

Neutron Skins of ^{48}Ca and ^{208}Pb from Parity-Violating Scattering at JLab

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New experimental results from CREX and PREX on the weak form factors and neutron skins will be presented. The Calcium(Lead) Radius Experiment CREX(PREX) ran in 2019-2020 in Hall A at the Thomas Jefferson National Accelerator Facility (JLab). The experiments measured the parity-violating asymmetry in the elastic scattering of longitudinally polarized electrons from ^{48}Ca and ^{208}Pb at low Q^2 and forward angles. The Z boson that mediates the weak neutral interaction couples mainly to neutrons and provides a clean, model-independent measurement of the RMS radius R_n of the neutron distribution in the nucleus. The measurements are a fundamental test of nuclear structure theory and will be compared to ab-initio theoretical calculations and nuclear models.