

## Flow-based generative models for ensemble generation

*Wednesday 29 September 2021 10:00 (50 minutes)*

Critical slowing down and topological freezing cause the Monte Carlo cost of lattice QCD simulations to severely diverge as the lattice regulator is removed. I will discuss the application of generative flow-based models to Monte Carlo sampling for lattice field theory as a means of circumventing these issues, in particular covering the construction and evaluation of flow-based samplers in proof-of-principle gauge theory applications. Finally, I discuss progress towards including the contributions of fermionic degrees of freedom in this method.

**Presenter:** KANWAR, Gurtej (University of Bern)

**Session Classification:** Session 5