

Abstract Submitted
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The Electron-Ion Collider at BNL: Capabilities and Physics Highlights J.H. LEE, Brookhaven National Laboratory — Nuclei probed in DIS and diffractive processes in the high-energy (low- x) regime open a new precision window into fundamental questions in QCD. The proposed Electron-Ion Collider at BNL (eRHIC) is a new high-energy and high-luminosity electron-ion/proton machine. The proposed design provides unprecedented access to study deeply the nature of QCD matter and strong color fields. It will allow us to explore gluon saturation, one of the outstanding fundamental problems in QCD, and test the validity of the Color Glass Condensate approach. We will outline the compelling physics case for e+A collisions at eRHIC, and discuss briefly the status of machine and detector design concepts.

J.H. Lee
Brookhaven National Laboratory

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