IPAC'24 - 15th International Particle Accelerator Conference



Contribution ID: 605 Contribution code: WEPG37 Type: Poster Presentation

Beam Tomography using Markov Chain Monte Carlo

Wednesday, 22 May 2024 16:00 (2 hours)

Beam tomography is a method to reconstruct the higher dimensional beam from its lower dimensional projections. Previous methods to reconstruct the beam required large computer memory for high resolution; others needed differential simulations, and others did not consider beam elements' coupling. This work develops a 4D reconstruction using Markov Chain Monte Carlo.

Footnotes

Funding Agency

Paper preparation format

LaTeX

Region represented

North America

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Session Classification: Wednesday Poster Session

Track Classification: MC6: Beam Instrumentation, Controls, Feedback, and Operational Aspects:

MC6.T03 Beam Diagnostics and Instrumentation