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Type: **Poster Presentation**

Simulation Study of Particle Loss in Synchrotron Phase Space Injection for ESR Using Weak-Strong Beam-Beam Simulation with Nonlinear Lattice

In this study, we use tracking simulations to investigate synchrotron phase-space injection for electron accumulation in the electron storage ring of the Electron-Ion Collider. Our simulation model incorporates both beam-beam interactions and lattice nonlinearities. Specifically, we examine how particle loss depends on various parameters. Our results demonstrate the feasibility of synchrotron phase-space injection for the electron storage ring and provide insights to guide parameter selection in the design of the injection line.

Please consider my poster for contributed oral presentation

No

Would you like to submit this poster in student poster session on Sunday (August 10th)

No

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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