

$$\frac{(m_{VV}^{\text{NLO}})^2}{2Bm_V} = 1 + \frac{1}{16\pi^2 f^2} \frac{2}{3} \left( R_1^{[2,2]}(\{\mathcal{M}_{X,I}^{[2]}\}; \{\mu_I^{[2]}\}) \tilde{l}(m_X^2) \right)$$