Contribution ID: **39**   Type: **not specified**

Unequal Rapidity Correlators in the Dilute Limit of JIMWLK

Tuesday 20 March 2018 16:55 (25 minutes)

Within the Colour Glass Condensate effective field theory, the JIMWLK equation can also be used to describe the energy evolution of long-range rapidity correlations in nuclear collisions. The projectile interaction with the target classical field is described by Wilson lines. It is useful for numerical implementations to study JIMWLK evolution as a stochastic process. A Langevin equation then governs the evolution of the Wilson lines. I will present a diagrammatic interpretation of the long range rapidity correlators in the Langevin picture. By evolving the classical field in the direct and complex conjugate amplitudes, we have studied the cross section for two-gluon production. In the dilute limit, the rapidity correlations from the Langevin framework map to the transverse momentum correlations that appear in BFKL evolution. This link will give some insight into the interpretation of BFKL evolution as a stochastic process.

Authors: LAPPI, Tuomas (University of Jyvaskyla); RAMNATH, Andrecia (University of Jyvaskyla)

Presenter: RAMNATH, Andrecia (University of Jyvaskyla)