

Abstract Submitted  
for the DNP13 Meeting of  
The American Physical Society

**Status of the OLYMPUS Analysis**<sup>1</sup> BRIAN HENDERSON, Massachusetts Institute of Technology, OLYMPUS COLLABORATION — The OLYMPUS experiment, which completed data-taking at the DORIS  $e^+/e^-$  storage ring at DESY in Hamburg, Germany in January 2013, seeks to determine definitively the two-photon contribution to lepton-proton scattering. This effect is accessible via a precision measurement of the ratio of the  $e^+p$  and  $e^-p$  cross-sections. To achieve the desired uncertainty in the ratio measurement ( $\sim 1\%$ ), the analysis must carefully consider any possible sources of false asymmetry between beam species such as geometric effects, shifts in beam conditions, detector inefficiencies, etc. An update on the progress of the analysis, including a discussion of progress on particle tracking and determination of systematic uncertainties, will be provided.

<sup>1</sup>Work supported by DOE grant DE-FG02-94ER40818.

Brian Henderson  
Massachusetts Institute of Technology

Date submitted: 01 Jul 2013

Electronic form version 1.4