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Recent results on QCD thermodynamics from lattice simulations

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First principle investigations are of fundamental interest for the study of the QCD phase diagram, both in their own right, and in light of experimental measurements from heavy-ion collision experiments, as well as from future observations from gravitational waves. Though not much is known (but much is conjectured) about the phase structure of QCD, a lot of progress has been made in the exploration of QCD thermodynamics. Direct simulations at finite baryon density are very difficult, owing to the complex action problem, yet a number of different approaches allow to access finite-density thermodynamics. I will discuss our knowledge of the QCD phase diagram and present recent lattice results on a number of thermodynamic quantities.

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