APR16-2016-000836

Abstract for an Invited Paper for the APR16 Meeting of the American Physical Society

Few-Body Physics at the Electron-Ion Collider¹

MISAK SARGSIAN, Florida International University

The Electron-Ion Collider(EIC) presents unprecedented new opportunities for research in Few-Body Nuclear Physics. This research has two main aspects: First, the A=2,3 nuclei at relatively small internal momenta can be used as "micro-lab" for testing QCD properties of hadrons, such as polarized partonic distributions, quark-gluon hadronization and nuclear medium modifications. Secondly, the EIC configuration gives unique possibility to probe the elusive repulsive core of the NN interaction by probing its non-nucleonic and hidden color component. The talk will review in detail the above aspects of Few-Body studies at EIC as well as present the development of the baseline theoretical framework of semi-inclusive deep inelastic electron-light-nucleus scattering at collider kinematics.

¹The work is supported by US Department of Energy