Exclusive ρ^0 electroproduction on the nucleon above the resonance region at CLAS

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Abstract

We report on the status of the analysis of exclusive ρ^0 electroproduction on the nucleon at large Q^2 and above the resonance region at JLab with the CLAS detector. The aim is to interpret the reaction in the Generalized Parton Distribution theoretical framework. One of the key observables is the Q^2 dependence of the forward differential cross section which should show a $1/Q^6$ scaling behavior in leading order pQCD. Results will be presented from our 4.2 GeV beam energy run, taken with an hydrogen target in the February-March 1999 period. Q^2_{max} for that run was 3.5 GeV^2. We will show preliminary cross sections. Additional data with a 5.75 GeV beam - wich will bring Q^2_{max} to 4.5 GeV^2 - have been collected in the period October 2001- January 2002 and are currently being analyzed.