



Contribution ID : 760

Type : Oral talk

Global hyperon polarization in Au+Au collisions at $\sqrt{s_{NN}} = 27$ GeV in STAR experiment

Wednesday, 7 October 2020 18:40 (15)

The Quark-Gluon Plasma (QGP), appearing in non-central nuclear-nuclear collisions is generated with large orbital angular momentum. Spin-orbit coupling aligns spin directions of produced particles with system angular momentum, known as vorticity. Properties of hyperon weak decays lead to the way of measuring polarization, that reflects vorticity. The global polarization of Λ and $\bar{\Lambda}$ hyperons was measured for Au+Au collisions at $\sqrt{s_{NN}} = 7.7 - 200$ GeV recorded with the STAR at the RHIC. However, it is also important to measure the global polarization of different particle species. In this talk we will report new results of hyperon global polarization ($P_{\Lambda+\bar{\Lambda}}$ and $P_{\Xi-\Xi+}$) measurement via different methods for high-statistics Au+Au collisions at $\sqrt{s_{NN}} = 27$ GeV.

Primary author(s) : Mr. ALPATOV, Egor (NRNU MEPhI)

Presenter(s) : Mr. ALPATOV, Egor (NRNU MEPhI)

Session Classification : Heavy Ion Physics

Track Classification : Heavy Ion physics