Abstract Submitted for the DNP19 Meeting of The American Physical Society

Inclusive Short-range Correlation Measurement with 3H and 3He at JLab SHUJIE LI, University of New Hampshire, DOUGLAS HIGINBOTHAM, Thomas Jefferson National Accelerator Facility, JEFFERSON LAB HALL A COL-LABORATION — The nucleon-nucleon potential has a strong repulsive core. When a two-nucleon (sub)system falls into this range, they will interact strongly and move away from each other with large momentum. In electron Quasi-elastic (QE) scattering, these so-called short-range correlation (SRC) pairs in nuclei produce events with nucleon initial momentum above the Fermi level. Previous experiments reported a neutron-proton pair (isosinglet) dominance in high-momentum nucleons. This n-p dominance is believed to cause a scaling behavior of nuclei inclusive cross section ratios at Bjorken x between 1.4 and 3 where the high-momentum nucleons dominate. At Jefferson Lab Hall A we checked this n-p dominance of SRC via the electron scattering on A=3 nuclei system. The 3H to 3He inclusive cross section at 1 < x < 3 were measured in two experiments (E12-11-112 and E12-14-011) with a wide Q2 range  $(0.4 < Q^2 < 3GeV^2)$ . In this talk the preliminary results of 3H/3Heratio at 1 < x < 2 will be released at various  $Q^2$ .

> Shujie Li University of New Hampshire

Date submitted: 02 Jul 2019

Electronic form version 1.4