Abstract Submitted
for the MAR17 Meeting of
The American Physical Society

Meissner effect and Hall viscosity in Weyl superconductors XU DOU, BRUNO UCHOA, Univ of Oklahoma — The electromagnetic response reveals important properties of topological materials, such as the anomalous Hall effect of Weyl semimetals and superconductors. The response to the lattice deformation provides another way to characterize a topological nontrivial material, and the features of this response are effectively captured by the dissipationless Hall viscosity. We discuss the Meissner response of Weyl superconductors that break time reversal symmetry and derive their Hall viscosity due to elastic lattice deformations. We address possible experimental signatures for those observables in the superconducting state.

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Date submitted: 11 Nov 2016 Electronic form version 1.4