

XXVIII International Workshop on Deep Inelastic Scattering and Related Subjects



Contribution ID: 276

Type: **Contributed Talk**

Charting the future lattice-PDF synergy

Tuesday, March 24, 2020 12:45 PM (15 minutes)

Lattice QCD and global PDF analyses have both made significant strides in recent years. Much of this progress owes to the growing availability of computational resources as well as steady theoretical advances in lattice gauge theory and perturbative QCD. In this context, it is increasingly suggested that the output of lattice QCD calculations could serve as important input to global fits for PDFs (and related quantities). In this talk, I will discuss this possibility, demonstrating the important role global analyses will play in benchmarking improvements in lattice calculations. I will stress that, going forward, the relationship between lattice QCD and global analyses will provide a powerful basis to improve knowledge of hadron tomography in the EIC era.

Primary author: HOBBS, Timothy (Southern Methodist University and EIC Center@JLab)

Co-authors: Dr WANG, Bo-Ting (Southern Methodist U.); NADOLSKY, Pavel (Southern Methodist University); OLNESS, Fredrick (SMU)

Presenter: HOBBS, Timothy (Southern Methodist University and EIC Center@JLab)

Session Classification: Structure function and parton densities

Track Classification: Structure Functions and Parton Densities