Department of Physics

Chiral magnetic effect in Weyl semi-metal

My research mainly focuses on the topology of quantum phases, and studying its effect on material properties. Specifically, I am interested in Weyl semi-metals. It is a type of material with point degeneracy between energy bands.

Techniques used in study

Theoretical condensed matter physics



Hall conductivity and chiral magnetic coefficient as functions of chemical potential in a simplified Weyl semi-metal at different temperatures.

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Background: Ph. D. in physics, University of Texas at Austin, Austin TX USA

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Publications

- M.C. Chang and M.F. Yang, Chiral magnetic effect in the absence of Weyl node, Phys. Rev. B 92, 205201 (2015).
- M.C. Chang and M.F. Yang, Chiral magnetic effect in a 2-band lattice model of Weyl semimetal, Phys. Rev. B 91, 115203 (2015).

