8th MT Student Retreat



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Optimizing Beamlines with Image-to-Image surrogates

Wednesday 28 September 2022 16:00 (15 minutes)

Optimizing Beamlines with Image-to-Image surrogates (DMA)

Beamlines are complex parts of a synchrotron –they consist of many components with many changeable parameters. Thus they are hard to set up as well as hard to optimize. We tackle this issue by using global optimization methods using simulations. However, since these methods require millions of simulation evaluations for proper optimization, the simulations are too slow, and we replace these with fast neural networks, which we call surrogate models.

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