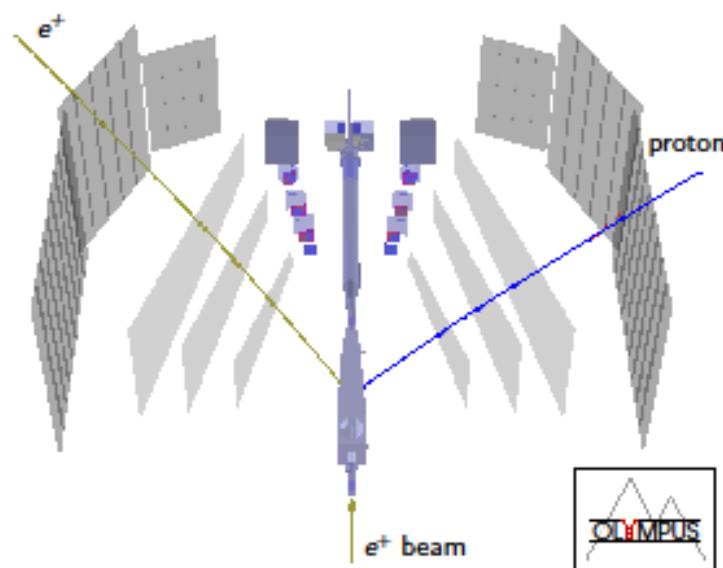




Results from the OLYMPUS Experiment at DESY.

Axel Schmidt (MIT)

Tuesday, 31 January 2017, 16:45 h, DESY Auditorium



OLYMPUS, the final experiment at DESY's DORIS storage ring, measured the ratio between positron-proton and electron-proton elastic scattering cross sections to look for signs of hard two-photon exchange (TPE). TPE is hypothesized to be the cause of the discrepancy in the proton's electromagnetic form factors. OLYMPUS collected data in 2012, alternately scattering electron and positron beams from a fixed proton target. The first results, recently accepted in PRL, suggest that the TPE contribution is smaller than many theoretical calculations predict. In this seminar, the OLYMPUS results will be compared to those of two recent experiments, and the implications for the proton form factor discrepancy will be presented.

- **Coffee, tea and cookies will be served at 16:30h**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**