

Studies of $\pi^+\pi^-p$ electroproduction at W from 1.4 to 1.8 GeV and Q^2 from 0.4 to 1.1 GeV² with CLAS

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ABSTRACT

The first results on studies of the $ep \rightarrow e'p'\pi^+\pi^-$ reaction at W from 1.4 to 1.8 GeV and Q^2 from 0.4 to 1.1 GeV² with the CLAS detector will be presented. Nine one-fold differential cross sections will become available in this kinematical area and within of photon virtuality (Q^2) bins of smallest sizes ever achieved in studies of this exclusive channel (50 MeV²). Analysis of this data within a reaction model [1, 2] will improve considerably the available Q^2 evolution of the $\gamma_v NN^*$ electrocouplings of excited proton states in the mass range up to 1.8 GeV. Furthermore, this information is of particular importance for the studies of $3/2^+(1720)$ candidate state [3].

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