

Abstract Submitted  
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**Status of the OLYMPUS Experiment**<sup>1</sup> AXEL SCHMIDT, MIT,  
OLYMPUS COLLABORATION — The OLYMPUS Experiment finished collect-  
ing data at DESY, Hamburg, in 2013, and the analysis effort is well underway.  
The goal of the experiment is to measure the ratio of electron-proton to positron-  
proton elastic scattering cross sections with 1 percent uncertainty. Deviation in this  
ratio from unity is evidence of hard two-photon exchange, an effect which may be  
responsible for the current proton form-factor discrepancy. At OLYMPUS, alternat-  
ing beams of positrons and electrons were directed through a windowless hydrogen  
gas target, and the scattered lepton and recoiling proton were detected in coinci-  
dence in a large-acceptance magnetic spectrometer. Forward tracking telescopes,  
and Møller/Bhabha calorimeters independently monitored the relative luminosity of  
the electron and positron running modes. Over  $4 \text{ fb}^{-1}$  of integrated luminosity were  
collected, giving OLYMPUS excellent statistical precision. The analysis procedure  
as well as the current status will be presented.

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