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Electroproduction of  $\pi^0$  in the resonance region at high  $Q^2$  with CLAS MAURIZIO UNGARO, Jefferson Lab, KYUNGSEON JOO, University of Connecticut, CLAS COLLABORATION — An extensive program is underway at Jefferson Lab to study the electromagnetic excitations of baryon states. We report the analysis of exclusive single  $\pi^0$  electroproduction in the resonance region at Jefferson Lab in the  $Q^2$  range of 2 to 6  $GeV^2/c^2$ . A longitudinally polarized 5.75 GeVelectron beam was incident on a 5 cm long liquid Hydrogen target. The CLAS spectrometer at Jefferson Lab was used to detect the final state particles. The data was taken between October 2001 and January 2002. Preliminary results for differential cross sections over the entire  $4\pi \ c.m$ . solid angle will be presented. This high precision measurement will allow us to access the structure and dynamics of nucleon excitations with masses up to 2 GeV.

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