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

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The hot dense matter produced in non-central heavy-ion collisions possess a large initial orbital angular momentum. This initial orbital angular momentum leads to global polarization of hadrons produced after hadronization, which could be measured via CP-violating weak decays of hyperons. The STAR experiment observed non-zero Λ global polarization. Large amount of new data provide an opportunity to measure multistrange hyperon polarization. It could be an important input for hydrodynamic studies of the system. It this talk, we will report results of Ξ hyperon global polarization ($P_{\Xi^- + \overline{\Xi}^+}$) measurement for Au+Au collisions at $\sqrt{s_{NN}}$ = 27, 54.4 GeV and 200 GeV.