

## Precision study of the equation of state of rotating gluon plasma

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Using first-principle numerical simulations of the lattice  $SU(3)$  gauge theory, we study the equation of state of the rigidly rotating gluon plasma. We expand the free energy of the rotating system in a series of angular velocity and measure three coefficients of this expansion. The second order correction is associated with the specific moment of inertia of gluon plasma, while the higher order coefficient describes how the moment of inertia depends on the velocity of rotation due to the mass-energy redistribution.

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