

Abstract Submitted
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Analysis status of the Q-weak experiment EMMANOUIL KARGIANTOULAKIS, University of Virginia, Q-WEAK COLLABORATION — The Q-weak Collaboration completed a challenging measurement of the parity-violating asymmetry in elastic electron-proton scattering at the Thomas Jefferson National Accelerator Facility (JLab). The initial result reported here is extracted from the commissioning part of the experiment, constituting about 4% of the full data set, and allowed for the first determination of the weak charge of the proton. The analysis of the full Q-weak data set is ongoing and expected to yield a high precision value for the weak charge, which will place significant constraints to models of physics beyond the standard model. The current status will be presented, with emphasis on analysis efforts to reduce the most important systematic uncertainties of the preliminary result.

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