Contribution ID: **68** Type: **Parallel Session Talk**

Non-linear QCD dynamics and exclusive production in ep collisions

Thursday 22 July 2010 17:45 (13 minutes)

The exclusive processes in electron-proton (ep) interactions are an important tool to investigate the QCD dynamics at high energies as they are in general driven by the gluon content of proton which is strongly subject to parton saturation effects. In this paper we compute the cross sections for the exclusive vector meson production as well as the deeply virtual Compton scattering (DVCS) relying on the color dipole approach and considering the numerical solution of the Balitsky-Kovchegov equation including running coupling corrections. We show that the small-x evolution given by this evolution equation is able to describe the DESY-HERA data and is relevant for the physics of the exclusive observables in future electron-proton colliders and in photoproduction processes to be measured in coherent interactions at the LHC.

Primary author: Dr MACHADO, Magno (Universidade Federal do Rio Grande do Sul)

Presenter: Dr MACHADO, Magno (Universidade Federal do Rio Grande do Sul)

Session Classification: 04 - Hadronic Structure, Parton Distributions, soft QCD, Spectroscopy

Track Classification: 04 - Hadronic Structure, Parton Distributions, soft QCD, Spectroscopy