

Readme for ZetamC1C2.m

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The file `ZetamC1C2.m` contains computer-readable results for the decoupling constants $\zeta_m^{\overline{\text{MS}}}$ and ζ_m^{OS} parametrized in terms of $\alpha_s^{(n_f)}$, and the effective Higgs couplings $C_1^{\text{OS}}(\alpha_s^{(n_l)})$, $C_2^{\overline{\text{MS}}}(\alpha_s^{(n_f)})$ and $C_2^{\text{OS}}(\alpha_s^{(n_l)})$, which have been obtained in Ref. [1]. In `ZetamC1C2.m` the results are denoted by

zetamMSnf	zetamOSnf	C2MSnf	C2OSnl	C1OSnl
$\zeta_m^{\overline{\text{MS}}}$	ζ_m^{OS}	$C_2^{\overline{\text{MS}}}$	C_2^{OS}	C_1^{OS}

The symbols used in the file `ZetamC1C2.m` are defined in the following tables

nc	nl	nf	l2	b4nf	b4nl
n_c	n_l	n_f	$\ln 2$	$\beta_4^{(n_f)}$	$\beta_4^{(n_l)}$

apinf	apinl	z2,...,z7	a4, a5, a6	lmMS	lmOS
$\frac{\alpha_s^{(n_f)}(\mu)}{\pi}$	$\frac{\alpha_s^{(n_l)}(\mu)}{\pi}$	$\zeta_{2,\dots,7}$	$\text{Li}_{4,5,6}(1/2)$	$\ln \frac{\mu^2}{m_h^2}$	$\ln \frac{\mu^2}{M_h^2}$

For the meaning of the mathematical symbols we refer to [1].

References

- [1] Tao Liu and Matthias Steinhauser, “*Decoupling of heavy quarks at four loop and effective Higgs-fermi coupling*”, TTP15-05, arXiv:1502.04719 [hep-ph].