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Type: **Talk**

Chiral Separation effect in non - homogeneous systems

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We discuss chiral separation effect in the systems with spatial non - homogeneity. It may be caused by non - uniform electric potential or by another reasons, which do not, however, break chiral symmetry of an effective low energy theory. Such low energy effective theory describes quasiparticles close to the Fermi surfaces. In the presence of constant external magnetic field the non - dissipative axial current appears. It appears that its response to chemical potential and magnetic field (the CSE conductivity) is universal. It is robust to smooth modifications of the system and is expressed through an integral over a surface in momentum space that surrounds all singularities of the Green function. In itself this expression represents an extension of the topological invariant protecting Fermi points to the case of inhomogeneous systems.

Is this abstract from experiment?

No

Internet talk

Yes

Name of experiment and experimental site

N/A

Is the speaker for that presentation defined?

Yes

Details

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