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**Quantum Oscillations in Weyl and Dirac Semimetal Ultra-Thin Films** DANIEL BULMASH, XIAO-LIANG QI, Stanford University — We show that a thin film of Weyl or Dirac semimetal with a strong in-plane magnetic field becomes a novel two-dimensional Fermi liquid with interesting properties. The Fermi surface in this system is strongly anisotropic, consisting of a combination of chiral bulk channels and the Fermi arcs. The area enclosed by the Fermi surface is proportional to the magnetic field component parallel to the Weyl/Dirac node splitting, which leads to unusual behavior in quantum oscillations when the magnetic field is tilted out of the plane. We estimate the oscillation frequencies and the regimes where such effects could be seen in  $\text{Cd}_3\text{As}_2$  and TaAs.

Daniel Bulmash  
Stanford University

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