

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

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The study of global polarization in heavy-ion collisions has revealed the presence of a vortical fluid with significant angular momentum and vorticity. This phenomenon can be observed through weak decays of particles such as Λ hyperons. Experimental data of Λ global polarization from RHIC and LHC provided opportunity to get new insights into the collective behavior and hydrodynamic description of the system.

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

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