Current Results of the PRad Experiment at JLab

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The latest measurements of the proton radius through muonic hydrogen Lamb shift show a discrepancy of about 7σ from a global analysis of standard hydrogen Lamb shift and elastic *ep*-scattering. In order to understand this *proton radius puzzle*, the PRad experiment[1], that was designed through an independent method, successfully performed in June 2016, taking elastic *ep* and Møller-scattering data with rich statistics on a wide Q^2 range including very low momentum transfer ($Q^2 \in [10^{-4}, 10^{-1}]$ GeV^2) with very accurate angle and energy measurements to minimize the systematic uncertainties to achieve a sub-percent precision.

After briefly reminding the framework around this *proton radius puzzle* and how the specific setup of the PRad experiment was designed to improve the previous measurements on elastic *ep*-scattering cross-sections, using a high efficiency and high resolution calorimeter (HyCal) and a high resolution GEM detector, the presentation will focus on the data analysis and the extraction of *ep* scattering cross-section normalized by the well known Møller cross-section, to finally show the latest physics results from the 2.2 GeV data.

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