

# TMD distributions: collinear PDFs and flavour dependence

*Tuesday, May 23, 2023 9:00 AM (20 minutes)*

In global extractions of transverse momentum dependent (TMD) distributions, the TMDs match the collinear parton density functions (PDF) in the limit of small transverse distances. The use of different PDF sets is one of the sources of discrepancy among TMD sets available. In this talk we discuss the influence of the PDF choice on the determination of unpolarized TMDPDFs and the description of TMD Drell-Yan-pair and Z-boson production data. To this end we perform the fit with the same functional form for the non-perturbative components of the TMDPDFs and CS kernel, matched to different sets of collinear PDFs. We find that the PDF choice biases the extraction of TMDPDF; however this bias is alleviated once the PDF uncertainty is taken into account, and if we allow the non-perturbative TMD profile to be flavour-dependent. Taking into account these two features improve the agreement between theory and experiment, provide a more realistic uncertainty for TMD distributions than previously extracted, and should be considered in future global analyses

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**Session Classification:** TMDs