

$$\beta(a) = -\frac{2}{3}\left(11 - \frac{2N_f}{N_c}\right)a^2 - \frac{2}{3}\left(34 - \frac{10N_f}{N_c} - \frac{3N_f(N_c^2 - 1)}{N_c^3}\right)a^3 + \dots$$