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Equation of state of finite-density 2color QCD at lower temperature from lattice simulations

Friday 4 July 2025 11:00 (20 minutes)

We investigate the equation of state (EoS) of two-color QCD at low temperature and high density using lattice Monte Carlo simulations. Our results show that the speed of sound exceeds the relativistic limit ($c^2_s/c^2 = 1/3$) after the BEC–BCS crossover in the superfluid phase. We also discuss the temperature dependence of the EoS within the superfluid phase. This talk is based on arXiv:2207.01253, 2405.20566, and work in progress.

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