}\,\overline{y_{u}}^{\text{pr}}\,y_{u}^{\,\text{pi2}}\,y_{u}^{\,\text{ilr}}\,LF_{1,1,0}\left[\,m_{\tilde{q}}^{\,\,}^{\,\,},\,\,\tilde{\mu}\,\right]\,+\,\frac{3}{2}\,\,\frac{1}{m_{\tilde{g}}^{\,2}}\,\,y_{u}^{\,\,\text{ili2}}
                                                                                                                                                            \left(\overline{a_{u}}^{pr} \left(2 \; C_{H^{2}} \; c_{\gamma}^{\; 2} + m_{\varpi}^{\; 2} \; s_{\gamma}^{\; 2}\right) \; + \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; \overline{y_{u}}^{pr} \; \left(2 \; C_{H^{2}} - m_{\varpi}^{\; 2}\right)\right) \; \left(s_{\gamma} \; a_{u}^{\; pr} - \widetilde{\mu} \; c_{\gamma} \; y_{u}^{\; pr}\right) \; LF_{2,1,0}\left[m_{\widetilde{u}}^{\; r}, \; m_{\widetilde{q}}^{\; r}\right] \; + \; c_{\gamma} \; \widetilde{\mu} \; \widetilde
                                                                                                                       \frac{3}{2} \; \frac{1}{m_{-}^2} \; y_u ^{\text{ili2}} \; \left( \overline{a_u}^{\text{pr}} \; \left( 2 \; C_{H^2} \; c_{\gamma}^{\; 2} + m_{\bar{\Phi}}^{\; 2} \; s_{\gamma}^{\; 2} \right) \; + \; s_{\gamma} \; \widetilde{\mu} \; c_{\gamma} \; \overline{y_u}^{\text{pr}} \; \left( 2 \; C_{H^2} - m_{\bar{\Phi}}^{\; 2} \right) \right)
                                                                                                                                                                 \left(-s_{\gamma}\;a_{u}^{\;pr}+\widetilde{\mu}\;c_{\gamma}\;y_{u}^{\;pr}\right)\;LF_{3,1,-1}\left\lceil\mathsf{m}_{\tilde{u}}^{\;r}\,,\;\mathsf{m}_{\tilde{q}}^{\;p}\right\rceil\;+
                                                                                                            9 \, \mathsf{s_{Y}} \, \mathsf{C_{H^{2}}} \, \mathsf{y_{u}}^{\mathtt{ili2}} \, \left( \mathsf{s_{Y}} \, \overline{\mathsf{a_{u}}}^{\mathtt{pr}} - \widetilde{\mu} \, \mathsf{c_{Y}} \, \overline{\mathsf{y_{u}}}^{\mathtt{pr}} \right) \, \left( \mathsf{s_{Y}} \, \mathsf{a_{u}}^{\mathtt{pr}} - \widetilde{\mu} \, \mathsf{c_{Y}} \, \mathsf{y_{u}}^{\mathtt{pr}} \right) \, \mathsf{LF_{4,1,-1}} \big[ \, \mathsf{m_{\tilde{u}}}^{\mathtt{r}} \, , \, \, \mathsf{m_{\tilde{a}}}^{\mathtt{p}} \big] \, + \, \mathsf{m_{\tilde{a}}}^{\mathtt{pr}} \, + \, \mathsf{m_{\tilde{a}}}^{\mathtt{pr}} \, , \, \, \mathsf{m_{\tilde{a}}}^{\mathtt{pr}} \, + \, \mathsf{m_{\tilde{a}}}^{\mathtt{pr}} \, + \, \mathsf{m_{\tilde{a}}}^{\mathtt{pr}} \, , \, \, \mathsf{m_{\tilde{a}}}^{\mathtt{pr}} \, + \, \mathsf{m_{\tilde{a}}}^{\mathtt{pr}} 
                                                                                                            6 \, \mathsf{s_{\scriptscriptstyle Y}} \, \mathsf{C}_{\mathsf{H}^2} \, \mathsf{y_u}^{\mathsf{ili2}} \, \left( \mathsf{s_{\scriptscriptstyle Y}} \, \overline{\mathsf{a_u}}^{\mathsf{pr}} - \widetilde{\mu} \, \mathsf{c_{\scriptscriptstyle Y}} \, \overline{\mathsf{y_u}}^{\mathsf{pr}} \right) \, \left( \mathsf{s_{\scriptscriptstyle Y}} \, \mathsf{a_u}^{\mathsf{pr}} - \widetilde{\mu} \, \mathsf{c_{\scriptscriptstyle Y}} \, \mathsf{y_u}^{\mathsf{pr}} \right) \, \mathsf{LF_{5,1,-2}} \left[ \mathsf{m_{\tilde{\mathsf{u}}}}^{\mathsf{r}} \, , \, \mathsf{m_{\tilde{\mathsf{q}}}}^{\mathsf{p}} \right] - \widetilde{\mathsf{m_{\mathsf{u}}}}^{\mathsf{pr}} \, , \, \mathsf{m_{\mathsf{q}}}^{\mathsf{pr}} \right] \, .
                                                                                                                       \frac{1}{2} \; \mathsf{S}_{\gamma} \; \overline{\mathsf{y_u}}^{\mathsf{pr}} \; \mathsf{y_u}^{\mathsf{pi2}} \; \mathsf{y_u}^{\mathsf{i1r}} \; \mathsf{LF_{1,1,0}} \big[ \, \mathsf{m_{\tilde{u}}}^{\mathsf{r}} \, , \; \widetilde{\mu} \, \big] \; - \; \frac{3}{4} \; \mathsf{S}_{\gamma} \; \mathsf{g_1}^2 \; \mathsf{y_u}^{\mathsf{i1i2}} \; \mathsf{LF_{2,1,-1}} \big[ \, \widetilde{\mu} \, , \; \mathsf{m_1} \big] \; - \; \mathsf{m_1} \; \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^2 \; \frac{1}{\mathsf{m_s}^2} \; \mathsf{m_{\tilde{u}}}^2 \; \mathsf{m_{\tilde{u}}
                                                                                                                                                 \mathsf{y_u^{i1i2}} \, \left( \mathsf{C_{H^2}} \, \, \mathsf{c_{\gamma}}^2 \, + \, \mathsf{s_{\gamma}}^2 \, \left( - \, \mathsf{C_{H^2}} \, + \, \mathsf{m_{\bar{\oplus}}}^2 \right) \right) \, \, \mathsf{LF_{2,1,0}} \, [\, \widetilde{\mu} \, , \, \, \mathsf{m_1} \, ] \, + \, \frac{1}{2} \, \, \mathsf{s_{\gamma}} \, \, \mathsf{g_1}^2 \, \, \mathsf{y_u}^{i1i2} \, \, \mathsf{LF_{3,1,-2}} \, [\, \widetilde{\mu} \, , \, \, \mathsf{m_1} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_1} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_2} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \, \frac{1}{2} \, \, \mathsf{m_3} \, \, \mathsf{m_3} \, ] \, + \,
                                                                                                            2\;\mathsf{m_1}\;\mathsf{C_{H^2}}\;\tilde{\mu}\;\mathsf{c_{\gamma}}\;\mathsf{g_1}^2\;\mathsf{s_{\gamma}}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{3,1,0}}\;[\;\tilde{\mu}\;,\;\mathsf{m_1}\;]\;+\;4\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_1}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{4,1,-2}}\;[\;\tilde{\mu}\;,\;\mathsf{m_1}\;]\;+\;4\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_1}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{4,1,-2}}\;[\;\tilde{\mu}\;,\;\mathsf{m_1}\;]\;+\;4\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_1}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{4,1,-2}}\;[\;\tilde{\mu}\;,\;\mathsf{m_1}\;]\;+\;4\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_1}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{4,1,-2}}\;[\;\tilde{\mu}\;,\;\mathsf{m_1}\;]\;+\;4\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_1}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{4,1,-2}}\;[\;\tilde{\mu}\;,\;\mathsf{m_1}\;]\;+\;4\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_1}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{4,1,-2}}\;[\;\tilde{\mu}\;,\;\mathsf{m_1}\;]\;+\;4\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}
                                                                                                            6 \; \mathsf{m_1} \; \mathsf{C_{H^2}} \; \widetilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_1}^2 \; \mathsf{s_{\gamma}}^2 \; \mathsf{y_u}^{\mathsf{ili2}} \; \mathsf{LF_{4,1,-1}} [\, \widetilde{\mu} \,, \, \mathsf{m_1} \,] \; - 2 \; \mathsf{s_{\gamma}} \; \mathsf{C_{H^2}} \; \mathsf{g_1}^2 \; \mathsf{y_u}^{\mathsf{ili2}} \; \mathsf{LF_{5,1,-3}} [\, \widetilde{\mu} \,, \, \mathsf{m_1} \,] \; - 2 \; \mathsf{s_{\gamma}} \; \mathsf{C_{H^2}} \; \mathsf{g_1}^2 \; \mathsf{y_u}^{\mathsf{ili2}} \; \mathsf{LF_{5,1,-3}} [\, \widetilde{\mu} \,, \, \mathsf{m_1} \,] \; - 2 \; \mathsf{s_{\gamma}} \; \mathsf{C_{H^2}} \; \mathsf{g_1}^2 \; \mathsf{y_u}^{\mathsf{ili2}} \; \mathsf{LF_{5,1,-3}} [\, \widetilde{\mu} \,, \, \, \mathsf{m_1} \,] \; - 2 \; \mathsf{s_{\gamma}} \; \mathsf{C_{H^2}} \; \mathsf{g_1}^2 \; \mathsf
                                                                                                            4\; m_1\; C_{H^2}\; \tilde{\mu}\; c_{\gamma}\; g_1{}^2\; s_{\gamma}{}^2\; y_u^{\; \text{ili2}}\; LF_{5,1,-2}\left[\,\tilde{\mu}\,,\; m_1\,\right] \; -\frac{9}{4}\; s_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; y_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; x_u^{\; \text{ili2}}\; LF_{2,1,-1}\left[\,\tilde{\mu}\,,\; m_2\,\right] \; -3\; m_2\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; x_u^{\; \text{ili2}}\; LF_{2,1
                                                                                                                                                                 \frac{1}{m_{_{0}}^{2}}\;y_{u}^{\text{ili2}}\;\left(\mathsf{C}_{\mathsf{H}^{2}}\;\mathsf{c}_{\gamma}^{\;2}\;+\;\mathsf{s}_{\gamma}^{\;2}\;\left(\;-\;\mathsf{C}_{\mathsf{H}^{2}}\;+\;\mathsf{m}_{_{\overline{\!\mathfrak{D}}}}^{\;2}\;\right)\;\right)\;\mathsf{LF}_{2,1,0}\left[\,\widetilde{\mu}\,,\;\mathsf{m}_{2}\,\right]\;+\;\frac{3}{2}\;\mathsf{s}_{\gamma}\;\mathsf{g}_{2}^{\;2}\;y_{u}^{\text{ili2}}\;\mathsf{LF}_{3,1,-2}\left[\,\widetilde{\mu}\,,\;\mathsf{m}_{2}\,\right]\;+\;\frac{3}{2}\;\mathsf{s}_{\gamma}\;\mathsf{g}_{2}^{\;2}\;\mathsf{y}_{u}^{\text{ili2}}\;\mathsf{LF}_{3,1,-2}\left[\,\widetilde{\mu}\,,\;\mathsf{m}_{2}\,\right]\;+\;\frac{3}{2}\;\mathsf{s}_{\gamma}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf{g}_{2}^{\;2}\;\mathsf
                                                                                                                                                                                                                                                                                                                                                              _{2}^{2} y<sub>u</sub><sup>i1i2</sup> \left(-2 s<sub>Y</sub> C<sub>H<sup>2</sup></sub> m<sub>\Phi</sub><sup>2</sup> + m<sub>2</sub> \widetilde{\mu} c<sub>Y</sub> \left(C_{H^{2}} c<sub>Y</sub><sup>2</sup> + s<sub>Y</sub><sup>2</sup> \left(-C_{H^{2}} + m<sub>\Phi</sub><sup>2</sup>\right)\right) LF<sub>3,1,-1</sub> \left[\widetilde{\mu}, m<sub>2</sub>\right] -
                                                                                                            6 \; \mathsf{m_2} \; \mathsf{C_{H^2}} \; \tilde{\mu} \; \mathsf{c_{\gamma}} \; \mathsf{g_2}^2 \; \mathsf{s_{\gamma}}^2 \; \mathsf{y_u}^{\mathsf{ili2}} \; \mathsf{LF_{3,1,0}} \left[ \tilde{\mu} \; , \; \mathsf{m_2} \right] \; + \; \mathsf{12} \; \mathsf{s_{\gamma}} \; \mathsf{C_{H^2}} \; \mathsf{g_2}^2 \; \mathsf{y_u}^{\mathsf{ili2}} \; \mathsf{LF_{4,1,-2}} \left[ \tilde{\mu} \; , \; \mathsf{m_2} \right] \; + \; \mathsf{12} \; \mathsf{s_{\gamma}} \; \mathsf{C_{H^2}} \; \mathsf{g_2}^2 \; \mathsf{y_u}^{\mathsf{ili2}} \; \mathsf{LF_{4,1,-2}} \left[ \tilde{\mu} \; , \; \mathsf{m_2} \right] \; + \; \mathsf{12} \; \mathsf{s_{\gamma}} \; \mathsf{C_{H^2}} \; \mathsf{g_2}^2 \; \mathsf{y_u}^{\mathsf{ili2}} \; \mathsf{LF_{4,1,-2}} \left[ \tilde{\mu} \; , \; \mathsf{m_2} \right] \; + \; \mathsf{12} \; \mathsf{g_2}^2 \; 
                                                                                                            18\;\mathsf{m_2}\;\mathsf{C_{H^2}}\;\tilde{\mu}\;\mathsf{c_{\gamma}}\;\mathsf{g_2}^2\;\mathsf{s_{\gamma}}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{4,1,-1}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{y_u}^{\mathsf{ili2}}\;\mathsf{LF_{5,1,-3}}[\;\tilde{\mu}\;,\;\mathsf{m_2}\;]\;-\;6\;\mathsf{s_{\gamma}}\;\mathsf{C_{H^2}}\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;
                                                                                                            12\; m_2\; C_{H^2}\; \tilde{\mu}\; c_{\gamma}\; g_2{}^2\; s_{\gamma}{}^2\; y_u{}^{\text{ili2}}\; LF_{5,1,-2}\left[\, \tilde{\mu}\, ,\; m_2\, \right] \; + \; \frac{1}{4}\; s_{\gamma}\; \overline{y_d}{}^{\text{pr}}\; y_d{}^{\text{ilr}}\; y_u{}^{\text{pi2}}\; LF_{2,1,-1}\left[\, \tilde{\mu}\, ,\; m_{\tilde{d}}^{-\, r}\, \right] \; + \; \frac{1}{4}\; s_{\gamma}\; \overline{y_d}{}^{\text{pr}}\; y_d{}^{\text{ilr}}\; y_u{}^{\text{pi2}}\; LF_{2,1,-1}\left[\, \tilde{\mu}\, ,\; m_{\tilde{d}}^{-\, r}\, \right] \; + \; \frac{1}{4}\; s_{\gamma}\; \overline{y_d}{}^{\text{pr}}\; y_d{}^{\text{ilr}}\; y_u{}^{\text{pi2}}\; LF_{2,1,-1}\left[\, \tilde{\mu}\, ,\; m_{\tilde{d}}^{-\, r}\, \right] \; + \; \frac{1}{4}\; s_{\gamma}\; \overline{y_d}{}^{\text{pr}}\; y_d{}^{\text{ilr}}\; y_u{}^{\text{pi2}}\; LF_{2,1,-1}\left[\, \tilde{\mu}\, ,\; m_{\tilde{d}}^{-\, r}\, \right] \; + \; \frac{1}{4}\; s_{\gamma}\; \overline{y_d}{}^{\text{pr}}\; y_d{}^{\text{ilr}}\; y_u{}^{\text{pi2}}\; LF_{2,1,-1}\left[\, \tilde{\mu}\, ,\; m_{\tilde{d}}^{-\, r}\, \right] \; + \; \frac{1}{4}\; s_{\gamma}\; \overline{y_d}{}^{\text{pr}}\; y_d{}^{\text{ilr}}\; y_u{}^{\text{pi2}}\; LF_{2,1,-1}\left[\, \tilde{\mu}\, ,\; m_{\tilde{d}}^{-\, r}\, \right] \; + \; \frac{1}{4}\; s_{\gamma}\; \overline{y_d}{}^{\text{pr}}\; y_d{}^{\text{ilr}}\; y_u{}^{\text{pi2}}\; LF_{2,1,-1}\left[\, \tilde{\mu}\, ,\; m_{\tilde{d}}^{-\, r}\, \right] \; + \; \frac{1}{4}\; s_{\gamma}\; \overline{y_d}\; y_d{}^{\text{pr}}\; y_d{}^{
                                                                                                                                                            s_{\gamma}\,\overline{y_{u}}^{\text{pr}}\,y_{u}^{\,\text{pi2}}\,y_{u}^{\,\text{ilr}}\,LF_{2,1,-1}\big[\widetilde{\mu}\,,\,m_{\tilde{q}}^{\,\,p}\big]\,+\,\frac{1}{4}\,s_{\gamma}\,\overline{y_{u}}^{\text{pr}}\,y_{u}^{\,\,\text{pi2}}\,y_{u}^{\,\,\text{ilr}}\,LF_{2,1,-1}\big[\widetilde{\mu}\,,\,m_{\tilde{u}}^{\,\,r}\big]\,+\,\frac{1}{4}\,s_{\gamma}\,\overline{y_{u}}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,LF_{2,1,-1}\big[\widetilde{\mu}\,,\,m_{\tilde{u}}^{\,\,r}\big]\,+\,\frac{1}{4}\,s_{\gamma}\,\overline{y_{u}}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,LF_{2,1,-1}\big[\widetilde{\mu}\,,\,m_{\tilde{u}}^{\,\,r}\big]\,+\,\frac{1}{4}\,s_{\gamma}\,\overline{y_{u}}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,LF_{2,1,-1}\big[\widetilde{\mu}\,,\,m_{\tilde{u}}^{\,\,r}\big]\,+\,\frac{1}{4}\,s_{\gamma}\,\overline{y_{u}}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,x_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y_{u}^{\,pr}\,y
                                                                                                                       \frac{2}{9} \; \mathsf{m_1} \; \mathsf{g_1}^2 \; \left( \mathsf{s_{_{Y}}} \; \mathsf{a_u}^{\mathsf{ili2}} - \widetilde{\mu} \; \mathsf{c_{_{Y}}} \; \mathsf{y_u}^{\mathsf{ili2}} \right) \; \mathsf{LF_{1,1,1,0}} \left[ \mathsf{m_1} \; , \; \mathsf{m_{\tilde{q}}}^{\mathsf{il}} \; , \; \mathsf{m_{\tilde{u}}}^{\mathsf{i2}} \right] \; + \\
                                                                                                                       \frac{1}{18} \; \mathsf{m_1} \; \mathsf{C_{H^2}} \; \mathsf{g_1}^2 \; \left( - \, \mathsf{s_{\scriptscriptstyle Y}} \; \mathsf{a_u}^{\, \mathsf{i} \, \mathsf{1} \, \mathsf{i} \, \mathsf{2}} \right. + \\ \widetilde{\mu} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{y_u}^{\, \mathsf{i} \, \mathsf{1} \, \mathsf{i} \, \mathsf{2}} \right) \; \mathsf{LF_{2,2,1,-1}} \left[ \, \mathsf{m_1} \, , \; \mathsf{m_{\tilde{q}}}^{\, \mathsf{i} \, \mathsf{1}} \, , \; \mathsf{m_{\tilde{u}}}^{\, \mathsf{i} \, \mathsf{2}} \, \right] \; - \\ \mathsf{m_1} \; \mathsf{m_2} \; \mathsf{m_2} \; \mathsf{m_3} \; \mathsf{
                                                                                                                                                                      \mathbf{s}_{\gamma} \; \mathbf{g_{1}}^{2} \; \mathbf{y_{u}}^{\text{ili2}} \; \mathsf{LF_{1,1,1,-1}} \big[ \, \mathbf{m_{1}} \, , \; \mathbf{m_{\tilde{q}}}^{\text{il}} \, , \; \tilde{\mu} \, \big] \; - \; \frac{1}{6} \; \mathbf{m_{1}} \; \tilde{\mu} \; \mathbf{c_{\gamma}} \; \mathbf{g_{1}}^{2} \; \mathbf{y_{u}}^{\text{ili2}} \; \mathsf{LF_{1,1,1,0}} \big[ \, \mathbf{m_{1}} \, , \; \mathbf{m_{\tilde{q}}}^{\text{il}} \, , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il}} \; , \; \tilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{q}}}^{\text{il
                                                                                                                                                                                           \mathsf{m_1} \; \mathsf{C_{H^2}} \; \mathsf{g_1}^2 \; \left( - \, \mathsf{s_{\scriptscriptstyle Y}} \; \mathsf{a_u}^{\, \mathsf{i} \, \mathsf{1} \, \mathsf{i} \, \mathsf{2}} \, + \, \widetilde{\boldsymbol{\mu}} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{y_u}^{\, \mathsf{i} \, \mathsf{1} \, \mathsf{i} \, \mathsf{2}} \right) \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathsf{m_1} \, , \; \mathsf{m_{\bar{u}}}^{\, \mathsf{i} \, \mathsf{2}} \, , \; \mathsf{m_{\bar{q}}}^{\, \mathsf{i} \, \mathsf{1}} \big] \; + \, \widetilde{\boldsymbol{\mu}} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{y_u}^{\, \mathsf{i} \, \mathsf{1} \, \mathsf{i} \, \mathsf{2}} \right) \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathsf{m_1} \, , \; \mathsf{m_{\bar{u}}}^{\, \mathsf{i} \, \mathsf{2}} \, , \; \mathsf{m_{\bar{q}}}^{\, \mathsf{i} \, \mathsf{1}} \big] \; + \, \widetilde{\boldsymbol{\mu}} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{y_u}^{\, \mathsf{i} \, \mathsf{1} \, \mathsf{1}} \, , \; \mathsf{m_{\bar{q}}}^{\, \mathsf{i} \, \mathsf{1}} \, , \; \mathsf{m_{\bar{q}}}^{\, \mathsf{i} \, \mathsf{1}} \, \big] \; + \, \widetilde{\boldsymbol{\mu}} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{y_u}^{\, \mathsf{i} \, \mathsf{1}} \, , \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{c_{\scriptscriptstyle Y}} \, , \; \mathsf{c_{\scriptscriptstyle Y}} \; , \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{c_{\scriptscriptstyle Y}} \, , \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{c_{\scriptscriptstyle Y}} \, , \; \mathsf{c_{\scriptscriptstyle Y}} \; , \; \mathsf{c_{\scriptscriptstyle Y}} \; \mathsf{c_{\scriptscriptstyle Y}} \, , \; \mathsf{c_{\scriptscriptstyle Y}} \; , \; \mathsf{c_{\scriptscriptstyle 
                                                                                                                                                                      \mathbf{s_{\gamma}} \; \mathbf{g_{1}}^{2} \; \mathbf{y_{u}}^{\text{ili2}} \; \mathsf{LF_{1,1,1,-1}} \big[ \, \mathbf{m_{1}} \, , \; \mathbf{m_{\tilde{u}}}^{\text{i2}} \, , \; \widetilde{\mu} \, \big] \; + \; \frac{2}{3} \; \mathbf{m_{1}} \; \widetilde{\mu} \; \mathbf{c_{\gamma}} \; \mathbf{g_{1}}^{2} \; \mathbf{y_{u}}^{\text{ili2}} \; \mathsf{LF_{1,1,1,0}} \big[ \, \mathbf{m_{1}} \, , \; \mathbf{m_{\tilde{u}}}^{\text{i2}} \, , \; \widetilde{\mu} \, \big] \; - \; \mathbf{m_{\tilde{u}}}^{\text{i2}} \; \mathbf{m_{\tilde{u}}}^{\text{i2}} \; , \; \widetilde{\mu} \, \big] \; + \; \mathbf{m_{\tilde{u}}}^{\text{i2}} \; \mathbf{m_{\tilde{
                                                                                                                                                                                                 s_{\gamma} \; C_{H^2} \; g_{1}^{\; 2} \; y_{u}^{\; \text{ili2}} \; LF_{2,2,1,-2} \big[ \, m_{1} \, , \; \tilde{\mu} \, , \; m_{\tilde{q}}^{\; \text{il}} \, \big] \; - \; \frac{1}{12} \; m_{1} \; C_{H^2} \; \tilde{\mu} \; c_{\gamma} \; g_{1}^{\; 2} \; y_{u}^{\; \text{ili2}} \; LF_{2,2,1,-1} \big[ \, m_{1} \, , \; \tilde{\mu} \, , \; m_{\tilde{q}}^{\; \text{il}} \, \big] \; + \; \frac{1}{12} \; m_{1} \; C_{H^2} \; \tilde{\mu} \; c_{\gamma} \; g_{1}^{\; 2} \; y_{u}^{\; \text{ili2}} \; LF_{2,2,1,-1} \big[ \, m_{1} \, , \; \tilde{\mu} \, , \; m_{\tilde{q}}^{\; \text{il}} \, \big] \; + \; \frac{1}{12} \; m_{1} \; C_{H^2} \; \tilde{\mu} \; c_{\gamma} \; g_{1}^{\; 2} \; y_{u}^{\; \text{ili2}} \; LF_{2,2,1,-1} \big[ \, m_{1} \, , \; \tilde{\mu} \, , \; m_{\tilde{q}}^{\; \text{ill}} \, \big] \; + \; \frac{1}{12} \; m_{1} \; C_{H^2} \; \tilde{\mu} \; c_{\gamma} \; g_{1}^{\; 2} \; g_{1}^{\; 2}
                                                                                                                                                                            \mathbf{s}_{\gamma}\;\mathsf{C}_{\mathsf{H}^2}\;\mathsf{g_1}^2\;\mathsf{y_u}^{\text{ili2}}\;\mathsf{LF}_{2,2,1,-2}\big[\mathsf{m_1},\;\widetilde{\mu}\;,\;\mathsf{m_{\tilde{u}}}^{\text{i2}}\big]\;+\;\frac{1}{3}\;\mathsf{m_1}\;\mathsf{C}_{\mathsf{H}^2}\;\widetilde{\mu}\;\mathsf{c}_{\gamma}\;\mathsf{g_1}^2\;\mathsf{y_u}^{\text{ili2}}\;\mathsf{LF}_{2,2,1,-1}\big[\mathsf{m_1}\;,\;\widetilde{\mu}\;,\;\mathsf{m_{\tilde{u}}}^{\text{i2}}\big]\;+\;\frac{1}{3}\;\mathsf{m_1}\;\mathsf{C}_{\mathsf{H}^2}\;\widetilde{\mu}\;\mathsf{c}_{\gamma}\;\mathsf{g_1}^2\;\mathsf{y_u}^{\text{ili2}}\;\mathsf{LF}_{2,2,1,-1}\big[\mathsf{m_1}\;,\;\widetilde{\mu}\;,\;\mathsf{m_{\tilde{u}}}^{\text{i2}}\big]\;+\;\frac{1}{3}\;\mathsf{m_1}\;\mathsf{C}_{\mathsf{H}^2}\;\widetilde{\mu}\;\mathsf{c}_{\gamma}\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_1}^2\;\mathsf{g_2}^2\;\mathsf{g_1}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_1}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g_2}^2\;\mathsf{g
                                                                                                                                                                      s_{\gamma}\,g_{2}^{\,\,2}\,y_{u}^{\,\,i\,1\,i\,2}\,\,LF_{1,1,1,-1}\big[\,m_{2}\,,\,m_{\tilde{q}}^{\,\,i\,1}\,,\,\tilde{\mu}\,\big]\,+\,\frac{3}{2}\,\,m_{2}\,\,\tilde{\mu}\,\,c_{\gamma}\,g_{2}^{\,\,2}\,y_{u}^{\,\,i\,1\,i\,2}\,\,LF_{1,1,1,0}\big[\,m_{2}\,,\,m_{\tilde{q}}^{\,\,i\,1}\,,\,\tilde{\mu}\,\big]\,+\,\frac{3}{2}\,m_{2}\,\,\tilde{\mu}\,\,c_{\gamma}\,g_{2}^{\,\,2}\,y_{u}^{\,\,i\,1\,i\,2}\,LF_{1,1,1,0}\big[\,m_{2}\,,\,m_{\tilde{q}}^{\,\,i\,1}\,,\,\tilde{\mu}\,\big]\,+\,\frac{3}{2}\,m_{2}\,\,\tilde{\mu}\,\,c_{\gamma}\,g_{2}^{\,\,2}\,y_{u}^{\,\,i\,1\,i\,2}\,LF_{1,1,1,0}\big[\,m_{2}\,,\,m_{\tilde{q}}^{\,\,i\,1}\,,\,\tilde{\mu}\,\big]\,+\,\frac{3}{2}\,m_{2}\,\,\tilde{\mu}\,\,c_{\gamma}\,g_{2}^{\,\,2}\,y_{u}^{\,\,i\,1\,i\,2}\,LF_{1,1,1,0}\big[\,m_{2}\,,\,m_{\tilde{q}}^{\,\,i\,1}\,,\,\tilde{\mu}\,\big]\,+\,\frac{3}{2}\,m_{2}\,\,\tilde{\mu}\,\,c_{\gamma}\,g_{2}^{\,\,2}\,y_{u}^{\,\,i\,1\,i\,2}\,LF_{1,1,1,0}\big[\,m_{2}\,,\,m_{\tilde{q}}^{\,\,i\,1}\,,\,\tilde{\mu}\,\big]\,+\,\frac{3}{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m_{2}\,m
                                                                                                                                                                            \mathbf{s}_{\gamma}\;\mathbf{C}_{\mathsf{H}^2}\;\mathbf{g_2}^2\;\mathbf{y_u}^{\text{ili2}}\;\mathsf{LF_{2,2,1,-2}}\!\left[\mathbf{m}_2\,,\;\widetilde{\mu}\,,\;\mathbf{m_{\tilde{q}}}^{\text{il}}\right]\;+\;\frac{3}{4}\;\mathbf{m}_2\;\mathbf{C}_{\mathsf{H}^2}\;\widetilde{\mu}\;\mathbf{c}_{\gamma}\;\mathbf{g_2}^2\;\mathbf{y_u}^{\text{ili2}}\;\mathsf{LF_{2,2,1,-1}}\!\left[\mathbf{m}_2\,,\;\widetilde{\mu}\,,\;\mathbf{m_{\tilde{q}}}^{\text{il}}\right]\;+\;\frac{3}{4}\;\mathbf{m}_2\;\mathbf{C}_{\mathsf{H}^2}\;\widetilde{\mu}\;\mathbf{c}_{\gamma}\;\mathbf{g_2}^2\;\mathbf{y_u}^{\text{ili2}}\;\mathsf{LF_{2,2,1,-1}}\!\left[\mathbf{m}_2\,,\;\widetilde{\mu}\,,\;\mathbf{m_{\tilde{q}}}^{\text{il}}\right]\;+\;\frac{3}{4}\;\mathbf{m}_2\;\mathbf{C}_{\mathsf{H}^2}\;\widetilde{\mu}\;\mathbf{c}_{\gamma}\;\mathbf{g_2}^2\;\mathbf{y_u}^{\text{ili2}}\;\mathsf{LF_{2,2,1,-1}}\!\left[\mathbf{m}_2\,,\;\widetilde{\mu}\,,\;\mathbf{m_{\tilde{q}}}^{\text{il}}\right]\;+\;\frac{3}{4}\;\mathbf{m}_2\;\mathbf{C}_{\mathsf{H}^2}\;\widetilde{\mu}\;\mathbf{c}_{\gamma}\;\mathbf{g_2}^2\;\mathbf{y_u}^{\text{ili2}}\;\mathsf{LF_{2,2,1,-1}}\!\left[\mathbf{m}_2\,,\;\widetilde{\mu}\,,\;\mathbf{m_{\tilde{q}}}^{\text{il}}\right]\;+\;\frac{3}{4}\;\mathbf{m}_2\;\mathbf{C}_{\mathsf{H}^2}\;\widetilde{\mu}\;\mathbf{c}_{\gamma}\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_2}^2\;\mathbf{g_
                                                                                                                                                                      \textbf{m}_{3} \; \textbf{g}_{3}^{\; 2} \; \left( \textbf{s}_{\curlyvee} \; \textbf{a}_{u}^{\; \text{ili2}} - \tilde{\mu} \; \textbf{c}_{\curlyvee} \; \textbf{y}_{u}^{\; \text{ili2}} \right) \; \textbf{LF}_{\textbf{1,1,1,0}} \left[ \, \textbf{m}_{3} \, , \; \textbf{m}_{\tilde{\textbf{q}}}^{\; \text{il}} \, , \; \textbf{m}_{\tilde{\textbf{u}}}^{\; \text{i2}} \, \right] \; + \; \textbf{m}_{\tilde{\textbf{q}}}^{\; \text{il}} \; , \; 
                                                                                                                                                                      \mathsf{m_3}\;\mathsf{C_{H^2}}\;\mathsf{g_3}^2\;\left(-\,\mathsf{s_{_Y}}\;\mathsf{a_u}^{\,\mathsf{ili2}}\,+\,\widetilde{\mu}\;\mathsf{c_{_Y}}\;\mathsf{y_u}^{\,\mathsf{ili2}}\right)\;\mathsf{LF_{2,2,1,-1}}\!\left[\,\mathsf{m_3}\,,\,\,\mathsf{m_{\tilde{q}}}^{\,\mathsf{il}}\,,\,\,\mathsf{m_{\tilde{u}}}^{\,\mathsf{il}}\,\right]\,+\,
                                                                                                                                                                 \widetilde{\mu} \hspace{0.1cm} y_{d}^{\hspace{0.1cm} \text{ilr}} \hspace{0.1cm} y_{u}^{\hspace{0.1cm} \text{pi2}} \hspace{0.1cm} \left( -\hspace{0.1cm} c_{\gamma} \hspace{0.1cm} \overline{a_{d}}^{\hspace{0.1cm} \text{pr}} + \hspace{0.1cm} s_{\gamma} \hspace{0.1cm} \widetilde{\mu} \hspace{0.1cm} \overline{y_{d}}^{\hspace{0.1cm} \text{pr}} \right) \hspace{0.1cm} \text{LF}_{1,1,1,0} \hspace{0.1cm} \left[ \hspace{0.1cm} \boldsymbol{m_{\tilde{d}}}^{\hspace{0.1cm} \text{r}} \hspace{0.1cm} , \hspace{0.1cm} \boldsymbol{m_{\tilde{q}}}^{\hspace{0.1cm} \text{p}} \hspace{0.1cm} , \hspace{0.1cm} \widetilde{\mu} \hspace{0.1cm} \right] \hspace{0.1cm} + \hspace{0.1cm} \boldsymbol{s}_{\gamma} \hspace{0.1cm} \widetilde{\mu} \hspace{0.1cm} \overline{y_{d}}^{\hspace{0.1cm} \text{pr}} \hspace{0.1cm} \right] \hspace{0.1cm} + \hspace{0.1cm} \boldsymbol{s}_{\gamma} \hspace{0.1cm} \widetilde{\mu} \hspace{0.1cm} \overline{y_{d}}^{\hspace{0.1cm} \text{pr}} \hspace{0.1cm} + \hspace{0.1cm} \boldsymbol{s}_{\gamma} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \overline{y_{d}}^{\hspace{0.1cm} \text{pr}} \hspace{0.1cm} + \hspace{0.1cm} \boldsymbol{s}_{\gamma} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \overline{y_{d}}^{\hspace{0.1cm} \text{pr}} \hspace{0.1cm} + \hspace{0.1cm} \boldsymbol{s}_{\gamma} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \overline{y_{d}}^{\hspace{0.1cm} \text{pr}} \hspace{0.1cm} + \hspace{0.1cm} \boldsymbol{s}_{\gamma} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \overline{y_{d}}^{\hspace{0.1cm} \text{pr}} \hspace{0.1cm} + \hspace{0.1cm} \boldsymbol{s}_{\gamma} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \overline{y_{d}}^{\hspace{0.1cm} \text{pr}} \hspace{0.1cm} + \hspace{0.1cm} \boldsymbol{s}_{\gamma} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} + \hspace{0.1cm} \boldsymbol{s}_{\gamma} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} + \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} + \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} + \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} + \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} + \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} \underline{\mu} \hspace{0.1cm} + \hspace{0
                                                                                                            \frac{1}{2} \, \mathsf{C}_{\mathsf{H}^2} \, \widetilde{\mu} \, \mathsf{y_d}^{\mathsf{ilr}} \, \mathsf{y_u}^{\mathsf{pi2}} \, \left( \mathsf{c}_{\curlyvee} \, \overline{\mathsf{a_d}}^{\mathsf{pr}} - \mathsf{s}_{\curlyvee} \, \widetilde{\mu} \, \overline{\mathsf{y_d}}^{\mathsf{pr}} \right) \, \mathsf{LF}_{\mathsf{3,1,1,-1}} \big[ \, \mathsf{m_{\bar{d}}}^{\mathsf{r}} \, \mathsf{,} \, \, \mathsf{m_{\bar{q}}}^{\mathsf{p}} \, \mathsf{,} \, \, \widetilde{\mu} \, \big] \, + \, \mathsf{a_{\bar{d}}}^{\mathsf{pr}} \, \mathsf{n_{\bar{d}}}^{\mathsf{pr}} \, \mathsf{n_{\bar{d}}}^{\mathsf{pr
                                                                                                                       \frac{1}{4} \; \mathsf{C_{H^2}} \, \widetilde{\mu} \; \mathsf{y_d}^{\mathsf{ilr}} \; \mathsf{y_u}^{\mathsf{pi2}} \; \left( \mathsf{c_{\gamma}} \; \overline{\mathsf{a_d}}^{\mathsf{pr}} - \mathsf{s_{\gamma}} \, \widetilde{\mu} \; \overline{\mathsf{y_d}}^{\mathsf{pr}} \right) \; \mathsf{LF_{2,2,1,-1}} \big[ \, \mathsf{m_{\tilde{d}}}^{\mathsf{r}} \, \mathsf{,} \; \widetilde{\mu} \, \mathsf{,} \; \mathsf{m_{\tilde{q}}}^{\mathsf{p}} \, \big] \; + \; \mathsf{m_{\tilde{d}}}^{\mathsf{pr}} \; \mathsf{m_{\tilde{d}}}^{\mathsf{pr}} \, \mathsf{m_{
                                                                                                                                                                 \mathsf{C_{H^2}}\,\,\widetilde{\boldsymbol{\mu}}\,\,\mathsf{y_d}^{\text{ilr}}\,\,\mathsf{y_u}^{\text{pi2}}\,\left(-\,\mathsf{c_{\scriptscriptstyle Y}}\,\,\overline{\mathbf{a_d}}^{\text{pr}}\,+\,\mathsf{s_{\scriptscriptstyle Y}}\,\widetilde{\boldsymbol{\mu}}\,\,\overline{\mathbf{y_d}}^{\text{pr}}\right)\,\,\mathsf{LF_{2,1,1,0}}\left[\,\mathsf{m_{\bar{q}}}^{\text{p}}\,,\,\,\mathsf{m_{\bar{d}}}^{\text{r}}\,,\,\,\widetilde{\boldsymbol{\mu}}\,\right]\,+\,\,\mathsf{c_{\scriptscriptstyle Y}}\,\,\mathsf{a_d}^{\text{pr}}\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text{pr}}\,,\,\,\mathsf{a_d}^{\text
                                                                                                                                                                 \mathsf{C_{H^2}}\,\,\widetilde{\boldsymbol{\mu}}\,\,\mathsf{y_d}^{\text{ilr}}\,\,\mathsf{y_u}^{\text{pi2}}\,\,\left(\mathsf{c_{\scriptscriptstyle Y}}\,\,\overline{\mathsf{a_d}}^{\text{pr}}\,-\,\mathsf{s_{\scriptscriptstyle Y}}\,\,\widetilde{\boldsymbol{\mu}}\,\,\overline{\mathsf{y_d}}^{\text{pr}}\right)\,\,\mathsf{LF_{3,1,1,-1}}\big[\,\mathsf{m_{\bar{q}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,r}\,,\,\,\widetilde{\boldsymbol{\mu}}\,\big]\,\,+\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^
                                                                                                                                                                 \mathsf{C_{H^2}}\,\widetilde{\boldsymbol{\mu}}\,\,\mathsf{y_d}^{\text{ilr}}\,\,\mathsf{y_u}^{\text{pi2}}\,\left(\mathsf{c_{\scriptscriptstyle Y}}\,\,\overline{\mathsf{a_d}}^{\text{pr}}\,-\,\mathsf{s_{\scriptscriptstyle Y}}\,\widetilde{\boldsymbol{\mu}}\,\,\overline{\mathsf{y_d}}^{\text{pr}}\right)\,\,\mathsf{LF_{2,2,1,-1}}\big[\,\mathsf{m_{\bar{q}}}^{\,\,p}\,,\,\,\widetilde{\boldsymbol{\mu}}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,r}\,\big]\,\,+\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p}\,,\,\,\mathsf{m_{\bar{d}}}^{\,\,p
                                                                                                                                                                 m_1 C_{H^2} g_1^2 (s_{\gamma} a_u^{i1i2} - \tilde{\mu} c_{\gamma} y_u^{i1i2}) LF_{2,1,1,0}[m_{\tilde{q}}^{i1}, m_1, m_{\tilde{u}}^{i2}] +
                                                                                                                                                                      m_1 C_{H^2} g_1^2 \left(-s_{\gamma} a_u^{i1i2} + \tilde{\mu} c_{\gamma} y_u^{i1i2}\right) LF_{3,1,1,-1} \left[m_{\tilde{q}}^{i1}, m_1, m_{\tilde{u}}^{i2}\right] + c_{\gamma} y_u^{i1i2}
                                                                                                                                                                      \text{m}_{3} \; \text{C}_{\text{H}^{2}} \; \text{g}_{\text{3}}^{\; \; 2} \; \left( \, \text{s}_{\text{Y}} \; \text{a}_{\text{u}}^{\; \, \text{i1i}2} \, - \, \widetilde{\mu} \; \text{c}_{\text{Y}} \; \text{y}_{\text{u}}^{\; \, \text{i1i}2} \right) \; \text{LF}_{\text{2,1,1,0}} \big[ \, \text{m}_{\tilde{\text{q}}}^{\; \, \text{i1}} \, , \; \text{m}_{\text{3}} \, , \; \text{m}_{\tilde{\text{u}}}^{\; \, \text{i2}} \, \big] \; + \; \text{constants} \\
                                                                                                                                                                      \mathsf{m_{3}}\;\mathsf{C_{H^{2}}}\;\mathsf{g_{3}}^{2}\;\left(-\,\mathsf{s_{\gamma}}\;\mathsf{a_{u}}^{\,\mathsf{ili2}}\,+\,\widetilde{\mu}\;\mathsf{c_{\gamma}}\;\mathsf{y_{u}}^{\,\mathsf{ili2}}\right)\;\mathsf{LF_{3,1,1,-1}}\!\left[\,\mathsf{m_{\tilde{q}}}^{\,\mathsf{il}}\,,\;\mathsf{m_{3}}\,,\;\mathsf{m_{\tilde{u}}}^{\,\mathsf{il}}\,^{2}\,\right]\,+\,\widetilde{\mu}^{\,\mathsf{il}}\;\mathsf{c_{\gamma}}\;\mathsf{c_{\gamma}}\;\mathsf{b_{\gamma}}^{\,\mathsf{ili2}}
                                                                                                                                                                            \mathbf{m_{1}} \; \mathbf{C_{H^{2}}} \; \mathbf{g_{1}}^{2} \; \left( - \, \mathbf{s_{\gamma}} \; \mathbf{a_{u}}^{\, \text{ili2}} + \widetilde{\mu} \; \mathbf{c_{\gamma}} \; \mathbf{y_{u}}^{\, \text{ili2}} \right) \; \mathbf{LF_{3,1,1,-1}} \left[ \, \mathbf{m_{\tilde{u}}}^{\, \text{i2}} \, , \; \mathbf{m_{1}} , \; \mathbf{m_{\tilde{q}}}^{\, \text{il}} \, \right] \; + \\
```

$$\begin{split} & \text{m}_3 \; \text{C}_{\text{H}^2} \; \text{g}_3^{\; 2} \; \left(\, \text{s}_\gamma \; \text{a}_u^{\; \text{i} \, \text{i} \, \text{i} \, 2} \, - \, \widetilde{\mu} \; \text{c}_\gamma \; \text{y}_u^{\; \text{i} \, \text{i} \, \text{i} \, 2} \, \right) \; \text{LF}_{2,1,1,9} \left[\, \text{m}_{\bar{u}}^{\; \; \text{i} \, 2} \, , \; \text{m}_3 \, , \; \text{m}_{\bar{q}}^{\; \; \text{i} \, 1} \, \right] \; + \\ & \text{m}_3 \; \text{C}_{\text{H}^2} \; \text{g}_3^{\; 2} \; \left(\, - \, \text{s}_\gamma \; \text{a}_u^{\; \, \text{i} \, \text{i} \, \text{i} \, 2} \, + \, \widetilde{\mu} \; \text{c}_\gamma \; \text{y}_u^{\; \, \text{i} \, \text{i} \, \text{i} \, 2} \right) \; \text{LF}_{3,1,1,-1} \left[\, \text{m}_{\bar{u}}^{\; \; \, \text{i} \, 2} \, , \; \text{m}_3 \, , \; \text{m}_{\bar{q}}^{\; \; \, \text{i} \, 1} \, \right] \; \right) \end{split}$$

 $Y_u^{i1}_{-}^{i2}_{-} \rightarrow s_{\gamma} y_u^{i1i2}_{-} +$