Abstract Submitted
for the APR15 Meeting of
The American Physical Society

Measurement of Transverse Single-Spin Asymmetries from Elastic Electron Scattering on ^{27}Al and ^{12}C[1] KURTIS BARTLETT, College of William and Mary, QWEAK COLLABORATION — The Qweak experiment will determine the weak charge of the proton through a measurement of the parity-violating electron-proton helicity asymmetry by scattering electrons with longitudinal polarization from a liquid hydrogen target. During the running of the experiment additional data was recorded from ^{27}Al and ^{12}C targets for the purpose of determining background contributions. A small subsection of this aluminum and carbon data were taken with transversely polarized electrons for determining the effect of any remaining small transverse polarization component contributing to the parity-violating longitudinal asymmetry in the main experiment. This transverse aluminum data would lead to the first determination of the beam-normal single-spin asymmetry (BNSSA) on ^{27}Al, which would help understand an observed anomaly of a near zero BNSSA for ^{208}Pb by the PREX experiment [S. Abrahamyan, et al., Phys. Rev. Lett. 109(2012)192501]. I will present the status of our effort toward extracting the BNSSA from Qweak's ^{27}Al and ^{12}C data as well as the possible impact it will have on the current explanation of the ^{208}Pb result from the PREX experiment.

[1]This work was supported in part by the National Science Foundation under Grant No. PHY-1206053.

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Date submitted: 08 Jan 2015 Electronic form version 1.4