

XXIV International Workshop on Deep-Inelastic Scattering and Related Subjects (DIS16)



Contribution ID: 263

Type: **not specified**

Relation between the on-shell and $\overline{\text{MS}}$ mass at four loops

Wednesday, April 13, 2016 11:00 AM (15 minutes)

In this talk the relation between heavy quark masses defined in the on-shell and $\overline{\text{MS}}$ scheme is discussed at four-loop order in QCD. Special emphasis is put on the top quark mass where the four-loop result is used to estimate the remaining renormalon uncertainty. The relation between the $\overline{\text{MS}}$ and on-shell mass can also be used to establish precise relations between so-called threshold masses and the $\overline{\text{MS}}$ mass which has important applications both for bottom and top.

Primary author: Prof. STEINHAUSER, Matthias (KIT)

Presenter: Prof. STEINHAUSER, Matthias (KIT)

Session Classification: WG4 Heavy Flavours

Track Classification: Heavy Flavours (Charm, Beauty and Top)