

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

Egor Alpatov (for the STAR collaboration)

National Research Nuclear University MEPhI

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 $\sqrt{s_{NN}} = 19.6, 27, \text{ and } 54.4$ GeV.