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Calculating the Resistive Wall Heating for the Vacuum Components in the Electron-Ion Collider with GdfidL

Tuesday 12 August 2025 16:00 (2 hours)

GdfidL has been used to calculate the resistive wall heating in the vacuum components of the Electron-Ion Collider (EIC). In this paper, we present the simulation results for the beam-induced resistive wake potentials in various vacuum components of the EIC, including the beam screen and the hadron polarimeter in the hadron storage ring (HSR). The resistive wall losses are calculated from the wake potential computed in the finite-difference 3D electromagnetic code GdfidL and compared to the results obtained from the time-domain solver of another 3D electromagnetic code CST.

Please consider my poster for contributed oral presentation

Yes

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

No

Footnotes

Funding Agency

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Yes

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