

Equation of State at Finite Baryon Density and External Magnetic Field from Lattice QCD

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The report is devoted to lattice study of QCD equation of state (EoS) at finite baryon chemical potential and nonzero external magnetic field. The simulations are performed with rooted dynamical staggered u , d , and s quarks at physical quark masses. In view of the sign problem, the study is carried out at imaginary chemical potential. The results are analytically continued to real chemical potential domain. We present our preliminary results for pressure computed for various values of temperature and magnetic field.

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