

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

3 Egor Alpatov (for the STAR collaboration)

4 National Research Nuclear University MEPhI

5 Vortical structure of hot-dense matter in heavy ion collisions can be
6 observed through global polarization of emitted particles. Hyperon's
7 weak decays provides opportunity to measure this phenomenon. Global
8 polarization of Λ hyperons was measured by the STAR experiment at
9 RHIC for Au+Au collisions with $\sqrt{s_{NN}} = 3-200$ GeV and at the LHC
10 for Pb+Pb collisions with $\sqrt{s_{NN}} = 2.76$ and 5.02 TeV.

11 Global polarization of multistrange hyperons, such as Ξ , can pro-
12 vide new information for hydrodynamic description of the system and
13 its vorticity structure. In this talk, we will report results of Ξ global
14 polarization measurement for Au+Au collisions at $\sqrt{s_{NN}} = 19.6$ and
15 27 GeV.