

Contribution ID: 568

Type: Invited Oral

## M2Or3K-01: [Invited] Emergent Pseudogravity in Magnetic Weyl Semimetals

Tuesday 11 July 2023 16:15 (30 minutes)

In the pantheon of topological materials, Weyl semimetals have been a persistent focus due to the predictions of interesting anomalous effects such as the chiral anomaly, the Nieh-Yan anomaly, and axion electrodynamics, that are normally expected to be found in the realm of high-energy physics rather than condensed matter physics. Nonetheless, while theoretically feasible, the observation of these effects in Weyl semimetals often is quite difficult due to the presence of many trivial band excitations at the same energy as the topological excitations. Recent work has shown that the topological aspects of Weyl semimetals may be distilled from the overall excitations of the system via the realization that the relevant Weyl physics has another high-energy parallel to systems connected to a distorted spacetime metric referred to as pseudogravity. In this talk, I will discuss how pseudogravity naturally emerges in Weyl semimetals and address some of the open problems associated with the pseudogravitational interpretation of Weyl semimetals with a focus on understanding recent experimental results.

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Session Classification: M2Or3K: Special Session: Topological Materials for Electronics VI