Contribution ID: **118** Contribution code: **TUP072**   Type: **Poster Presentation**

Online regularization of Poincare map of storage rings with Shannon Entropy

Tuesday 12 August 2025 16:00 (2 hours)

A measurable chaos indicator is used as the online optimization objective in tuning a complicated nonlinear system - the National Synchrotron Light Source-II (NSLS-II) storage ring. Through analyzing the Shannon entropy in measured Poincaré maps, not only can the commonly used nonlinear characterizations be extracted, but more importantly, the chaos can be quantified, and then used for an online regularization of these maps. The method itself is general and applicable to other tunable nonlinear systems as well.

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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