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Far Forward Calorimetery for the EIC

Tuesday 5 September 2023 17:30 (2h 10m)

The Electron Ion Collider offers unprecedented opportunities to image the proton and nuclei. The Far Forward detectors serve to classify the nature of the electron-proton or electron-nucleus interaction by identifying forward proton, neutrons and photons. This talk will review progress in developing an imaging Zero Degree Calorimeter for the EIC. The detector is designed to meet the stringent performance requirements of the EIC for energy and angular resolution for both neutrons and photons over a very large energy range. The fine granularity of the detector opens up the possibility to use machine learning techniques for shower reconstruction. The current status of the design and simulated preformance will be shown.

Category

Experiment

Collaboration (if applicable)

ePIC ZDC group

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