

eeFACT 2025 - 70th ICFA Advanced Beam Dynamics Workshop on High Luminosity Circular e+e-Colliders



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Electron-Ion Collider Project and Beam Dynamics Updates

Monday 3 March 2025 12:30 (30 minutes)

The Electron-Ion Collider (EIC) project is well underway at Brookhaven National Laboratory. The EIC aims at achieving peak electron-proton luminosities of up to $10^{34} \text{ cm}^{-2} \text{ sec}^{-1}$, covering a wide range of the center-of-mass collision energy, as well as a high level of polarization. The project configuration has recently been optimized to relocate the Rapid Cycling Synchrotron into a separate smaller ring outside of the RHIC tunnel, providing flexibility of the design, construction and operation. Updates on the design and project status, as well as updates on beam dynamics studies, including beam-beam effects, polarization, impedances, as well as RHIC beam studies for EIC, will be presented.

Footnotes

Funding Agency

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Yes

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