Abstract Submitted
for the APR07 Meeting of
The American Physical Society

The Double Spin Asymmetry for Exclusive π^+ Production JOSHUA PIERCE, University of Virginia, CLAS COLLABORATION — The eg1b run was conducted using CLAS (CEBAF Large Acceptance Spectrometer) at the Thomas Jefferson National Accelerator Facility (TJNAF) in 2000 by the CLAS collaboration. A 1.6 GeV - 5.6 GeV polarized electron beam and polarized nuclear targets (composed of NH_3 and ND_3) were used, allowing spin asymmetries to be measured. This analysis is of the double spin asymmetry $A_{||}$ in the exclusive production of positive pions from a polarized proton ($ep \rightarrow e\pi^+ n$). The double spin asymmetry was measured as a function of the four kinematic variables W, Q^2, $\cos\theta^*$ (the angle between the direction of the virtual photon and the produced pion), and ϕ^* (the angle between the lepton interaction plane and the hadron interaction plane). This asymmetry helps determine the spin structure of the resonances. A brief description of the experimental setup will be given, and preliminary results of the asymmetry as a function of W will be shown.

Joshua Pierce
University of Virginia

Date submitted: 15 Jan 2007 Electronic form version 1.4