

Large N Thermodynamics with Dynamical Fermions

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To date, studies of the thermodynamics of QCD in the limit of large number of colors have been limited to the quenched approximation, i.e., the behavior of pure SU(N) gauge theory at large N. We present a progress report on our investigation of the phase structure of large-N QCD in the presence of (Wilson) fermions with finite mass. We explore the light quark mass regime by simulating with two flavors of dynamical fermions in SU(3-5), and investigate the heavy quark mass regime by reweighting around $\kappa = 0$ in SU(3-7).

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