

Abstract Submitted
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Beam spin asymmetry observables from electroproduction of $p\pi^+\pi^-$ off protons ARJUN TRIVEDI, RALF GOTHE, GLEB FEDOTOV, EVAN PHELPS, YE TIAN, University of South Carolina, CLAS COLLABORATION — One of the goals of the N^* program at JLab is to understand the evolution of the dominant degrees of freedom of QCD at varying length scales (Q^2). A method of probing this evolution is by studying how the electrocouplings - couplings of a virtual photon to the nucleon excited nucleon vertex ($\gamma_v NN^*$) - change with Q^2 . In my presentation, I will provide an update on the first attempt to obtain beam spin asymmetry observables from the reaction $\gamma_v p \rightarrow p\pi^+\pi^-$ in the Q^2 range of $2 \text{ GeV}^2 < Q^2 < 5 \text{ GeV}^2$ and W in the range of $1.3 \text{ GeV} < W < 3 \text{ GeV}$. These observables will be used to extract the electrocouplings for the Q^2 and W range of this analysis. The update will be preceded by a short introduction to the electrocouplings motivated observables and followed by a summary outlining the steps remaining before my analysis is complete.

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