

Abstract Submitted
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The Qweak Experiment: First Determination of the Weak Charge of the Proton SCOTT MACEWAN, University of Manitoba, QWEAK COLLABORATION — Qweak part 2: The Qweak experiment at Jefferson Lab uses parity-violating electron scattering to make a precision measurement of the proton's weak charge. The experiment has recently reported a measurement of the asymmetry in $\bar{e} - p$ scattering at low $Q^2 = 0.0250 \text{ GeV}/c^2$ based on approximately 1/25 of the overall data collected in the experiment. The small Q^2 of the measurement has made possible the first determination of the weak charge of the proton, Q_W^p , by incorporating this new measurement with earlier parity violating electron scattering data at higher Q^2 to obtain hadronic corrections. The details of the analysis required to extract Q_W^p and its error from the measured asymmetry will be presented.

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