Contribution ID: **104**   Type: **Flashtalk with Poster**

Generative models and lattice field theory

Tuesday, 30 April 2024 13:36 (3 minutes)

Generative models, particularly normalizing flows, have recently been proposed to speed up lattice field theory sample generation. We have explored the role symmetry considerations and ML concepts like transfer learning may have, by applying novel continuous normalizing flows to a scalar field theory. Beyond that, interesting connections exist between renormalization group theory and generative models, as pointed out in recent papers, which should be further explored.

Primary author: GERDES, Mathis (University of Amsterdam)

Co-authors: DE HAAN, Pim (UvA, Qualcomm);   RAINONE, Corrado (Qualcomm);   BONDESAN, Roberto (Qualcomm);   CHENG, Miranda (UvA, Academia Sinica)

Presenter: GERDES, Mathis (University of Amsterdam)

Session Classification: 1.2 Generative models & Simulation of physical systems

Track Classification: Session A