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.