Lattice 2023



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## MLMC: Machine Learning Monte Carlo for Lattice Gauge Theory

Monday, 31 July 2023 13:50 (20 minutes)

We present a trainable framework for efficiently generating gauge configurations, and discuss ongoing work in this direction. In particular, we consider the problem of sampling configurations from a 4D SU(3) lattice gauge theory, and consider a generalized leapfrog integrator in the molecular dynamics update that can be trained to improve sampling efficiency.

## **Topical** area

Algorithms and Artificial Intelligence

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