

Update on the OLYMPUS Two-Photon Exchange Experiment

The OLYMPUS Collaboration

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Abstract

OLYMPUS, an experiment designed to quantify the contribution of two-photon exchange to the proton form factor discrepancy, completed data taking in early 2013. About 4 fb^{-1} of data were collected, running with a 2.01 GeV lepton beam of alternating charge impinging on an internal hydrogen gas target. A full Monte Carlo simulation now allows for integration of expected rates given variable cuts while accounting for time-dependent backgrounds and detector effects. Meanwhile, the analysis effort has progressed significantly over the full kinematic range accepted, $(0.6 < Q^2 < 2.2) \text{ GeV}^2$. This talk will review the current status and prospects.