

Influence of relativistic rotation on the equation of state of gluodynamics

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Relativistic rotation may have some impact on various properties of quark-gluon plasma. For example, lattice simulations show an increase in critical temperature of both QCD and gluodynamics due to rotation. In this report the first lattice study of an effect of rotation on gluodynamics' equation of state will be presented. In particular, it will be shown that in deconfinement phase rotation's impact on free energy density changes sign with temperature increase.

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