

Abstract Submitted
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The Qweak Experiment: A Search for New Physics at the TeV Scale via a Measurement of the Proton's Weak Charge¹ RAKITHA BEMINIWATTHA, Ohio University, QWEAK COLLABORATION — The Qweak experiment at Jefferson Lab will measure the parity-violating elastic electron-proton scattering asymmetry at $Q^2 \simeq 0.03(\text{GeV}/c)^2$ to obtain the weak charge of the proton, Q_W^p , to an accuracy of 4%. The result will test the Standard Model prediction of the running of $\sin^2 \theta_W$ and will provide an indirect probe of new physics at TeV scale. An overview and the performance of the experiment after the first data taking run will be provided.

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