We are working in Minkowskian space-time, $p^2 = m^2$, in $d = 4 - 2\epsilon$ dimensions, and we also choose:

$$m^2 \;=\; 1.$$

We define:

$$\begin{aligned} M_{l,p'} &= \left[\frac{(\pi e^{\gamma})^{\epsilon}}{i\pi^2}\right]^{l} \int \frac{d^dk_1 \dots d^dk_l}{D_1^{m_1} \dots D_p^{m_p}} \\ &= \sum_k M_k(l, p, \dots)\; \epsilon^k, \end{aligned}$$

and $p' = m_1 + \dots m_p$. For undotted lines and no numerators, $p' = p$. The tadpole master is in our convention, correspondingly:

$$\begin{aligned} M_{1,1} \;=\; \texttt{T1l1m} &= \frac{(\pi e^{\gamma})^{\epsilon}}{i\pi^2}\; \left(4\pi\mu^2\right)^{\epsilon} \;\int \frac{d^dk}{k^2 - m^2} \\ &= m^2\; e^{\gamma\epsilon}\; \frac{\Gamma(1+\epsilon)}{\epsilon(1-\epsilon)}\; \left(\frac{4\pi\mu^2}{m^2}\right)^{\epsilon} \\ &\to m^2\; e^{\gamma\epsilon}\; \frac{\Gamma(1+\epsilon)}{\epsilon(1-\epsilon)}\; \left(\frac{1}{m^2}\right)^{\epsilon} \to e^{\gamma\epsilon}\; \frac{\Gamma(1+\epsilon)}{\epsilon(1-\epsilon)} \\ &= \frac{1}{\epsilon} + 1 + (1 + \zeta_2/2)\epsilon + \dots \end{aligned}$$

02 Nov 2004: Typo in definition of $M_{l,p'}$ corrected

02 Nov 2004: Typo in last line with $M_{1,1}$ corrected