$$g_3 \to g_3 + \hbar \left(\frac{1}{2}\, {g_3}^3 - {g_3}^3\, \mathrm{LF}_{3,-1}[m_3] - \frac{1}{4} \sum_p {g_3}^3\, \mathrm{LF}_{2,0}\left[{m_{\tilde{d}}}^p\right] + \frac{1}{6} \sum_p {g_3}^3\, \mathrm{LF}_{3,-1}\left[{m_{\tilde{d}}}^p\right] - \right.$$
$$\left. \frac{1}{2} \sum_p {g_3}^3\, \mathrm{LF}_{2,0}\left[{m_q}^p\right] + \frac{1}{3} \sum_p {g_3}^3\, \mathrm{LF}_{3,-1}\left[{m_q}^p\right] - \frac{1}{4} \sum_p {g_3}^3\, \mathrm{LF}_{2,0}\left[{m_{\tilde{u}}}^p\right] + \frac{1}{6} \sum_p {g_3}^3\, \mathrm{LF}_{3,-1}\left[{m_{\tilde{u}}}^p\right] \right)$$