

$$\begin{aligned}\alpha(-p^2) &= \alpha_s \mathbf{T}_t^2 \left(\frac{\mu^2}{4\pi e^{-\gamma_E}} \right)^\epsilon \int \frac{d^{2-2\epsilon}k}{(2\pi)^{2-2\epsilon}} \frac{p^2}{k^2 (p-k)^2} \\ &= \frac{\alpha_s}{\pi} \mathbf{T}_t^2 \left(\frac{\mu^2}{p^2} \right)^\epsilon \frac{B_0(\epsilon)}{2\epsilon} + \mathcal{O}(\alpha_s^2)\end{aligned}$$

$$B_0(\epsilon) = e^{\epsilon\gamma_E} \frac{\Gamma^2(1-\epsilon)\Gamma(1+\epsilon)}{\Gamma(1-2\epsilon)} = 1 - \frac{\zeta_2}{2}\epsilon^2 - \frac{7\zeta_3}{3}\epsilon^3 + \dots$$