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The phase diagram at finite baryon and isospin densities at strong coupling

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The Hamiltonian formulation of lattice QCD with staggered fermions in the strong coupling limit can be extended to 2 flavors. It has no sign problem at non-zero baryon density and isospin densities and allows for Quantum Monte Carlo simulations. We have implemented a Quantum Monte Carlo algorithm to measure the baryon and isospin densities in the μ_B - μ_I plane in the chiral limit. We also comment on the possibility to carry out corresponding simulations on a quantum computer.

Topical area

QCD at Non-zero Density

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