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## Surrogate Modelling of the FLUTE Low-Energy Section

Numerical beam dynamics simulations are essential tools in the study and design of particle accelerators, but they can be prohibitively slow for online prediction during operation or for systematic evaluations of new parameter settings. Machine learning-based surrogate models of the accelerator provide much faster predictions of the beam properties and can serve as a virtual diagnostic or to augment data for reinforcement learning training. In this paper, we present the first results on training a surrogate model for the low-energy section at the Ferninfrarot Linac- und Test-Experiment (FLUTE).

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