

3D Imaging of Nucleons and Nuclei with ECCE at the Future EIC

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The upcoming Electron Ion Collider (EIC) at Brookhaven National Lab will provide novel opportunities to study the structure of light nuclei. Exclusive reactions in particular, such as Deeply Virtual Compton Scattering (DVCS) and Deeply Virtual Meson Production (DVMP), have clean final states which allow us to effectively extract Generalised Parton Distribution (GPDs). This makes them important topographic tools in understanding the quark-gluon structure of the nucleon and nuclei. We will present the program of exclusive measurements with the proposed EIC Comprehensive Chromodynamics Experiment (ECCE) detector. We will discuss the simulated detector performance for several key processes and show how ECCE will address the different science goals of the future EIC.

Submitted on behalf of a Collaboration?

Yes

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