Contribution ID: **104** Contribution code: **TUP063** Type: **Poster Presentation**

Measurement and simulations of intrabeam scattering effects at NSLS-II

Tuesday 12 August 2025 16:00 (2 hours)

In this study, we present the latest measurements of intrabeam scattering (IBS) effects at NSLS-II and compare them with particle tracking simulations using ELEGANT. The growth of horizontal and vertical emittances, as well as bunch length and energy spread, is observed as a function of single-bunch current. Simulations, including IBS and longitudinal wakefields modeled using a broadband impedance model, are used to explain these experimental observations. The same approach is applied to the low-emittance NSLS-II upgrade, where IBS significantly impacts the machine performance.

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

I have read and accept the Privacy Policy Statement

Yes

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