

DIS 2015 - XXIII. International Workshop on Deep-Inelastic Scattering and
Related Subjects

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Rapidity evolution of gluon TMD from low to moderate x

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A TMD factorization generalizes the usual concept of parton density by allowing PDFs to depend on intrinsic transverse momenta in addition to the usual longitudinal momentum fraction variable. The available analysis of TMD evolution is mostly restricted to the evolution of quark TMDs at moderate x . However at high collider energies the majority of produced particles will be small- x gluons. In this case one has to understand transition between this two limits. In the talk we will study how the rapidity evolution of gluon transverse momentum dependent distribution changes from nonlinear evolution at small $x \ll 1$ to linear double-logarithmic evolution at moderate $x \sim 1$.

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