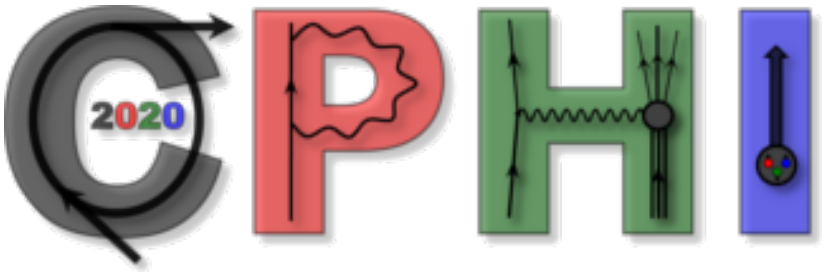

Contribution ID: **39** Type: **not specified**

QCD factorization and hadron production near threshold

Thursday 6 February 2020 11:10 (25 minutes)

All observed hadrons are color neutral, while they are all emerged from colored quarks and gluons (or partons) in high energy collisions. The COMPASS collaboration published precise data on production cross section of charged hadrons in lepton-hadron semi-inclusive deep inelastic scattering, showing almost an order of magnitude larger than next-to-leading order QCD calculations when hadrons were produced near the threshold. In this talk, I will discuss QCD factorization that is necessary for connecting the produced hadrons to colored partons, explore the transition between the inclusive and exclusive production when hadrons are produced with a low multiplicity, and quantify our capability to measure the three-dimensional hadron structure at the newly upgraded CEBAF at JLab and the future Electron-Ion Collider.

Author: Dr QIU, Jianwei (Jefferson Lab)

Presenter: Dr QIU, Jianwei (Jefferson Lab)

Session Classification: Morning