Contribution ID: **59** Type: **not specified**

Global extraction of unpolarized quark TMDs at N3LL

Wednesday 2 November 2022 14:40 (15 minutes)

In this talk we present the most recent extraction of unpolarized transverse-momentum-dependent (TMD) parton distribution functions (PDFs) and TMD fragmentation functions (FFs) from global data sets of Semi-Inclusive Deep-Inelastic Scattering (SIDIS), Drell-Yan and Z boson production. The fit is performed at the N3LL logarithmic accuracy in the resummation of qT-logarithms and features flexible non-perturbative functions, which allow to reach a very good agreement with the experimental data. In particular, we address the tension between the low-energy SIDIS data and the theory predictions, and explore the impact of the precise LHC data on the fit results.

Primary authors: BOZZI, Giuseppe (University and INFN, Cagliari); BACCHETTA, Alessandro (University of Pavia and INFN); BERTONE, Valerio (NIKHEF); BISSOLOTTI, Chiara (Università di Pavia and INFN); RADICI, Marco (INFN - Pavia); SIGNORI, Andrea (University of Turin and INFN); MATTEO, Cerutti (University and INFN, Pavia)

Presenter: BOZZI, Giuseppe (University and INFN, Cagliari)

Session Classification: TMD determination