



Contribution ID: 41

Type: **Student Talk**

Optimising non-linear Injection using Reinforcement Learning

Wednesday, February 7, 2024 9:00 AM (20 minutes)

Synchrotron light source storage rings aim to maintain a continuous beam current without observable beam motion during injection. One element that paves the way to this target is the non-linear kicker (NLK). The field distribution it generates poses challenges for optimising the topping-up operation.

Within this study, a reinforcement learning agent was developed and trained to optimise the NLK operation parameters. We present the models employed, the optimisation process, and the achieved results.

Possible contributed talk

Yes

Are you a student?

Yes

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Session Classification: Student Session