ID de Contribution: **17**   Type: **Non spécifié**

The inclusion of theory uncertainties in NNLO and N3LO NNPDF fits

mardi 16 avril 2024 10:30 (15 minutes)

We include uncertainties due to missing higher order corrections to QCD computations (MHOU) used in the determination of parton distributions (PDFs) in the recent NNPDF4.0 set of PDFs. We use our previously published methodology, based on the treatment of MHOUs and their full correlations through a theory covariance matrix determined by scale variation, now fully incorporated in the new NNPDF theory pipeline. We assess the impact of the inclusion of MHOUs on the NNPDF4.0 central values and uncertainties. We also show how this formalism can be used to produce approximate N3LO PDF sets, using N3LO ingredients when they are known and assessing the impact of the unknown ingredients through a theory covariance matrix.

Auteur principal: BARONTINI, Andrea (University of Milan)

Orateur: BARONTINI, Andrea (University of Milan)

Classification de Session: Methods and tools

Classification de thématique: Methods and tools