

Abstract Submitted
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Parity Violating Asymmetry in Elastic e-Al Scattering JOSHUA HOSKINS, Qweak Collaboration, QWEAK COLLABORATION — The Q_{weak} Experiment, which completed running May 2012 at Jefferson Lab, will provide the first direct measurement of the proton's weak charge, Q_w^p , by measuring the parity-violating asymmetry in elastic electron-proton scattering. In order to meet experimental goals, we must understand and precisely measure backgrounds which contribute to the experimental asymmetry. The most significant background contribution comes from elastic and quasielastic electron-aluminum scattering from the target windows, which constitutes a roughly 30% correction to the experimental asymmetry. Our data will provide the first measurement of the small (few parts-per-million) parity-violating asymmetry from aluminum. An overview of the experimental approach, data quality, and projected error will be given.

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