

5th ICFA Beam Dynamics Mini-Workshop on Machine Learning for Particle Accelerators



Contribution ID: 41

Type: **Poster**

First Attempts at Tuning the ISIS LEBT with Xopt and Bayesian Optimization

Until now, the majority, if not all, accelerator tuning at the ISIS Accelerators has been done manually. With the migration of the control system to EPICS as well as the development of accessible optimization frameworks such as Xopt, we have made the first attempts to automatically tune the Low Energy Beam Transport (LEBT) at ISIS. In this presentation we will discuss the specifics of the optimization problem being addressed including the variables, constraints and objectives. We will then share results of the first optimization runs using Xopt, discussing some of the setbacks and issues we faced during the process and the future work required to address each of these.

Co-authors: CHA, Jaehoon; BAKER, Kathryn; BANERJEE, Raunakk; LIU, Xingchi

Presenters: BAKER, Kathryn; BANERJEE, Raunakk

Session Classification: Poster session

Track Classification: Optimisation and Control