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Global extraction of unpolarized Transverse Momentum Distributions

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We present a global extraction of unpolarized Transverse Momentum Dependent (TMD) Parton Distribution Functions (PDFs) and Fragmentation Functions (FFs) from two different types of processes: Semi-Inclusive Deep Inelastic Scattering (SIDIS) and Drell–Yan (DY). The analysis is performed in the TMD factorization framework and is based on data from several experiments and kinematic ranges. The extraction reaches the state-of-the art perturbative accuracy of N^3LL^- .

We discuss the introduction of (pre-computed) normalization coefficients for SIDIS data. The fit is performed taking into account correlated and uncorrelated uncertainties and we found that present data are very well described by our choice of non-perturbative functions.

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