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Measurements of the neutron skin of ²⁰⁸Pb from parity violating electron scattering JONATHAN WEXLER, University of Massachusetts-Amherst, PREX COLLABORATION — We present the results for the thickness of the neutron skin of ²⁰⁸Pb from parity violating scattering asymmetry measurements using the Jefferson Lab polarized electron beam in experimental Hall A. Through parity violating elastic e-²⁰⁸Pb reactions, the extraction of neutron distributions can be performed with relatively few theoretical uncertainties when compared to hadronic scattering techniques, providing clean access to previously poorly constrained parameters. A measurement of the ²⁰⁸Pb neutron skin provides insight into topics spanning the structure and symmetry energy of neutron rich nuclei and dense nuclear matter, and the equations of state for neutron skin thickness of ²⁰⁸Pb as well as planned measurements for improved precision and the prospects for ⁴⁸Ca.

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