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

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**Abstract**

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.