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Exclusive π^0 electroproduction in the resonance region NIKOLAY MARKOV, KYUNGSEON JOO, University of Connecticut, MAURIZIO UNGARO, Jefferson Lab, COLE SMITH, University of Virginia — We report the analysis of single π^0 electroproduction in the resonance region to study the electromagnetic excitation of the nucleon resonances. The study is aimed at understanding the internal structure and dynamics of the nucleon. The experiment was performed using an unpolarized cryogenic hydrogen target and polarized electron beam with the CLAS detector at Jefferson Lab. The new measurements produce a data base with high statistics and large kinematic coverage for the hadronic invariant mass W up to 1.8 GeV and in the momentum transfer Q^2 range of 0.4 - 1.0 (GeV/c)² with full angular coverage in the Center of Mass system. This data set is currently being analyzed using a Unitary Isobar Model to determine the Q^2 dependence of resonance transition amplitudes for several excited states of the nucleon. Preliminary results will be presented.

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