Contribution ID: **353** Type: **not specified**

Parton dynamics and colour condensates

Monday, 3 September 2018 12:00 (30 minutes)

A detailed, multidimensional imaging of protons and nuclei at high energy is one of the main goals of Quantum Chromodynamics. We review two complementary theories that study the dynamics of partons (quarks and gluons) in protons and nuclei when they are accelerated to large velocities: the factorization approach with multidimensional distribution functions and the Colour Glass Condensate theory. Both frameworks give independent information on the mixed, momentum and position structure of ultra-relativistic particles. Nevertheless, the complexity of the problem requires a consistent and inclusive description that will merge together and combine the advantages of the two approaches. We review recent progress along these lines and we present phenomenological results derived from the connection between the two theoretical frameworks.

Primary author: PETRESKA, Elena (VU/Nikhef)

Presenter: PETRESKA, Elena (VU/Nikhef)

Session Classification: Plenary