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Proton electromagnetic form factor ratio at high momentum transfer via recoil polarization in Hall C at Jefferson Lab[1] ANDREW PUCKETT, MIT, JEFFERSON LAB HALL C GEP-III COLLABORATION — Experiment E04-108 in Hall C at Jefferson Lab measured the ratio of the proton's electric (G_E) and magnetic (G_M) form factors using the recoil polarization technique at three different values of squared four-momentum transfer Q^2–5.2, 6.8, and 8.5 GeV^2. Data taking was completed in June 2008, and analysis of the data is underway. Two new detectors were built by the collaboration to carry out this experiment. A large solid-angle electromagnetic calorimeter was used to detect elastically scattered electrons in coincidence with scattered protons detected by the Hall C High Momentum Spectrometer (HMS). The calorimeter allowed a clean rejection of the significant inelastic backgrounds present at such high Q^2. A new Focal Plane Polarimeter (FPP) was installed in the HMS detector hut to measure the polarization of the scattered proton. After a brief overview of the experiment, the present status of the analysis will be discussed.

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