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New CTEQ-Jefferson Lab (CJ15) analysis of parton distributions (20+10min)

Friday, 4 September 2015 11:30 (30 minutes)

We present the 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 effects of future data from the LHC.

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