

Abstract Submitted
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Status of the OLYMPUS experiment¹ MICHAEL KOHL, Hampton University and the OLYMPUS Collaboration — The OLYMPUS experiment at DESY has been carried out to quantify the effect of two-photon exchange in elastic lepton-proton scattering, which has been the favored explanation for the discrepancy in the form factor ratio between the Rosenbluth separation and polarization transfer methods. While the effect can not be calculated from first principles, it can be determined experimentally by comparing the positron-proton and electron-proton elastic cross sections. The OLYMPUS experiment has used intense stored positron and electron beams along with an internal unpolarized hydrogen target and a large acceptance detector to measure the ratio of elastic scattering cross sections. Particular emphasis has been put on optimal control of systematics, by redundantly monitoring luminosity, beam properties and detector efficiencies. Data taking has been completed in January 2013. An overview of the experiment will be given along with the status of the analysis.

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