

Chirality, magnetic field and parity violation in hot QCD matter

Monday 23 May 2011 15:00 (20 minutes)

An overview of the recent progress in understanding the interplay of quantum anomalies, chirality, and magnetic field in the dynamics of QCD fluid will be presented. The current theoretical description of the chiral magnetic and chiral vortical effects within anomalous magnetohydrodynamics will be described. It allows a quantitative approach to these phenomena in heavy ion collisions, and the first results from such studies will be reviewed.

The existing and future experimental measurements needed to establish or refute the local violation of parity in hot QCD matter will be discussed.

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