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Simulation Study of RICH Detector for Particle Identification in Forward Region at Electron-Ion Collider CHEUK-PING WONG¹, Georgia State University — eRD11 R&D program is focusing on the technology exploration for hadron particle identification in the forward region of Electron-Ion Collider (EIC) for studying quark and gluon distributions inside the nucleon. A modular Ring Imaging Cherenkov (RICH) detector has been extensively studied in Geant4-based simulation. The detector consists of a block of aerogel, Fresnel lens, four side mirrors and a photosensor plane. The simulated performance of this detector will be presented in this talk.

¹For the eRD11 Collaboration.

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