

# XXVIII International Workshop on Deep Inelastic Scattering and Related Subjects



Contribution ID: 290

Type: **Invited Talk**

## High-precision PDFs and DIS experiments for electroweak observables

*Wednesday, 25 March 2020 14:30 (25 minutes)*

In preparation for the era of the High-Luminosity LHC, it will be crucial to enhance the precision of theoretical predictions for BSM-sensitive observables in the electroweak and Higgs sectors. In many cases, such as the extraction of the  $W$ -boson mass, contemporary PDF uncertainties are a dominant limitation in the quest to achieve the necessary precision. In this talk, I will review this problem and deploy several novel analysis techniques to parse PDF uncertainties relevant for electroweak precision observables at the LHC. I will also highlight the important role to be played by next-generation measurements from DIS colliders like the Electron-Ion Collider (EIC).

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

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

**Session Classification:** Electroweak Physics and Beyond the Standard Model

**Track Classification:** Electroweak Physics and Beyond the Standard Model