**Disorder-induced transport properties in Weyl semimetals** CAIO
LEWENKOPF, BRUNO RIZZO, Universidade Federal Fluminense, ALEXIS HER-
NANDEZ, Universidade Federal do Rio de Janeiro — We study the transport proper-
ties of Weyl semimetals in the presence of generic disorder. We propose a discretiza-
tion scheme of the Weyl Hamiltonian that avoids the fermion doubling problem
and allows to include an external magnetic field, making possible a direct calcu-
lation of spectral and magnetotransport properties. We show the efficiency of the
method by calculating the density of states near the Weyl point and of quantum
transport properties at the Weyl point in a variety of situations and comparing with
the literature results. We consider external magnetic fields to study the effect of
disorder in the magnetoconductivity near a Weyl node, analysing the possibility of
a disorder-induced phase transition from a pseudo-ballistic to a diffusive regime.

Caio Lewenkopf
Universidade Federal Fluminense

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