

Abstract Submitted  
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**Double and target asymmetries for the  $ep \rightarrow e'p\pi^0$  production** AN-GELA BISELLI, Fairfield University, CLAS COLLABORATION — An extensive experimental program to measure the spin structure of the nucleons is carried out in Hall B with the CLAS detector at Jefferson Lab using a polarized electron beam incident on a polarized target. Spin degrees of freedom offer the possibility to test, in an independent way, existing models of resonance electroproduction. The present analysis selects the exclusive channel  $\vec{p}(\vec{e}, e', p)\pi^0$  from data taken in 2000-2001, to extract single and double asymmetries in a  $Q^2$  range from 0.2 to 0.75 GeV<sup>2</sup> and a  $W$  range from 1.1 to 1.6 GeV. Results of the asymmetries will be presented as a function of the center of mass decay angles of the  $\pi^0$  and compared with the unitary isobar model MAID [1], the dynamic model by Sato and Lee [2] and the dynamic model DMT [3].

[1] D. Drechsel et al., Nucl. Phys. **A645** (1999) 145-174

[2] H. Lee, Nucl. Phys. **A513** (1990) 511

[3] S. S. Kamalov, Phys. Lett. **B 522** (2001) 522

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