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A Feasibility Study for Diffractive Dijet Measurements at the Electron-ion-collider LATIFUL KABIR, University of California, Riverside — Diffractive processes have been identified as the golden tool to study several key physics programs at the Electron-Ion-Collider (EIC), including a study of the spatial structure of nucleons and nuclei, access the orbital motion of small-x partons inside the proton, and to study saturation in nuclei. Diffractive dijet measurements at the EIC could add unique physics opportunities to other jet measurements at the EIC. In this study, using PYTHIA8 event generator and DELPHES fast-simulation, we explored the feasibility and detector requirements for diffractive dijet measurements at the EIC.

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