

## **Testing the EMC-SRC Hypothesis with the LAD Experiment**

The EMC effect, the observation that Deep Inelastic Scattering (DIS) on bound nucleons differs significantly from that on free nucleons, has puzzled nuclear physicists for more than forty years. A potential cause of this phenomenon is the formation of short-range correlations (SRCs) between nucleons within a nucleus, which may significantly alter partonic structure. This hypothesis can be tested directly using the technique of spectator-tagging, in which the coincident detection of a recoiling nucleon is used to identify when DIS occurs on a short-range correlated nucleon and the degree of its correlation. The upcoming LAD experiment in Jefferson Lab Hall C, running this winter, will measure backward-recoiling spectator protons in coincidence with DIS electrons from a deuterium target. The eponymous Large Acceptance Detector consists of three walls of plastic scintillator, which will determine proton momenta through a combination of timing and energy loss measurements. High-resolution GEM detectors will help provide crucial background suppression. I will present the current status of the preparations for LAD and showcase how its results will further our understanding of the relationship between the EMC Effect and short-range correlations in nuclei.