

DIS2023: XXX International Workshop on Deep-Inelastic Scattering and Related Subjects



Contribution ID: 321

Type: **Plenary talk**

Current status and future prospects of using Lattice-QCD inputs in the global analysis

Monday 27 March 2023 17:15 (30 minutes)

The Parton Distribution Functions (PDFs), as an essential ingredient of realistic cross section calculation in the framework of perturbative QCD, describe the x -dependent structure of hadron based on global analysis amount hard-scattering measurements. As a weakness, the PDFs from global analysis receive larger uncertainty when data is scarce. Starting from first principle operator definitions of PDFs, PDF-related quantities are computed in the framework of Lattice QCD, and they provide comparisons and supplements for PDF from global analysis. In this presentation, we will talk about the current status and future prospects of PDF global analysis with Lattice-QCD inputs.

Participate in poster competition?

Submitted on behalf of a Collaboration?

Primary author: Dr HOU, Tie-Jiun

Presenter: Dr HOU, Tie-Jiun

Session Classification: Plenaries

Track Classification: Plenary sessions