

Abstract Submitted
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Large Study of Short-Range Correlations in $^{12}\text{C}(e,e'pn)$ RAMESH SUBEDI, Kent State University, JEFFERSON LAB E01-015 COLLABORATION, JEFFERSON LAB HALL A COLLABORATION — Experiment E01-015 at JLab Hall A has been investigating electron induced two nucleon emission from carbon with the goal of being sensitive to and studying short-range correlations. The experiment took data from January through April 2005 at a kinematic coverage of $Q^2 = 2 (\text{GeV}/c)^2$, $x_B = 1.2$ and the missing momentum from $^{12}\text{C}(e,e'p)$ reaction ranging 250 to 650 MeV/c. Two high resolution spectrometers were used for e' and p detection in the reaction $^{12}\text{C}(e,e'pn)$. The recoiling neutrons were detected by a neutron detector which covered an 81 msr solid angle and consisted of 4 layers of neutron counters, each layer being 10 cm thick. We used a time-of-flight method to reconstruct the neutron momentum. Short-range correlations can be emulated by various two-body effects, so we chose an anti-parallel kinematics with high Q^2 at $x_B > 1$ to minimize meson exchange currents, isobar currents and final-state interactions. Preliminary analysis results from $^{12}\text{C}(e,e'pn)$ reaction will be presented.

Ramesh Subedi
Kent State University

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