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## Measurement of global polarization of $\Lambda$ and $\bar{\Lambda}$ in Au+Au collisions from the RHIC Beam Energy Scan-II

Significant global hyperon polarization has been observed in non-central heavy ion collisions providing evidence of the vorticity of QGP. This effect can serve as a new probe in exploring fluid properties of strongly interacting matter. We present results of  $\Lambda$  and  $\bar{\Lambda}$  global polarization in Au+Au collisions at  $\sqrt{s_{NN}}=7.7, 9.2, 11.5, 14.6$  and  $17.3$  GeV from RHIC BES-II with upgraded STAR detectors. These results offer new insights into the polarization mechanism and vorticity fields in heavy-ion collisions, enabling the study of possible magnetic field-driven effects through the polarization difference between  $\Lambda$  and  $\bar{\Lambda}$  hyperons.

### Category

Experiment

### Collaboration (if applicable)

STAR

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