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Dihadron beam-spin asymmetries at CLAS12

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Azimuthal correlations in the production of hadron pairs in semi-inclusive deep-inelastic scattering provide rich information on nucleon structure. The additional degree of freedom present in the two hadron final state allows for studies of correlations in the hadronization process, which can access novel fragmentation functions not accessible in single hadron production. Consequently, several PDFs such as the higher-twist collinear PDF $e(x)$ or the as yet unmeasured dihadron fragmentation function G_1^\perp can be extracted. We present preliminary charged pion beam-spin asymmetries from a subset of the data taken in 2018 with the CLAS12 detector at Jefferson Lab. The data were taken with a 10.6 GeV polarized electron beam and an unpolarized liquid-hydrogen target. The large kinematic acceptance and sample size allows for a multidimensional analysis in Bjorken x , z and the invariant mass of the hadron pair.

Author: HAYWARD, Timothy (The College of William and Mary)

Presenter: HAYWARD, Timothy (The College of William and Mary)

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