Contribution ID: **446** Type: **Contributed Talk**

Extraction of Spin-Averaged PDFs and Nuclear Effects at High x

Tuesday, 13 April 2021 12:00 (18 minutes)

We present a new global QCD analysis of inclusive DIS data, using a Monte Carlo approach to extract the spin-averaged PDFs. We focus on the high-x, low-W region, where effects from power corrections, such as target mass corrections (TMCs) and higher twists, are important. We focus in particular on the quantification of the nuclear corrections, including Fermi motion, binding and nucleon off-shell effects, in the deuterium nucleus. We quantify the effects on the extracted PDFs and the nuclear corrections from various theoretical treatments of the power corrections and nuclear wave functions.

Primary authors: COCUZZA, Christopher (Temple University); Dr ETHIER, Jacob (Nikhef); Mr MELNITCHOUK, Wally (Jefferson Lab); METZ, Andreas (Temple University); Mr SATO-GONZALEZ, Nobuo (Jefferson Lab)

Presenter: COCUZZA, Christopher (Temple University)

Session Classification: Structure function and parton densities

Track Classification: Structure Functions and Parton Densities