

Transition temperature and the equation of state from lattice QCD, Wuppertal-Budapest results

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The QCD transition is studied on lattices up to $N_t=16$. The strange susceptibility the chiral condensate and the renormalized Polyakov loops are presented. The equation of state is determined on lattice with $N_t=6,8,10$ and at some temperature values with $N_t=12$. The pressure, the trace anomaly, the energy and entropy density and the speed of sound are presented as functions of the temperature in the range 100 ...1000 MeV . We give estimates for the pion mass dependence and for the contribution of the charm quark. We compare our data to the equation of state obtained by the “hotQCD” collaboration.

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