

Exercise for Chap. 16

1. In the anti-gauge mediation model verify that

$$M_q^2 = \frac{2C_2(r)b}{(4\pi)^2} \left[ \alpha^2(\mu) - \alpha^2(\mu) \frac{N}{b} + (\alpha^2(\mu) - \alpha^2(M)) \left( \frac{N^2}{b^2} - \frac{N}{b} \right) \right] \frac{|F_\Sigma|^2}{M_{\text{Pl}}^2}.$$