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Saturation vs Sudakov effects in SIDIS at small x

We calculate the Next to Leading Order (NLO) corrections to single inclusive hadron production in DIS (SIDIS) in the forward rapidity region using the Color Glass Condensate (CGC) formalism. We then consider the kinematic region where the transverse momentum of the produced hadron is much less than the virtuality of the photon and show that there are large (Sudakov) logs originating from this kinematics. We then proceed to derive the Collins-Soper-Sterman (CSS) evolution equation using the background field methods employed in the CGC formalism.

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