

Abstract Submitted
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Inclusive Scattering from Nuclei at $x > 1$ and High Q^2 with a 6 GeV beam NADIA FOMIN, University of Virginia — Inclusive electron scattering from nuclei at large x and Q^2 is the result of a reaction mechanism that includes both quasi-elastic scattering from nucleons and deep inelastic scattering from the quark constituents of the nucleons. Consequently, it provides an opportunity to investigate the transition from a regime where nucleon degrees of freedom dominate to one where the more fundamental QCD interactions are exposed. Data in this regime can be used to study a wide variety of topics, including the extraction of nuclear momentum distributions, the influence of final state interactions and the approach to y -scaling, the strength of nucleon-nucleon correlations, and the approach to x -scaling, to name a few. We recently performed an experiment in Jefferson Lab's Hall C using a 6 GeV beam and a range of both light and heavy nuclei which was designed to significantly extend the kinematic region at high momentum transfer and large (negative) y , previously explored in SLAC experiment NE3 and Jefferson Lab experiment E89-008. After a brief statement of the physics goals of this experiment, we will present preliminary results.

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