

## Coherent Lattice QCD

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Abstract: I propose the formulation of lattice QCD wherein all elements of the theory (gauge action, fermionic action, theta term, and the operators) are constructed from a single object, namely the lattice Dirac operator with exact chiral symmetry. Various formulations of such *coherent lattice QCD* are presented, revealing interrelations between fermionic and gauge aspects of the theory. It is suggested that, among other things, coherent lattice QCD could entail ensembles dominated by configurations with high degree of space-time order, and is thus expected to be suitable for exploration of fundamental QCD vacuum structure.