

Sampling IIB Flux Vacua Using Generative Models

Tuesday 9 December 2025 11:00 (45 minutes)

We discuss the application of two types of generative models applied to the construction of ISD flux vacua of type IIB string theory. The models under study are Bayesian Flow Networks (BFNs) and Transformers. We find that both models demonstrate good performance, in particular on interpolation and conditional sampling. Some extrapolation capabilities are observed, which could be leveraged in future studies to generate flux vacua in less well explored settings.

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