

The 6th International Conference on Chirality, Vorticity and Magnetic Field in Heavy Ion Collisions



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Helical effects for thermal fermions and polarization asymmetry

Content

Recent evidence from relativistic heavy ion collisions (HICs) experiments confirmed the global significance of the vorticity to polarisation transfer through the spin-orbit coupling predicted by the Dirac equation. A well-known example is the Chiral vortical effect (CVE) linking the flow of chirality to the local medium vorticity. This talk focusses on the novel helical vortical effect (HVE), which predicts also a flow of helicity. The significance of the HVE considered alongside the CVE is revealed in the context of the polarization asymmetry between matter and anti-matter observed in lower energy HICs.

Field of Research

Vorticity and Polarization

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