

Abstract Submitted
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Polarized Source Setup and Helicity Correlated Beam Asymmetry Results for PREX-2¹ SACHINTHANI PREMATHILAKE, UNIVERSITY OF VIRGINIA, PREX COLLABORATION — Parity-violating electron scattering provides a clean probe of neutron densities that is model independent and free from most of the strong interaction uncertainties. The PREX-2 and CREX experiments that ran at Jefferson lab aimed to measure the nucleon skin thickness in ²⁰⁸Pb and ⁴⁸Ca via parity violating electroweak asymmetry in the elastic scattering of longitudinally polarized electrons. One of the crucial systematic uncertainty that both of these experiments were sensitive to is the non-parity violating asymmetries that resulted from the helicity-correlated false asymmetries in the polarized electron beam. This talk will describe the polarized source setup and helicity-correlated beam asymmetry results for PREX-2.

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