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Equation of State and Phase Instabilities near the Chiral Critical

Point¹ JOSEPH KAPUSTA, University of Minnesota, LASZLO CSERNAI — The thermodynamics and critical exponents of high temperature and dense matter near the chiral critical point is studied. The parameterized equation of state matches on to that calculated with lattice QCD at zero chemical potential and to the known properties of nuclear matter at zero temperature. The extent to which finite size effects wash out the phase separation near the critical point is determined. The degree to which the critical point acts as an attractor in high energy heavy ion collisions is also investigated.

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