

Towards mini-global parton-branching TMD fits

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In the parton branching (PB) approach, collinear and TMD parton densities have been determined by fits to inclusive deep inelastic scattering (DIS) HERA data. This method allows one to simultaneously take into account soft-gluon emission and the transverse momentum recoils in the parton branchings along the QCD cascade. The latter leads to a natural determination of the TMD PDFs in a proton. A crucial development will be to include data from other measurements in a wider kinematic range in order to constrain the TMD PDFs and gain sensitivity to intrinsic transverse momentum contributions. We present preliminary results at NLO for PB TMD fits using the same HERAI+II inclusive DIS, plus HERA jet data and LHC W/Z and $t\bar{t}$ data. The results are compared to the HERAPDF2.0 predictions and a prospect of including other LHC data sets is discussed.

Submitted on behalf of a Collaboration?

No

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