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Design overview of the Electron Ion Collider

Monday 27 October 2025 09:00 (30 minutes)

The Electron-Ion Collider (EIC), which is being designed by BNL, JLab and other partners, will be a particle accelerator that collides electrons with protons and nuclei to produce snapshots of those particles' internal structure. It will collide polarized high-energy electron beams with hadron beams in the center-of-mass energy range of 20-140 GeV. The electron beam, employed as a probe, will reveal the arrangement of the quarks and gluons that make up the protons and neutrons of nuclei. The EIC will allow us to study the "strong nuclear force", the role of gluons in the matter within and all around us, and the nature of particle spin. This talk will describe the Electron-Ion Collider design and construction at Brookhaven National Lab.

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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