Contribution ID: **116** Type: **not specified**

The EPPS16 nuclear PDFs

Tuesday, 4 April 2017 17:00 (17 minutes)

We report on EPPS16 - the first analysis of NLO nuclear PDFs where LHC p-Pb data (Z, W, dijets) have been directly used as a constraint. In comparison to our previous fit EPS09, also data from neutrino-nucleus deeply-inelastic scattering and pion-nucleus Drell-Yan process are now included. Much of the theory framework has also been updated from EPS09, including a consistent treatment of heavy quarks in deeply-inelastic scattering. However, the most notable change is that we no longer assume flavour-blind nuclear modifications for valence and sea quarks. This significantly reduces the theoretical bias. All the analysed data are well reproduced and the analysis thereby supports the validity of collinear factorization in high-energy collisions involving heavy nuclei. However, flavour by flavour, the uncertainties are still rather large.

Primary authors: Prof. ESKOLA, Kari J. (University of Jyvaskyla); Mr PAAKKINEN, Petja (University of Jyväskylä); Dr PAUKKUNEN, Hannu (University of Jyväskylä); SALGADO LOPEZ, Carlos Albert (Universidade de Santiago de Compostela (ES))

Presenter: Dr PAUKKUNEN, Hannu (University of Jyväskylä)

Session Classification: WG1 Structure Functions and Parton Densities

Track Classification: WG1) Structure Functions and Parton Densities