

# On the Extraction of the Probability of Two- and Three-nucleon Short Range Correlations in Nuclei and Symmetric and Asymmetric Nuclear Matter

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Recent experimental data on inclusive and exclusive lepton and hadron scattering off nuclei have renewed the interest in theoretical and experimental studies of Short Range Correlations (SRC), due to the relevant impact they may have not only on the structure of ordinary nuclei but on the structure of hadronic matter at high densities as well. One of the ultimate aim of these studies is the determination of the probability of two- and three-nucleon correlations in nuclei and nuclear matter. To this end, we have studied the possibility to extract these probabilities from a novel analysis of:

- i) inclusive  $A(e, e')X$  processes in terms of relativistic scaling variables which incorporate effects from two- and three-nucleon SRC, with a resulting scaling function strictly related to longitudinal momentum distributions; such an approach led to a satisfactory explanation of the cross section ratios recently found at JLab and interpreted as strong evidence of SRC in nuclei;
- ii) nucleon momentum distributions for the deuteron and complex nuclei obtained from various realistic nucleon-nucleon interactions (RSC, AV14, AV18, and others);
- iii) the calculation of exclusive processes off nuclei taking properly into account final state interaction effects within an improved Glauber approach.

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