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Measurements and Simulations of (e,e'n)/(e,e'p) in the Proton-Rich Nucleus 3He

Recent data mining analyses from the CLAS experiment at Jefferson Lab have enabled detection of neutrons from the hard break up of Short-Range Correlated (SRC) pairs, leading to the observation that protons are disproportionately represented in high momentum states in neutron-rich nuclei. Here we seek to determine whether neutrons speed up in proton-rich nuclei by studying the proton-rich nucleus 3He using data from the CLAS e2a experiment. This talk will present preliminary measurements of 3He(e,e'n)/3He(e,e'p) in the mean field and short-range correlated pair regimes, indicating an enhancement of neutrons in high momentum states. We also present theoretical predictions of 3He(e,e'n)/3He(e,e'p) in the Plane-Wave Impulse Approximation using 3-body spectral functions.

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