Magneto-optics of electrons in conical bands

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Intriguing analogies to relativistic systems have largely helped to understand the electronic properties of various solid-state systems. These include, for instance, 2D graphene, surfaces of topological insulators as well as novel 3D Dirac/Weyl semimetals, as well as certain narrow gap semiconductors. In this talk, I will brifly discuss how the relativistic-like dispersion of electrons in solids impacts their magneto-optical properties, and in turn, how can magneto-optical spectroscopy visualize their electronic bands, or in general, contribute to our understanding of physical phenomena related to these systems.