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Electroproduction of soft pions at high Q^2 near the threshold from CLAS KIJUN PARK, RALF GOTHE, University of South Carolina, PAUL STOLER, RPI, CLAS COLLABORATION — Threshold pion electoproduction has long been a topic of interest for both experimental and theoretical studies. In chiral symmetry, the approximately zero pion mass allows one to make exact predictions for threshold cross sections using low energy theorems (LET). The LET established the connection between charged pion electroproduction and the axial form factor in the nucleon. Thanks to studies based on the light-cone sum rules (LCSR), one can calculate the hadron form factors in terms of distribution amplitudes that approach perturbative quantum chromodynamics (pQCD) without other non-perturbative parameters. The extraction of the axial form factor near the pion threshold is dominated by the S- wave multipole E_{0+} in the LCSR framework [VBraun08]. Preliminary extracted axial form factor close to the threshold region will be presented. This analysis is based on the exclusive electroproduction process $ep \to e'n\pi^+$, [KPark08] which was measured in the interval of Q^2 from 2.0 to 4.5 GeV², and an invariant mass range in the $n\pi^+$ system from W=1.11 to 1.15 GeV. The CEBAF Large Acceptance Spectrometer (CLAS) was used to carry out these measurement.

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