

Abstract Submitted
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A new focal plane polarimeter to measure the proton form factor ratio.¹ MEHDI MEZIANE, The College of William and Mary, JEFFERSON LABORATORY GEP-III COLLABORATION — One of the two methods available to measure the elastic form factors of the proton, is a measurement of the polarization of the recoil proton in $\vec{e}p \rightarrow e\vec{p}$; the other is the standard Rosenbluth separation based on cross section. A new experiment in Hall C at JLab is measuring the ratio G_{Ep}/G_{Mp} by the recoil polarization method. The polarization of the recoil proton is measured by a new polarimeter (FPP) built and installed near the focal plane of the high momentum spectrometer in Hall C. In this FPP, the protons are scattered in an analyzer and the azimuthal angular distribution of the proton is measured. To maximize the number of interactions in the FPP, two analysers in series are used, each followed by a pair of drift chambers. Performances, resolution and efficiency will be discussed. A preliminary result of the new ratio G_{Ep}/G_{Mp} at $Q^2 = 5.2 \text{ GeV}^2$ will be shown.

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