

Abstract Submitted
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Charm production in charged current deep inelastic scattering at EIC¹ JAE NAM, Temple University — The recently-announced U.S.-based Electron-Ion Collider (EIC) is projected to facilitate polarized eA collisions at center-of-mass energies of $\sqrt{s} = 141\text{GeV}$ at the largest ep energy mode and $\sqrt{s} = 104\text{GeV}$ at the highest luminosity mode. The polarized electron beam would provide a unique opportunity to study the inner-structure of the proton and atomic nucleus. Recent studies show that $s(x, Q^2)$ and $\Delta s(x, Q^2)$ can be probed via charm production in charged current DIS (CCDIS). We discuss the feasibility of such investigation in EIC in a Monte Carlo study by extrapolating charm production cross section and yield based on recent ZEUS measurements.

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