

# Strangeness in Quark Matter 2019



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## Polarization of quarks and hadrons in heavy-ion collisions

*Tuesday 11 June 2019 16:30 (20 minutes)*

The role of kinetic and hydrodynamic degrees of freedom in generation of vorticity and hydrodynamic helicity is considered. The structure of emerging vortex sheets and quadrupole vorticity patterns is studied in detail. The emergence of compressibility in the framework of kinetic description is explored. The transition of vorticity and hydrodynamic helicity to polarization of quarks and hadrons is considered and compared. The robust and specific features of different mechanisms of polarization transition are discussed and the experimental tests of their discrimination are suggested. The specific role of experiments at NICA complex at JINR is outlined.

### Collaboration name

### Track

Hydrodynamics, chirality and vorticity

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