

$$\int [\mathrm{D}k'] \frac{2(k \cdot k')}{k'^2 (k - k')^2} \left(\frac{p^2}{k'^2} \right)^{n\epsilon} = -\frac{1}{2\epsilon} \frac{B_n(\epsilon)}{B_0(\epsilon)} \left(\frac{p^2}{k^2} \right)^{(n+1)\epsilon}$$

with

$$B_n(\epsilon) = e^{\epsilon\gamma_{\mathrm{E}}} \frac{\Gamma(1-\epsilon)}{\Gamma(1+n\epsilon)} \frac{\Gamma(1+\epsilon+n\epsilon)\Gamma(1-\epsilon-n\epsilon)}{\Gamma(1-2\epsilon-n\epsilon)}.$$