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New insights on flavor dependence in TMD extractions from global fits

Thursday, 30 May 2024 11:00 (30 minutes)

In this talk, we present the latest results by the MAP Collaboration about the extraction of unpolarized quark Transverse-Momentum-Dependent Distributions (TMD PDFs) and Fragmentation Functions (TMD FFs) from global fits of Drell-Yan and Semi-Inclusive Deep-Inelastic Scattering (SIDIS) data sets. In particular, we discuss the impact of the introduction of flavour dependence in the nonperturbative models. We obtain significant deviations of the shape of the extracted TMDs among different quarks, suggesting that the 3D momentum distribution of quarks inside the proton depends on the flavour.

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