LATTICE 2024

LIVERPOOL

Contribution ID: **386**   Type: **Talk**

Multilevel algorithm for glueball calculations

Thursday, 1 August 2024 10:20 (20 minutes)

In this talk I will present the main results of our recent use of multilevel sampling to more efficiently reduce the error of glueball two-point functions in pure gauge theory. I will then discuss how multilevel can be combined with distillation techniques for quenched QCD simulations. In particular, I will present some preliminary results for disconnected contributions of two-pion correlation functions that enter into the analysis of glueball-meson mixing.

Primary authors: BARCA, Lorenzo (DESY); FINKENRATH, Jacob (CERN); KNECHTLI, Francesco (University of Wuppertal); MARTINS, Sofie (University of Southern Denmark); PEARDON, Michael (Trinity College Dublin); SCHAEFER, Stefan (NIC, DESY); URREA NINO, Juan Andres (Bergische Universität Wuppertal)

Presenter: BARCA, Lorenzo (DESY)

Session Classification: Algorithms and artificial intelligence

Track Classification: Algorithms and Artificial Intelligence