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Proton Elastic Form Factor Ratio Measurements at Low Q^2 VIN-CENT SULKOSKY, MIT, JEFFERSON LAB HALL A COLLABORATION — A high-precision experiment was recently performed at Jefferson Lab in Hall A to measure the proton elastic form factor ratio $\mu_p G_E^p/G_M^p$ for Q^2 between 0.3 and 0.7 [GeV/c]². In this Q^2 region, previous data and various fits have indicated significant deviations from unity in the form factor ratio. The technique of recoil polarimetry was used with an 80% polarized electron beam to achieve the proposed statistical uncertainty of < 1%. In addition to studying nucleon structure, these results will impact few-body nuclear structure, deeply virtual compton scattering measurements, the determination of the proton Zemach radius and the extraction of the strange form factors from elastic parity violation experiments. The preliminary results will be presented, which are a few precent lower than previous world data and fits.

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