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Abstract for an Invited Paper
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SRC and Few Body Precision Measurements on ${}^3\text{H}$ and ${}^3\text{He}$ mirror nuclei¹

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This talk will discuss the exciting experimental program studying short range correlations and few body dynamics at Jefferson Lab in $A = 3$ nuclei. Quasi-elastic electron scattering on these light nuclei have readily calculable ground states but can already exhibit complex nuclear behavior including nucleon-nucleon (NN) short range correlations (SRCs). ${}^3\text{H}$ and ${}^3\text{He}$, being mirror nuclei, exploit the maximum available isospin asymmetry and can be compared directly with ab initio calculations. This talk will summarize the recent Hall A ${}^3\text{H}$ and ${}^3\text{He}$ results. The first measurement of SRC nucleons in ${}^3\text{He}$ using the CLAS detector from Hall B and identifying lead neutrons in np pairs at high missing momentum will be shown. These fascinating results will be extended in an approved experiment using the CLAS12 detector to measure high-statistics and absolute cross sections on ${}^2\text{H}$, ${}^3\text{He}$, and ${}^3\text{H}$ with a wide range of kinematical coverage. This talk will discuss the recent and proposed measurements and their implications on nuclear models for few body nuclear dynamics and short range structure.

¹For the CLAS Collaboration