

Global polarization of Λ and Ξ hyperons in Au+Au collisions in the STAR experiment

Global polarization of Λ hyperons appearing in non-central heavy-ion collisions was measured by the STAR experiment at RHIC for Au+Au collisions with $\sqrt{s_{NN}} = 3-200$ GeV and at the LHC for Pb+Pb collisions with $\sqrt{s_{NN}} = 2.76$ and 5.02 TeV. Global polarization reflects the vortical structure of quark-gluon matter at its initial evolution stage.

Global polarization of multistrange hyperons, such as Ξ , can provide new information for hydrodynamic description of the system and its vorticity nature. In this talk, we will report results of Ξ and Λ global polarization measurement for Au+Au collisions at $\sqrt{s_{NN}} = 19.6, 27,$ and 54.4 GeV.

The speaker is a student or young scientist

Yes

Section

1. Intermediate and high energies, heavy ion collisions

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