



Contribution ID: 284

Type: **not specified**

Towards the $N^3\text{LO}$ evolution of parton distributions

Thursday, April 19, 2018 9:40 AM (20 minutes)

We present a status report on calculations for the four-loop splitting functions in perturbative QCD, which will pave the way to future determination of $N^3\text{LO}$ parton distribution functions of hadrons. In the large- N_c limit, the exact four-loop contribution to the flavour non-singlet splitting functions has been obtained. For the remaining large- N_c suppressed terms, we provide approximate expressions that are sufficient for phenomenological applications. The status of the calculations in the flavour-singlet sector will be also briefly discussed.

Primary author: UEDA, Takahiro

Presenter: UEDA, Takahiro

Session Classification: WG1: Structure Functions and Parton Densities