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Impact of magnetic field on the evolution of quark gluon plasma

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The equation of state (EoS) of quark-gluon plasma (QGP) using a phenomenological model is studied with magnetic field effect. The calculations with the effective mass of quark are modified in the presence of magnetic field. The results presented using thermodynamic variables are significantly affected by effective quark mass and with the magnetic field. The model results provide EoS of QGP which are in good agreement with Lattice QCD results and also enhance appreciably as comparison to the other work. Thus, this model is successfully applied to the description of the properties of quark-gluon plasma created in the collision of nucleons and give the useful information in the study of high energy heavy-ion collisions.

Internet talk

Is this abstract from experiment?

No

Name of experiment and experimental site

N/A

Is the speaker for that presentation defined?

Yes

Details

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