

XXVIII International Workshop on Deep Inelastic Scattering and Related Subjects



Contribution ID: 230

Type: **Contributed Talk**

Visualizing Factorization Regions in SIDIS

Wednesday, 25 March 2020 17:00 (20 minutes)

Deep Inelastic Scattering (DIS) and especially Semi-Inclusive Deep Inelastic Scattering (SIDIS) are leading processes in the study of hadron structure. The theoretical treatments of these processes involve approximations which only hold true in specific regions of kinematics, each region corresponding to a different physical picture. Ratios have been defined to be representative of terms which are approximated as small in well known factorization theorems. Using these ratios, we define a way to quantify confidence in the proximity to a given factorization region, given assumptions about parton properties. Ultimately, these results will for the first time give a well defined methodology for determining confidence that some kinematical configuration may be described in terms of TMDs, given assumptions about partonic kinematics.

Primary author: Mr GORDON, Sterling (Old Dominion University)

Presenter: Mr GORDON, Sterling (Old Dominion University)

Session Classification: Spin Physics

Track Classification: Spin Physics