

Abstract Submitted  
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**Phenomenological studies of CLAS data on double charge pion electroproduction**<sup>1</sup> VICTOR MOKEEV, VOLKER BURKERT, Jefferson Lab, CLAS COLLABORATION — Comprehensive studies of unpolarized  $\pi^-\pi^+p$  electroproduction cross-sections, for the first time available from CLAS [1,2], were carried out within the framework of phenomenological approach [3]. Analysis of these data allowed us to establish all important mechanisms, contributing to this exclusive channel in  $N^*$  excitation region at photon virtualities from 0.2 to 1.5 GeV<sup>2</sup>. Electrocouplings for  $P_{11}(1440)$ ,  $D_{13}(1520)$  states at  $Q^2 < 0.6\text{GeV}^2$  were obtained from the analysis of CLAS data [1]. The contributions from various mechanisms in terms of both amplitudes and single differential cross-sections were determined from the data fit. This information is of particular interest for  $N^*$  studies in coupled channel approaches under development at EBAC [4].

[1] G.V.Fedotov, et. al., Bull. of Russian Academy of Science,71,328 (2007).

[2] M.Ripani, et. al., Phys. Rev.,91,0222002 (2003).

[3] V.I.Mokeev, et. al., Int. Workshop on the Physics of Excited Baryons (NSTAR05) Tallahassee, Florida, 10-15 Oct 2005, ed by V.Crede, P.Eugenio and S.Capstick, p.47.

[4] A.Matsuyama, et.al., Phys.Rep.,439,193 (2007); B.Julia-Diaz, et.al., arXiv:0704.1615.

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Victor Mokeev  
Jefferson Lab

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