Parton Distributions and Lattice Calculations (PDFLattice 2024)

Contribution ID: 13 Type: Talk

Collins-Soper kernel from collinear parton correlators

Tuesday 19 November 2024 13:50 (20 minutes)

Inclusive DIS at large Bjorken x is revisited to highlight the importance of tracking off-lightcone effects in the proof of factorization theorems, even collinear ones. In DIS at threshold, in particular, the relevant physics develops around two opposite light-cone directions just like in TMD SIDIS, and the Collins Soper kernel emerges as a universal function in the rapidity evolution of the relevant correlators. The new factorization theorem thus offers a novel avenue for lattice calculations of the Collins-Soper kernel with collinear operators, and bridges different fields and communities.

Authors: ACCARDI, Alberto (Christopher Newport U. and Jefferson Lab); CERUTTI, Matteo (Christopher Newport U. and Jefferson Lab); SILVA ROCHA COSTA, Caroline (Jefferson Lab); SIGNORI, Andrea (University of Turin and INFN); SIMONELLI, Andrea (ODU Research Foundation and JLab)

Presenter: ACCARDI, Alberto (Christopher Newport U. and Jefferson Lab)

Session Classification: Session 7