

# DIS 2015 - XXIII. International Workshop on Deep-Inelastic Scattering and Related Subjects

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## New CTEQ-Jefferson Lab (CJ) analysis of parton distributions

*Tuesday, 28 April 2015 09:45 (25 minutes)*

We present preliminary results of a new global QCD analysis of PDFs from the CTEQ-Jefferson Lab Collaboration (dubbed “CJ15”), which includes several new data sets and recent theoretical developments. In particular, we study the constraints from new D0 data on  $W$  boson asymmetries on the  $d/u$  PDF ratio at large  $x$ , and, indirectly, on the models of nuclear corrections in the deuteron. The analysis also considers for the first time the impact of Jefferson Lab data on the free neutron/deuteron structure function ratio at large  $x$ , and reanalyzes the light antiquark asymmetry in the proton from Drell-Yan data using more flexible parametrizations and nuclear corrections to deuterium cross sections. The results provide a new set of baseline PDFs which can be used to more reliably calibrate the effect of future data from the LHC.

**Primary authors:** Prof. ACCARDI, Alberto (Hampton University/Jefferson Lab); Prof. CHRISTY, Eric (Hampton University); Prof. OWENS, Jeff (Florida State University); Mr BRADY, Lucas (Jefferson Lab and University of California, Santa Barbara); Dr SATO, Nobuo (Jefferson Lab); Mr EHLERS, Peter (Jefferson Lab and University of Washington); Prof. MONAGHAN, Peter (Christopher Newport University); Dr KEPPEL, Thia (Jefferson Lab); Dr MELNITCHOUK, Wally (Jefferson Lab)

**Presenter:** Dr MELNITCHOUK, Wally (Jefferson Lab)

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