Contribution ID: **120** Type: **Talk**

Overview of STAR Measurements on Flow, Chirality, and Vorticity

Tuesday 3 September 2024 16:25 (20 minutes)

The STAR experiment at RHIC studies Quantum Chromodynamics (QCD) via relativistic heavy ion collisions. Anisotropic flow are sensitive to the initial geometry and expansion dynamics in heavy-ion collisions, and are a valuable probe to study the Equation of State of the produced matter. Global angular momentum and anisotropic flow each can generate vorticity in QCD matter produced in heavy-ion collisions, leading to the polarization of hyperons. The strong magnetic field created by the spectator protons can cause charge separation because of the QCD chiral anomaly from vacuum fluctuations through the phenomenon known as the chiral magnetic effect. In this talk, we will present measurements by STAR experiment related to flow, chirality, and vorticity, which probe the QCD matter created in these collisions.

Internet talk

Yes

Is this an abstract from experimental collaboration?

Yes

Name of experiment and experimental site

STAR Collaboration

Is the speaker for that presentation defined?

Yes

Details

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