

Abstract Submitted
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Implications of the Q_{weak} Commissioning Result¹ GREG SMITH,
Jefferson Lab, THE QWEAK COLLABORATION — The commissioning results of
the Q_{weak} experiment at Jefferson Lab, which constituted approximately 4% of the
total results obtained in that experiment, were recently published (D. Androic, *et al.*
[Q_{weak} Collaboration], Phys. Rev. Lett. 111, 141803 (2013)). After a brief review
of the experiment, new, unpublished results derived from that publication will be
presented. The sensitivity of the fit used to extract the proton's weak charge to
the choice of electromagnetic form factors, to the proton radius puzzle, and to the
dipole mass used for the Q^2 evolution will be examined. The running of $\sin^2(\theta_W)$
and the experiment's mass reach will be discussed. The status of the ongoing effort
to complete the analysis of the full experiment will also be shown.

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Greg Smith
Jefferson Lab

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