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## Measurement of global polarization of $\Lambda$ hyperons in Au+Au $\sqrt{s_{NN}} = 7.2$ GeV fixed-target collisions at RHIC-STAR experiment

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Non-central heavy-ion collisions produce a large angular momentum that leads to vorticity of the created system.

Due to the spin-orbit coupling, spin directions of particles are aligned with the orbital angular momentum of the system.

Global polarization of  $\Lambda$  and  $\bar{\Lambda}$  hyperons has been measured in Au+Au collisions from  $\sqrt{s_{NN}} = 7.7$  GeV to 200 GeV.[1,2]

The STAR fixed target program provides an opportunity to extend such measurements at even lower energies. Additionally,  $\Lambda$  global polarization is also influenced by magnetic field at the initial stage. It would be interesting to investigate such a effect towards lower beam energies.

In this talk, measurement of global polarization of  $\Lambda$  hyperons in Au+Au collisions at  $\sqrt{s_{NN}} = 7.2$  GeV with the fixed-target configuration is reported and compared with the results at other collision energies.

[1]L. Adamczyk et al.(STAR), Nature 548 62 (2017).

[2]J. Adam et al.(STAR), Phys. Rev. C 98 14910 (2018).

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