

Hadronization and Saturation with ECCE

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Future studies of nuclear physics will focus on the internal structure of the nucleon, which will require an Electron-Ion Collider (EIC) with high luminosity. Jets and heavy flavor quarks produced at the EIC will be key measurements to provide information on the hadronization process within nuclear matter, gluon saturation in nuclei, and the origin of mass. To achieve these physics goals, the ECCE consortium proposed an EIC detector based on the use of the existing Babar solenoid with a 1.4T magnet field. The performance of this physics-driven detector design was studied with an extensive set of simulations. This presentation will introduce the ECCE detector design and detail the simulation results for heavy flavor and jets which demonstrates the capabilities of the ECCE detector.

Submitted on behalf of a Collaboration?

Yes

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