RESLUTS FOR ADLER FUNCTIONS:

(dots stand for still unknown terms of order $\boldsymbol{\alpha_s}^4 \boldsymbol{n_f}$ and $\boldsymbol{\alpha_s}^4 \boldsymbol{n_f^0}$)

$$
\begin{aligned}
d_4 = {} & C_F\, n_f^3 \left[-\frac{6131}{7776} + \frac{203}{432}\zeta_3 + \frac{5}{24}\zeta_5 \right] \\
+ \quad & C_F\, C_A\, n_f^2 \left[\frac{340843}{20736} - \frac{10453}{1152}\zeta_3 - \frac{1}{8}\zeta_3^2 - \frac{85}{18}\zeta_5 \right] \\
+ \quad & C_F^2\, n_f^2 \left[\frac{5713}{6912} - \frac{581}{96}\zeta_3 + \frac{3}{4}\zeta_3^2 + \frac{125}{24}\zeta_5 \right] + \ldots
\end{aligned}
$$

$$
\begin{aligned}
\widetilde{d}_4 = {} & C_F\, n_f^3 \left[-\frac{520771}{746496} + \frac{65}{576}\zeta_3 + \frac{1}{192}\zeta_4 + \frac{5}{24}\zeta_5 \right] \\
+ \quad & C_F^2\, n_f^2 \left[\frac{7009861}{497664} - \frac{4073}{384}\zeta_3 \right. \\
& \left. + \frac{3}{4}\zeta_3^2 - \frac{15}{128}\zeta_4 + \frac{89}{24}\zeta_5 \right] \\
+ \quad & C_F\, C_A\, n_f^2 \left[\frac{18248293}{995328} - \frac{1243}{576}\zeta_3 \right. \\
& \left. - \frac{1}{8}\zeta_3^2 + \frac{15}{128}\zeta_4 - \frac{2621}{576}\zeta_5 \right] + \ldots,
\end{aligned}
$$

$\boldsymbol{n_f^3}$ terms are known from "renormalon studies" Beneke (93) /for $\boldsymbol{R}$/ and Broadhurst, Kataev, Maxwell (2001) for /$\widetilde{\boldsymbol{R}}$/ (and reproduced by us); terms of order $\boldsymbol{n_f^2}$ are new;