



Contribution ID: 220

Type: Poster

Topological susceptibility of SU(3) pure-gauge theory from out-of-equilibrium simulations

Tuesday, 30 July 2024 18:15 (1 hour)

In JHEP 04 (2024) 126 [arXiv:2402.06561] we recently proposed an out-of-equilibrium setup to reduce the large auto-correlations of the topological charge in two-dimensional CP^{N-1} models. Our proposal consists of performing open-boundaries simulations at equilibrium, and gradually switching on periodic boundary conditions out-of-equilibrium. Our setup allows to exploit the reduced auto-correlations achieved with open-boundaries, avoiding at the same time unphysical boundary effects thanks to an Jarzynski-inspired reweighting-like procedure. We present preliminary results obtained applying this setup to the 4d SU(3) pure-gauge theory and we outline a computational strategy to mitigate topological freezing in this theory.

Primary authors: NADA, Alessandro (Università di Torino); BONANNO, Claudio (IFT UAM/CSIC Madrid); VADACCHINO, Davide (University of Plymouth)

Presenter: VADACCHINO, Davide (University of Plymouth)

Session Classification: Poster session and reception

Track Classification: Algorithms and Artificial Intelligence