Abstract Submitted
for the APR21 Meeting of
The American Physical Society

Spectrometer Optics Calibration for PRex/CRex Experiment SIYU JIAN, NILANGA LIYANAGE, Univ of Virginia, JEFFERSON LAB PREX COLLABORATION COLLABORATION — The PRex-II and CRex experiments measure the model-independent RMS radius of the neutron skin thickness for ^{208}Pb and ^{48}Ca nuclei respectively using parity-violating asymmetry in elastic electron scattering. The neutron skin thickness is an important parameter that has a broad impact on modeling the neutron star structure, heavy iron collisions, and atomic parity violation experiments. PRex and CRex experiments were performed in Jefferson Lab Hall A with the High resolution Spectrometer(HRS) pair. In this report, I will discuss the Optics Calibration of the High Resolution Spectrometers, and the impact of the spectrometer optics on the neutron skin thickness results.

Siyu Jian
Univ of Virginia

Date submitted: 08 Jan 2021 Electronic form version 1.4