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Vortical structures and strange hyperon polarization in heavy-ion collisions

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We study vorticity and hydrodynamic helicity in semi-peripheral heavy-ion collisions using the kinetic model of Quark-Gluon Strings. The angular momentum, which is a source of P-odd observables, is preserved with a good accuracy. We observe formation of the specific toroidal structures of the vorticity field. Their existence, accompanied by the strange chemical potential, is mirrored in the polarization of hyperons of the percent order.

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