Contribution ID: **538** Type: **Contributed Talk**

Sudakov effects in TMD gluon distributions and their implications on jet production

Thursday, 15 April 2021 10:54 (18 minutes)

I shall discuss phenomenological consequences of merging the proper QCD Sudakov resummation with small-x effects, which allows us to compute gluon distributions that depend on longitudinal momentum, transverse momentum and the hard scale of the process. The small-x resummation is included by means of the BK equation supplemented with a kinematic constraint and subleading corrections. The new gluon densities are then used to calculate predictions for central-forward dijet production at LHC energies within the framework of high energy factorization. The results are tested against CMS data and compared with earlier predictions where Sudakov effects came from naive modeling.

Primary author: SAPETA, Sebastian

Presenter: SAPETA, Sebastian

Session Classification: Structure function and parton densities

Track Classification: Structure Functions and Parton Densities