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Vorticity in the QGP liquid and Lambda polarization at the RHIC BES energies

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We study the formation of collective flow vorticity in non-central heavy ion collisions at RHIC Beam Energy Scan collision energy range, $\sqrt{s_{NN}} = 7.7 \dots 200$ GeV with state-of-the-art viscous hydro model, vHLLE+UrQMD. With the model adjusted to approach the experimental data for rapidity, transverse momentum distributions and elliptic flow of produced hadrons, we explore the collision energy and centrality dependence of the thermal vorticity and the resulting polarization of produced Lambda baryons. We show the dependence of polarization on transverse momentum and rapidity.

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