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## Nucleon TMDPDFs within the twisted mass fermion formulation of lattice QCD

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Using large momentum effective theory it is possible to calculate transverse momentum dependent parton distribution functions (TMDPDFs) from first principle in lattice QCD. In this work, we present results for the 3 main constituents of the TMD Parton distribution functions, namely the quasi-TMDPDF, the Collins-Soper kernel and the reduced soft function. We construct the physical TMDPDF using a twisted fermion mass ensemble of size  $24^3 \times 48$  with a pion mass of 350 MeV.

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