

Contribution submission to the conference Bonn 2020

SIDIS Kaon Beam Spin Asymmetry Measurements with CLAS 12 — •ÁRON KRIPKÓ¹ and STEFAN DIEHL^{1,2} for the CLAS-Collaboration — ¹Justus Liebig Universität Gießen, 35390 Gießen, Germany — ²University of Connecticut, Storrs, CT 06269, USA

The CLAS12 detector started data taking with a polarized 10.6 GeV electron beam in 2018 at Jefferson Laboratory (JLab). One of the quantities which could be extracted from the data is the moment $A_{LU}^{\sin(\phi)}$ corresponding to the polarized electron beam spin asymmetry in semi-inclusive deep inelastic scattering.

$A_{LU}^{\sin(\phi)}$ is a twist-3 quantity which provides information about the quark gluon correlations. The study was performed with a 10.6 GeV longitudinally polarized electron beam and an unpolarized liquid hydrogen target.

The talk will present a simultaneous study of two kaon channels (K^+ and K^-) over a large kinematic range with virtualities Q^2 ranging from 1 GeV² up to 8 GeV². The measurement in a large range of z , x_B , p_T and Q^2 , including up to now not measured kinematic regions, will enable a comparison with different reaction models.

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Part: HK
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