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Lattice Gauge Theory

KOSTAS ORGINOS, College of William and Mary

Quantum Chromodynamcs (QCD) is now established as the theory of strong interactions. A plethora of hadronic physics phenomena can be explained and described by QCD. From the early days of QCD, it was clear that low energy phenomena require a non-perturbative approach. Lattice QCD is a non-perturbative formulation of QCD that is particularly suited for numerical calculations. However, it was obvious from the very beginning that enormous computer power is required to achieve results relevant to phenomenology. Today, in the era of petaflop computing, a significant stream of reliable results has been produced from Lattice QCD. I will review the most recent results, relevant to Nuclear Physics. In particular, I will focus on results for the spectrum, structure and interactions of hadrons, as well as discuss recent studies of QCD at non-zero temperature. Finally, I will comment on the opportunities opening up as we approach the era of exaflop computing.