

Abstract Submitted
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Prospects of charm measurements at a new electron-ion collider¹

ZHANGBU XU, BNL — Heavy-flavor quark production in eA collisions is an important tool to study the gluon distribution function in proton and nuclei and the interaction of heavy quarks with nuclear matter. This talk will present a study of charm spectra and statistics in ep and eA collisions as can be obtained from an electron-ion collider (EIC) with high annual luminosity of $5/A \text{ fb}^{-1}$. An R&D project on a novel and compact muon detector, which is potentially a cost-effective solution for such environment, will be discussed.

¹for the BNL EIC Working Group

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