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**All Silicon Tracker Jet Reconstruction at the EIC** FERNANDO TORALES ACOSTA, University of California, Berkeley — Partons from the initial hard scatterings in high energy collisions cannot be directly observed, as they hadronize into a collimated spray of final state particles called jets. An extensive jet program has been proposed for the future Electron Ion Collider (EIC). Jets produced from deep inelastic scattering can be used as a powerful tool for studying energy loss and other cold-nuclear matter interactions, as well as studying transverse-momentum-dependent parton distribution functions. Such measurements, however, depend on the jet reconstruction capabilities of the EIC detector. We study the charged jet reconstruction performance of an all silicon tracker design for the EIC using a full GEANT4 simulation in a 1.4T magnetic field. Events are generated using PYTHIA8 e+p collisions with a minimum  $Q^2$  of 16 (GeV/ $c^2$ )<sup>2</sup>. Jets are reconstructed using the anti- $k_T$  jet finding algorithm with a resolution parameter of  $R = 1.0$  within the range of  $|\eta_{\text{jet}}| < 3.5$ . We present the charged jet momentum response, as well as charged jet momentum and angular resolutions.

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