

Calorimetry for the Electron Ion Collider

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The Electron Ion Collider will be a new facility at Brookhaven National Lab that will study the structure of nuclear matter in the gluon dominated regime of QCD using Deep Inelastic Scattering with precision electromagnetic probes. It will utilize the existing RHIC collider to provide beams of polarized electrons from 2.5-18 GeV to collide with heavy ions from 10-100 GeV/A and protons up to 275 GeV/c. The EIC will require major new detector systems to measure the scattered electron and full calorimeter, tracking and particle id systems to reconstruct the overall event. The eRD1 Consortium has been investigating a number of calorimeter options for an EIC detector that include high resolution calorimeters to measure the scattered electron and new types of high density sampling calorimeters for full azimuthal and rapidity coverage. The latest results of R&D on these various types of calorimeters will be presented along with an overview of the EIC physics program and its detector systems.

TIPP2020 abstract resubmission?

Yes, this would have been presented at TIPP2020.

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