New Perspectives 2020 (2.0)



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Gluon Digitization for Quantum Computers

Tuesday, 25 August 2020 14:00 (15 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.

Primary author: Dr LAMM, Henry (Fermilab)Presenter: Dr LAMM, Henry (Fermilab)Session Classification: Tuesday Afternoon