Abstract Submitted
for the APR13 Meeting of
The American Physical Society

Single and Double Spin Asymmetries for Semi-Inclusive Deep Inelastic Scattering on Proton and Deuteron SUMAN KOIRALA, SEBASTIAN KUHN, Old Dominion University, CLAS COLLABORATION — Transverse momentum dependent (TMD) parton distribution functions encode information on the transverse motion of quarks and gluons inside the nucleon, and may help us understand their orbital angular momentum. The TMDs can be accessed from the target and double spin asymmetries of semi-inclusive deep inelastic scattering (SIDIS) reactions, where the asymmetries, A_{UL} and A_{LL} are convolutions of the fragmentation functions and the TMDs. The EG1-DVCS experiment with CLAS at Jefferson Lab measured semi-inclusive pion production on longitudinally polarized proton and deuteron targets with polarized electrons of 6 GeV. We will show preliminary results on target single spin asymmetries and target-beam double spin asymmetries for these reactions.

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Date submitted: 11 Jan 2013 Electronic form version 1.4