

CTEQ Fall meeting 2024



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New Measurements of the Deuteron to Proton F_2 Structure Function Ratio at Hall C, Jefferson Lab

Friday 22 November 2024 10:00 (20 minutes)

Nucleon structure functions, measured in lepton-nucleon scattering, are key to understanding partonic dynamics. At high parton momenta, extracting parton distributions becomes challenging due to non-perturbative effects and limited precision data. Neutron structure and d-quark distributions are particularly difficult to extract due to nuclear corrections required for deuteron-based measurements. Recent experiments at Jefferson Lab, including E12-10-002 in Hall C, have significantly reduced these uncertainties by improving deuteron-to-proton cross-section measurements at large Bjorken- x . These results enhance precision and provide valuable insights for refining global parton distribution function fits.

Would you be interested in giving a 5-minutes flash talk?

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Session Classification: Public Session