Contribution ID: **338** Type: **not specified**

Lipatov's effective action, color glass condensate and classical gluon field of relativistic color charge

Wednesday, 5 April 2017 16:40 (20 minutes)

We discuss an application of formalism of Lipatov's effective action for the calculation of classical field of relativistic color charge, similarly to the done in CGC approach.
The equations of motion are solved in the LO and NLO approximation and the LO results are compared with the calculations performed in the CGC
framework. It is demonstrated that the CGC results for the classic field are reproduced in the calculations.
Additionally, the obtained gluon field solutions are considered as solution of classical equations of motion in the presence of external reggeon fields.
The possible applications of the NLO solution in the Lipatov's effective action and CGC frameworks are discussed as well.

Primary authors: Mr BONDARENKO , Sergey (Ariel University); BONDARENKO, Serge (Joint Institute for Nuclear Research (RU)); BONDARENKO, Serge

Presenter: Mr BONDARENKO , Sergey (Ariel University)

Session Classification: WG2 Low x and Diffraction

Track Classification: WG2) Low x and Diffraction