Macroscopic signature of Weyl nodes in a correlated ferromagnetic kagome metal

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It is widely thought that flat-bands as well as Dirac crossings can be supported in kagome materials from a relatively simple tight-binding model of a single or a few kagome layers. There have been attempts to extrapolate these interesting results to real 3D crystals containing infinite stacks of kagome layers as well as other ingredients, which can be proven to be much more complex. On the other hand, density functional theory (DFT) calculations have predicted that Weyl nodes exist in a large number of kagome systems with either antiferromagnetic or ferromagnetic order[1]. In this talk, I will present recent work showing how the Weyl nodes can be manifested in macroscopic transport measurements[2-4].

References

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