New results from the Transversity Experiment (E06-010) at JLab
YUXIANG ZHAO, Univ of Sci & Tech of China, TRANSVERSITY (E06-010) COLLABORATION — The Transversity Experiment (E06-010) was performed in Hall A at Jefferson Lab using a longitudinally polarized 5.9 GeV electron beam and transversely polarized $^3$He target. Two spectrometers were employed to detect the outgoing particles: the BigBite spectrometer was set at $30^\circ$ on the beam right to detect scattered electrons with momentum from 0.6 to 2.5 GeV; the left HRS spectrometer was set at $16^\circ$ on beam left to detect the produced hadrons ($\pi^\pm$, $K^\pm$ and proton) with a central momentum of 2.35 GeV. Initial results, including target single spin asymmetries (SSA) and beam-target double spin asymmetries (DSA) in semi-inclusive deep inelastic scattering (SIDIS) process, $N^\uparrow(e, e'\pi^\pm)X$, have been reported. In this talk, I will report our latest results, including SSA measurement in the $^3$He$^\uparrow(e, e'K^\pm)X$ process, SSA and DSA measurements in the inclusive hadron productions and inclusive DIS process.