Abstract Submitted for the APR05 Meeting of The American Physical Society

A Precision Measurement of  $G_E^p/G_M^p$  at BLAST CHRIS CRAW-FORD, Massachusetts Institute of Technology, BLAST COLLABORATION — We have measured  $G_E^p/G_M^p$  at  $Q^2 = 0.1-0.9 \text{ GeV}/c^2$  in the South Hall Ring of the MIT-Bates Linear Accelerator Facility. This experiment used a polarized electron beam, a pure hydrogen internal polarized target, and the symmetric Bates Large Acceptance Spectrometer Toroid (BLAST) detector. By measuring the spin-dependent elastic  $\vec{H}(\vec{e}, e'p)$  asymmetry in both sectors simultaneously, we could extract the form factor ratio independent of beam and target polarization. This was the first experiment to measure  $G_E^p/G_M^p$  using a polarized target, which is complementary to recoil polarimetry experiments. Preliminary results are presented.

> Chris Crawford Massachusetts Institute of Technology

Date submitted: 18 Jan 2005

Electronic form version 1.4