

Abstract Submitted
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Inclusive Electron-Nucleon Scattering Deuterium to Hydrogen Cross Section Ratio¹ ELIZABETH MOORE, James Madison University, THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY EXPERIMENT E12-10-002 TEAM — Jefferson Lab experiment E12-10-002 was conducted in 2018 with the goal of studying inclusive electron-nucleon scattering (using liquid hydrogen and deuterium targets) at large Bjorken x and intermediate Q^2 . This is a range that has not been studied often and would benefit greatly from more data. The experimental data was collected in Hall C using the High Momentum Spectrometer (HMS) and Super High Momentum Spectrometer (SMHS) separately and will help shed light on quark interactions inside the nucleon. My research focuses on analyzing the HMS data which covers the highest Q^2 range probed by this experiment. I will present the deuterium to hydrogen cross section ratio at the most forward HMS angle and compare it with the equivalent SHMS result also from this experiment. My short to midterm goal is to complete the analysis of the large angle HMS data.

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