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Electron Beam Dynamics Simulation in Coherent Electron Cooling

Thursday, October 30, 2025 8:45 AM (30 minutes)

New scheme with lower electron beam energy together with lower peak beam current has been proposed for the Coherent electron Cooling (CeC) proof of principle experiment in RHIC Run 25. Such new operation mode appears to be a better candidate in providing a high quality electron beam for cooling performance. We will present our results to achieve the low slice emittance/low slice energy spread electron beam and discuss the progress in achieving better uniformity in both average slice energy and slice peak current to minimize potential anti-cooling effect.

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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