

$$\begin{aligned}
& \frac{1}{16\pi^2} \left(\frac{1}{216} \frac{1}{m_e^2} (7 g_1^2 c_Y^2 \overline{y_u}^{pi3} y_u^{pi4} \delta_{i1i2} + 2 s_Y^2 \overline{y_e}^{i2p} y_e^{i1p} (-27 c_Y^2 \overline{y_u}^{ri3} y_u^{ri4} + 7 g_1^2 \delta_{i3i4})) - \right. \\
& \frac{4}{81} \sum_p g_1^4 LF_{3,0}[m_d^p] \delta_{i1i2} \delta_{i3i4} + \frac{5}{54} \sum_p g_1^4 LF_{4,-1}[m_d^p] \delta_{i1i2} \delta_{i3i4} - \\
& \frac{16}{405} \sum_p g_1^4 LF_{5,-2}[m_d^p] \delta_{i1i2} \delta_{i3i4} - \frac{4}{27} \sum_p g_1^4 LF_{3,0}[m_e^p] \delta_{i1i2} \delta_{i3i4} + \\
& \frac{5}{18} \sum_p g_1^4 LF_{4,-1}[m_e^p] \delta_{i1i2} \delta_{i3i4} - \frac{16}{135} \sum_p g_1^4 LF_{5,-2}[m_e^p] \delta_{i1i2} \delta_{i3i4} - \\
& \frac{2}{27} \sum_p g_1^4 LF_{3,0}[m_l^p] \delta_{i1i2} \delta_{i3i4} + \frac{5}{36} \sum_p g_1^4 LF_{4,-1}[m_l^p] \delta_{i1i2} \delta_{i3i4} - \\
& \frac{8}{135} \sum_p g_1^4 LF_{5,-2}[m_l^p] \delta_{i1i2} \delta_{i3i4} - \frac{2}{81} \sum_p g_1^4 LF_{3,0}[m_q^p] \delta_{i1i2} \delta_{i3i4} + \\
& \frac{5}{108} \sum_p g_1^4 LF_{4,-1}[m_q^p] \delta_{i1i2} \delta_{i3i4} - \frac{8}{405} \sum_p g_1^4 LF_{5,-2}[m_q^p] \delta_{i1i2} \delta_{i3i4} - \frac{16}{81} \sum_p g_1^4 LF_{3,0}[m_u^p] \\
& \delta_{i1i2} \delta_{i3i4} + \frac{10}{27} \sum_p g_1^4 LF_{4,-1}[m_u^p] \delta_{i1i2} \delta_{i3i4} - \frac{64}{405} \sum_p g_1^4 LF_{5,-2}[m_u^p] \delta_{i1i2} \delta_{i3i4} + \\
& \frac{1}{18} (g_1^2 c_Y^2 \overline{y_u}^{pi3} y_u^{pi4} \delta_{i1i2} + s_Y^2 \overline{y_e}^{i2p} y_e^{i1p} (-9 c_Y^2 \overline{y_u}^{ri3} y_u^{ri4} + 4 g_1^2 \delta_{i3i4})) LF_{1,2}[m_\oplus] + \\
& \frac{1}{36} (3 g_1^2 c_Y^2 \overline{y_u}^{pi3} y_u^{pi4} \delta_{i1i2} + s_Y^2 \overline{y_e}^{i2p} y_e^{i1p} (9 c_Y^2 \overline{y_u}^{ri3} y_u^{ri4} - 2 g_1^2 \delta_{i3i4})) LF_{2,1}[m_\oplus] + \\
& \frac{1}{108} g_1^2 (6 s_Y^2 \overline{y_e}^{i2p} y_e^{i1p} \delta_{i3i4} - (9 c_Y^2 \overline{y_u}^{pi3} y_u^{pi4} + 8 g_1^2 \delta_{i3i4}) \delta_{i1i2}) LF_{3,0}[m_\oplus] + \\
& \frac{5}{36} g_1^4 LF_{4,-1}[m_\oplus] \delta_{i1i2} \delta_{i3i4} - \frac{8}{135} g_1^4 LF_{5,-2}[m_\oplus] \delta_{i1i2} \delta_{i3i4} - \\
& \frac{2}{27} g_1^4 LF_{3,0}[\tilde{\mu}] \delta_{i1i2} \delta_{i3i4} - \frac{1}{9} g_1^4 LF_{4,-1}[\tilde{\mu}] \delta_{i1i2} \delta_{i3i4} + \frac{16}{135} g_1^4 LF_{5,-2}[\tilde{\mu}] \delta_{i1i2} \delta_{i3i4} - \\
& \frac{1}{36} g_1^4 LF_{2,1,0}[m_1, m_l^{i2}] \delta_{i1i2} \delta_{i3i4} - \frac{1}{36} g_1^4 LF_{2,2,-1}[m_1, m_l^{i2}] \delta_{i1i2} \delta_{i3i4} + \\
& \frac{1}{18} g_1^4 LF_{3,1,-1}[m_1, m_l^{i2}] \delta_{i1i2} \delta_{i3i4} - \frac{1}{36} g_1^4 LF_{4,1,-2}[m_1, m_l^{i2}] \delta_{i1i2} \delta_{i3i4} - \\
& \frac{4}{81} g_1^4 LF_{2,1,0}[m_1, m_u^{i4}] \delta_{i1i2} \delta_{i3i4} - \frac{4}{81} g_1^4 LF_{2,2,-1}[m_1, m_u^{i4}] \delta_{i1i2} \delta_{i3i4} + \\
& \frac{8}{81} g_1^4 LF_{3,1,-1}[m_1, m_u^{i4}] \delta_{i1i2} \delta_{i3i4} - \frac{4}{81} g_1^4 LF_{4,1,-2}[m_1, m_u^{i4}] \delta_{i1i2} \delta_{i3i4} - \\
& \frac{1}{12} g_1^2 g_2^2 LF_{2,1,0}[m_2, m_l^{i2}] \delta_{i1i2} \delta_{i3i4} - \frac{1}{12} g_1^2 g_2^2 LF_{2,2,-1}[m_2, m_l^{i2}] \delta_{i1i2} \delta_{i3i4} + \\
& \frac{1}{6} g_1^2 g_2^2 LF_{3,1,-1}[m_2, m_l^{i2}] \delta_{i1i2} \delta_{i3i4} - \frac{1}{12} g_1^2 g_2^2 LF_{4,1,-2}[m_2, m_l^{i2}] \delta_{i1i2} \delta_{i3i4} - \\
& \frac{4}{27} g_1^2 g_3^2 LF_{2,1,0}[m_3, m_u^{i4}] \delta_{i1i2} \delta_{i3i4} - \frac{4}{27} g_1^2 g_3^2 LF_{2,2,-1}[m_3, m_u^{i4}] \delta_{i1i2} \delta_{i3i4} + \\
& \frac{8}{27} g_1^2 g_3^2 LF_{3,1,-1}[m_3, m_u^{i4}] \delta_{i1i2} \delta_{i3i4} - \frac{4}{27} g_1^2 g_3^2 LF_{4,1,-2}[m_3, m_u^{i4}] \delta_{i1i2} \delta_{i3i4} + \\
& \frac{2}{9} g_1^2 \overline{y_e}^{i2p} y_e^{i1p} LF_{2,1,0}[m_e^p, \tilde{\mu}] \delta_{i3i4} - \frac{1}{9} g_1^2 \overline{y_e}^{i2p} y_e^{i1p} LF_{2,2,-1}[m_e^p, \tilde{\mu}] \delta_{i3i4} - \\
& \frac{1}{9} g_1^2 \overline{y_e}^{i2p} y_e^{i1p} LF_{3,1,-1}[m_e^p, \tilde{\mu}] \delta_{i3i4} + \frac{1}{18} g_1^4 LF_{2,1,0}[m_l^{i2}, m_1] \delta_{i1i2} \delta_{i3i4} - \\
& \frac{1}{36} g_1^4 LF_{3,1,-1}[m_l^{i2}, m_1] \delta_{i1i2} \delta_{i3i4} + \frac{1}{6} g_1^2 g_2^2 LF_{2,1,0}[m_l^{i2}, m_2] \delta_{i1i2} \delta_{i3i4} - \\
& \frac{1}{12} g_1^2 g_2^2 LF_{3,1,-1}[m_l^{i2}, m_2] \delta_{i1i2} \delta_{i3i4} + \frac{1}{18} g_1^2 \overline{y_u}^{pi3} y_u^{pi4} LF_{2,1,0}[m_q^p, \tilde{\mu}] \delta_{i1i2} - \\
& \frac{1}{36} g_1^2 \overline{y_u}^{pi3} y_u^{pi4} LF_{2,2,-1}[m_q^p, \tilde{\mu}] \delta_{i1i2} - \frac{1}{36} g_1^2 \overline{y_u}^{pi3} y_u^{pi4} LF_{3,1,-1}[m_q^p, \tilde{\mu}] \delta_{i1i2} + \\
& \frac{8}{81} g_1^4 LF_{2,1,0}[m_u^{i4}, m_1] \delta_{i1i2} \delta_{i3i4} - \frac{4}{81} g_1^4 LF_{3,1,-1}[m_u^{i4}, m_1] \delta_{i1i2} \delta_{i3i4} + \\
& \frac{8}{27} g_1^2 g_3^2 LF_{2,1,0}[m_u^{i4}, m_3] \delta_{i1i2} \delta_{i3i4} - \frac{4}{27} g_1^2 g_3^2 LF_{3,1,-1}[m_u^{i4}, m_3] \delta_{i1i2} \delta_{i3i4} - \\
& \frac{1}{9} g_1^2 \overline{y_e}^{i2p} y_e^{i1p} LF_{2,1,0}[\tilde{\mu}, m_e^p] \delta_{i3i4} + \frac{1}{18} g_1^2 \overline{y_e}^{i2p} y_e^{i1p} LF_{3,1,-1}[\tilde{\mu}, m_e^p] \delta_{i3i4} - \\
& \frac{1}{18} g_1^2 \overline{y_e}^{i2p} y_e^{i1p} LF_{4,1,-2}[\tilde{\mu}, m_e^p] \delta_{i3i4} - \frac{1}{36} g_1^2 \overline{y_u}^{pi3} y_u^{pi4} LF_{2,1,0}[\tilde{\mu}, m_q^p] \delta_{i1i2} + \\
& \frac{11}{36} g_1^2 \overline{y_u}^{pi3} y_u^{pi4} LF_{3,1,-1}[\tilde{\mu}, m_q^p] \delta_{i1i2} - \frac{1}{9} g_1^2 \overline{y_u}^{pi3} y_u^{pi4} LF_{4,1,-2}[\tilde{\mu}, m_q^p] \delta_{i1i2} - \\
& \frac{1}{9} g_1^4 LF_{2,1,1,-1}[m_1, m_l^{i2}, m_u^{i4}] \delta_{i1i2} \delta_{i3i4} - \frac{2}{9} g_1^4 m_1^2 LF_{2,1,1,0}[m_1, m_l^{i2}, m_u^{i4}] \delta_{i1i2} \delta_{i3i4} - \\
& \left. \frac{1}{2} \tilde{\mu}^2 \overline{y_e}^{i2p} y_e^{i1p} \overline{y_u}^{ri3} y_u^{ri4} LF_{2,1,1,0}[\tilde{\mu}, m_e^p, m_q^r] \right)
\end{aligned}$$