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TMDPDFs in twisted mass lattice QCD

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Advancements in LaMET have made it possible to extract the transverse momentum dependent parton distribution functions (TMDPDFs) from first principles calculations. In this work, we calculate the two main ingredients necessary, the quasi-beam function and the soft function. We investigate the non-perturbative renormalization of these objects. Finally, we present results for the TMDPDF in twisted mass lattice QCD.

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