

Gluon Field Digitization for Quantum Computers

Thursday, August 6, 2020 3:00 PM (20 minutes)

The efficient digitization required for the quantum simulations of QCD can be obtained by approximating continuous $SU(3)$ gluon fields by discrete subgroups. In this talk, we discuss on-going efforts to develop this program of digitization: deriving improved discrete group lattice actions, classical simulations for quantifying systematic errors, and implementable circuits for digital quantum computers.

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Session Classification: Theoretical Developments

Track Classification: Theoretical Developments