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Results from Single Spin Asymmetries Measurement in Semi-Inclusive DIS Reaction on a Transversely Polarized 3He Target KALYAN ALLADA, Thomas Jefferson National Accelerator Facility, E06-010 COLLABORATION, JEFFERSON LAB HALL-A COLLABORATION — Jefferson Lab experiment E06-010 measured the target single spin asymmetries in semi-inclusive deep inelastic $^3He^{\uparrow}(e, e'\pi^{\pm}/K^{\pm})X$ reactions on a transversely polarized ^3He target. The measured asymmetry (A_{UT}) is sensitive to nucleon transversity and Sivers distribution functions. The kinematics were chosen to be in the valence quark region with $x \sim 0.16 - 0.35$ and $Q^2 \sim 1.4 - 2.7GeV^2$. The Collins moment, which is sensitive to the transversity, and the Sivers moment, which is sensitive to the orbital motion of the quarks, were extracted using the azimuthal angular dependence of the measured asymmetries. This data, when combined with the data from other experiments on the transversely polarized proton and deuteron targets, will help in extracting the nucleon transversity and Sivers distribution functions through a global analysis. We will present the results of pion asymmetries from this experiments and future plans for high precision experiments in Hall-A.

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