

Gluon TMDs in the small-x limit

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We investigate the gluon transverse momentum dependent (TMD) correlators as Fourier transforms of matrix elements of nonlocal operator combinations. At the operator level these correlators include both field strength operators and gauge links bridging the nonlocality. In contrast to the collinear PDFs, the gauge links are no longer unique for TMD PDFs (TMDs) and also Wilson loops lead to nontrivial effects. Single Wilson loop operators become important when one considers the small-x limit for gluon TMDs. We look at gluon TMDs for unpolarized, vector polarized, and tensor polarized targets. We also propose to standardize the parametrizations for gluon TMD correlators using completely symmetric, traceless tensors in k_T , which is useful for applications related to TMD evolution.

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