Abstract Submitted
for the APR10 Meeting of
The American Physical Society

High Acceptance Proton Form Factor Measurements Up To 15 GeV^2 BOGDAN WOJTSEKHOWSKI, LUBOMIR PENTCHEV, Thomas Jefferson National Accelerator Facility — An experiment aimed to measure the proton form factor ratio with the 12 GeV JLab machine using polarization transfer technique, is described. A large detector acceptance needed for such high Q^2 measurements is achieved by means of a single dipole detector system to detect the recoil proton that includes a polarimeter and a hadron calorimeter, and a highly granulated electromagnetic calorimeter for the electron registration. For the proton tracking, Gas Electron Multiplier technology is used that can sustain the high fluxes of particles due to direct view from the target. The impact of such high precision measurements on the theoretical description of the proton are discussed, as well.

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Date submitted: 21 Jan 2010 Electronic form version 1.4