

XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



Contribution ID: 468

Type: **Contributed Talk**

Asymptotics of hard diffraction

Wednesday, 14 April 2021 10:54 (18 minutes)

We show that the cross section for the diffractive dissociation of a small onium off a large nucleus conditioned to a minimum rapidity gap can be identified to a simple classical observable on the stochastic process representing the quantum evolution of the onium in the QCD dipole model. This holds true in the parametric limit defining the geometric scaling region. Such an identification authorizes the derivation of an analytical expression for the asymptotic gap distribution. Interestingly enough, events in which a large number of dipoles interact simultaneously bring a sizable contribution to the diffractive cross sections, which we are able to characterize quantitatively.

Primary authors: Prof. MUELLER, Alfred H. (Columbia University); Mr LE, Anh Dung (CPHT - Polytechnique); MUNIER, Stéphane (CPHT, CNRS, École polytechnique, IP Paris)

Presenter: MUNIER, Stéphane (CPHT, CNRS, École polytechnique, IP Paris)

Session Classification: Small-x, Diffraction and Vector Mesons

Track Classification: Small-x, Diffraction and Vector Mesons