

$$|M_{gg\rightarrow\gamma\gamma}|^2 = \frac{|S|^2 m_H^4}{(s - m_H^2)^2 + \Gamma_H^2 m_H^2} \left[ 1 + \frac{2(s - m_H^2)}{m_H^2} \Re\left(\frac{B^*}{S}\right) + 2\frac{\Gamma_H}{m_H} \Im\left(\frac{B^*}{S}\right) \right] + |B|^2$$