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Small-x (generalized) TMD gluon distributions in the Color Glass Condensate

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The small-x behavior of transverse-momentum-dependent (TMD) gluon distributions can be studied in the Color Glass Condensate (CGC) formalism. The cross section for forward dijet production in proton-nucleus collisions involves eight different TMD distributions, including all TMDs that have been identified in other processes so far. For each of these distributions we determine their operator definitions at small-x and finite N_c as CGC correlators of Wilson lines, and we study their JIMWLK evolution towards small-x. This parallel between TMD functions and CGC correlators can be extended to generalized TMDs (GTMDs) as well, and can give an insight into the angular correlations between impact parameter and dipole size in the CGC framework. We present work in progress on small-x GTMDs that appear in diffractive processes in DIS and proton-nucleus collisions.

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