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## **A model for high energy rho meson lepto-production based on collinear factorization and dipole models**

*Wednesday, 24 April 2013 16:30 (20 minutes)*

We discuss the high-energy exclusive electroproduction of rho mesons, for both longitudinal and transversal polarizations. The theoretical description of the cross-section is based on the perturbative calculations of the transition  $\gamma_L \rightarrow \rho_L$  and  $\gamma_T \rightarrow \rho_T$ , i.e. impact factors, within the collinear factorization of QCD. We show how these impact factors can be related to the dipole-nucleon scattering amplitude. This permits us to rely for phenomenological estimations on several existing models for the dipole/nucleon cross-section, already constrained by the fits performed on DIS inclusive and diffractive structure functions. We will then present the comparison of our predictions with HERA data.

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