Diffraction and Low-x 2018



Contribution ID: 55 Type: **not specified**

Diffractive dijets: breakdown of factorization

Data on diffractive dijet production reveal a dramatic failure of predictions based on diffractive factorization. The main source of factorization breaking is a principal difference between the mechanisms of diagonal diffraction in DIS and off-diagonal diffractive hadronic collisions. Single-diffractive excitation of two high-pT back-to-back jets is calculated within the dipole approach. The dominant mechanism of this diffractive process is semihard semisoft, differently from dijet production in DIS, which is hard dominated. Results of calculation are in a good accord with data.

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Track Classification: QCD and parton saturation physics