Int. Conference on the Initial Stages of High-Energy Nuclear Collisions



Contribution ID: 101

Type: not specified

Solution of the NLO BFKL Eq. and analytic NLO $\gamma^* - \gamma^*$ -cross section from High-Energy OPE in Wilson-lines

Thursday 12 September 2013 15:30 (20 minutes)

I will present the solution of the next-to-leading order (NLO) BFKL equation obtained by constructing its eigenfunctions perturbatively, using an expansion around the LO BFKL (conformal) eigenfunctions. This method can be used to construct the solution of the BFKL equation with the kernel calculated to an arbitrary order in the coupling constant. Then, using the solution of the NLO BFKL equation and the NLO pomeron impact factor recently calculated by using the high-energy Operator Product Expansion (OPE) in Wilson lines, I will construct the analytic NLO cross section of γ^* - γ^* -scattering process at high-energy.

Primary author: CHIRILLI, Giovanni Antonio (The Ohio State University)
Co-author: KOVCHEGOV, Yuri (The Ohio State University)
Presenter: CHIRILLI, Giovanni Antonio (The Ohio State University)
Session Classification: Parallel talks - Session 1B