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The TMD Program at JLab[1]

ZHIWEN ZHAO, Duke University

The TMD Program at JLab As a part of the general nucleon imaging effort, there have been many efforts to access the transverse momentum dependent parton distributions (TMDs) by using the semi-inclusive deep inelastic scatterings (SIDIS) processes. the recently upgraded Continuous Electron Beam Accelerator Facility (CEBAF) at Jefferson Lab (JLab) provides golden opportunities to study them in valence quark region. The TMDs describe the three-dimensional, spin-correlated densities of quarks and gluons in the nucleon in momentum space. The corresponding SIDIS measurement requires high intensity and polarization with large kinematic coverage which will be provided by several different detectors. In this talk, I will review the existing SIDIS results from the 6 GeV era and present an overview of the planned JLab SIDIS program at 11 GeV beam energy.

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