Contribution ID: **223** Contribution code: **TUP060** Type: **Poster Presentation**

Lattice refinements for nonlinear integrable optics in IOTA

Tuesday 12 August 2025 16:00 (2 hours)

Nonlinear integrable optics of the type proposed by Danilov and Nagaitsev place strict constraints on the lattice parameters in the matching section outside of the nonlinear insert. In particular, the effects of energy spread in the beam have significant effects on the stability of the system. Typical chromatic compensation using sexupoles has significant perturbative effects on the dynamics and fails to address the variation in the lattice due to low order effects of the nonlinear insert. Refinements to the IOTA lattice parameters based on experience with electron beam operation are presented.

Please consider my poster for contributed oral presentation

Yes

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

Yes

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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