

Abstract Submitted
for the APR13 Meeting of
The American Physical Society

Three-Nucleon Short Range Correlations studies in Inclusive Scattering for $x_{bj} > 2$ ZHIHONG YE, University of Virginia, JOHN ARRINGTON, Argonne National Lab, E08014 & HALL-A COLLABORATION — Short range correlations (SRC) can be studied in inclusive quasi-elastic electron scattering as the ratio of the cross sections of heavy to light nuclei provides a measure two-nucleon SRC (2N-SRC) and three-nucleon SRC (3N-SRC) in the region of $1 < x_{bj}$ and $2 < x_{bj} < 3$ regions, respectively. Recent experiments at Jefferson Lab confirmed the early measurements while including a wider range of nuclei and an extension into the 3N-SRC region. Measurements in the 3N region, however, suffer from poor experimental precision. Meanwhile, an exclusive measurement, also at Jefferson Lab, showed a strong isospin dependence of 2N-SRCs. Experiment E08014 was designed to study the onset of 3N-SRC for $x_{bj} > 2$ with better accuracy, and to examine the isospin dependence of SRCs in inclusive scattering using the calcium isotopes. E08014 ran in Hall A in 2011 and we will briefly present the experimental setup along with status of the data analysis followed by a discussion of the preliminary results.

Zhihong Ye
University of Virginia

Date submitted: 11 Jan 2013

Electronic form version 1.4