

Abstract Submitted  
for the APR12 Meeting of  
The American Physical Society

**Radiative Corrections in the OLYMPUS Experiment** AXEL SCHMIDT, MIT, OLYMPUS COLLABORATION — The OLYMPUS Experiment, underway at DESY, in Hamburg, Germany, is measuring the ratio between the electron-proton and positron-proton elastic scattering cross-sections in order to determine the contribution from two-photon exchange. A deviation in the ratio from unity is caused both by the hard two-photon scattering of interest but also by soft radiative effects which must be accounted for. A simulation has been developed to generate particles according to different radiative models and to propagate these particles via a GEANT4 Monte Carlo through the OLYMPUS detector. This will convolve both the cross-sections with effects such as detector resolution and efficiency. A description of the radiative correction procedure, as well as the latest results from the analysis will be presented.

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Date submitted: 06 Jan 2012

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