



Contribution ID: 897

Type: Poster

The weak magnetic field effect on dilepton polarization in heavy-ion collisions

The measurement of the magnetic field created in high-energy heavy-ion collisions is challenging, due to the fact that the magnetic field decays so drastically that in a thermalized quark-gluon plasma the field strength becomes rather weak. By incorporating the weak magnetic effect into the medium, and especially into the production formalism of dileptons from the quark-gluon plasma, the effect of dilepton polarization is studied through the dilepton angular distribution. We find that the anisotropic coefficients in the dilepton spectrum are quite sensitive to the orientation and strength of the weak field. Accordingly, these coefficients provide ideal probes for the magnetic field in realistic experiments.

Category

Theory

Collaboration (if applicable)

Author: WEI, Minghua (Anhui University of Science and Technology)

Co-author: YAN, Li (Fudan University)

Presenter: WEI, Minghua (Anhui University of Science and Technology)

Session Classification: Poster session 2

Track Classification: Electromagnetic probes