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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 new development is the inclusion of 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 the results at NLO for global PB TMD fits using the same HERAI+II inclusive DIS, plus HERA jet, Tevatron and fixed target and LHC W/Z data. The global TMD densities are used in the cascade3 Montecarlo event generator to predict observables at different energies.

Submitted on behalf of a Collaboration?

No

Participate in poster competition?

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