



Contribution ID: 49

Type: **plenary**

Gluon dynamics and k_t factorization at small- x

Thursday, 7 August 2014 11:30 (30 minutes)

In this talk, I would like to discuss the recent theoretical progress towards the exploration of the gluon saturation phenomenon in pA collisions at both RHIC and the LHC.

Two important pillars of this exploration are the single inclusive forward hadron productions and forward di-hadron correlations, which have both been computed up to one-loop order within the small- x k_t factorization formalism. This has helped us to establish an effective k_t factorization at small- x . Furthermore, the one-loop calculation for dihadron productions in pA collisions shows that there is a new type of large logarithm, which is known as the Sudakov factor, arising in the back-to-back correlation limit. In addition, detailed numerical study for the single inclusive hadron production at next-to-leading order provides us good description of the RHIC data in dAu collisions.

Primary author: XIAO, Bowen (Central China Normal University)

Presenter: XIAO, Bowen (Central China Normal University)

Session Classification: Plenary session 7