

# XXVIII International Workshop on Deep Inelastic Scattering and Related Subjects



Contribution ID: 39

Type: **Contributed Talk**

## Finite $N_c$ corrections to NLO BK evolution

*Tuesday, March 24, 2020 4:30 PM (18 minutes)*

In the Color Glass Condensate effective theory framework, the evolution of high energy scattering amplitudes with collision energy is given by the Balitsky-Kovchegov (BK) equation. It is usually derived from the JIMWLK hierarchy in the large- $N_c$  limit. The next-to-leading order evolution equation for the 2-point correlator, related to the total deep inelastic scattering cross section, involves 6-point correlators of Wilson lines. We present a fully analytic calculation of these correlators in the finite  $N_c$  case, using the Gaussian Truncation approximation. We use these results to find the relative importance of finite  $N_c$  corrections to the next-to-leading order evolution equation. We show numerically that the finite  $N_c$  corrections are negligible, as expected.

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**Session Classification:** Small-x, Diffraction and Vector Mesons

**Track Classification:** Small-x, Diffraction and Vector Mesons