Contribution ID: **387** Type: **Recorded Flash Talk**

Finite Nc corrections in the Balitsky-Kovchegov equation at next-to-leading order

The Colour Glass Condensate effective field theory is a useful framework for studying heavy ion collisions at ultra-relativistic energies. In this framework, we study the rapidity evolution of Wilson lines that appear explicitly in cross section expressions. The next-to-leading order BK (Balitsky-Kovchegov) equation for the 2-point Wilson line correlator involves 6-point correlators of Wilson lines. These correlators are typically calculated only in the large-Nc limit. I will present a fully analytic calculation of these correlators in the finite-Nc case, using the Gaussian Approximation. We use these results to find the relative importance of finite-Nc corrections to the next-to-leading order (NLO) evolution equation. I will also present some results from our study of the correlators that appear in the NLO BK equation and in the equation itself.

Primary authors: RAMNATH, Andrecia (University of Jyväskylä); LAPPI, Tuomas (University of Jyvaskyla); MÄNTYSAARI, Heikki (University of Jyväskylä)

Presenter: RAMNATH, Andrecia (University of Jyväskylä)

Session Classification: Recorded Flash Talk

Track Classification: Small-x, Diffraction and Vector Mesons