

DIS2023: XXX International Workshop on Deep-Inelastic Scattering and Related Subjects



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Type: **Parallel talk**

Inclusive Physics with the EPIC Detector at the Electron Ion Collider

Wednesday 29 March 2023 11:30 (20 minutes)

Prospects for inclusive physics studies at the Electron-Ion Collider (EIC) using the EPIC detector are explored. EPIC is currently under rapid development and is expected to be operational from the first day of data taking. Simulations are used to determine the detector acceptance and resolutions, and to estimate some significant sources of systematic uncertainty such as backgrounds and inefficiencies in electron identification. Expected luminosities and beam polarizations in ep and eA collisions allow projections of the EPIC detector performance into measurements of charged- and neutral-current cross sections and asymmetries. The impact of these measurements on derived quantities such as polarized and unpolarized parton distribution functions is evaluated.

Submitted on behalf of a Collaboration?

Yes

Participate in poster competition?

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