

Physics Division Seminar

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PDF Flavor Determination and the nCTEQ PDFs

Host: José Repond

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We use nCTEQ nPDFs with uncertainties to identify measurements which have a potential impact on nuclear corrections and flavor differentiation. As the proton flavor determination is dependent on nuclear corrections, this information can also help improve proton PDFs. In particular, recent LHC W/Z vector boson production data in proton-lead and lead-lead collisions are quite sensitive to heavier flavors (especially the strange PDF). This complements the information from neutrino-DIS data. We also survey upcoming future facilities such as EIC, LHeC, and LHC upgrades and use a new tool, PDFSense, to estimate the impact.