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Recent Results in Parity-Violating Electron Scattering at Jefferson Lab: PREX and HAPPEX-III CHUN-MIN JEN, Syracuse University, PREX COLLABORATION — The parity-violating asymmetry A_{PV} in electron scattering from the ²⁰⁸Pb nucleus is cleanly sensitive to the neutron radius R_n . A precision measurement of R_n would have important implications for the understanding of nuclear structure, and be a powerful constraint on the symmetry energy $S_{\nu}(n)$ of neutron-rich nuclear matter, including neutron stars. The PREX collaboration has completed a first run, measuring R_n to a precision of $\sim 2.5\%$ and providing the first electroweak evidence for the neutron skin of a heavy nucleus. Results from this measurement, and prospects for more precise future measurements, will be discussed.

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