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A Kohn Luttinger perspective on topological superconductivity[1]
RONNY THOMALE, Stanford University, CHRISTIAN PLATT, WERNER HANKE, Universitaet Wuerzburg — On the basis of an orbital angular momentum and point group symmetry analysis, we argue that electron-driven fluctuations from the viewpoint of a Fermi surface instability generically provide a propensity towards topological superconductivity when the irreducible lattice representations associated with the Cooper pairs are multi-dimensional. For illustration, we explicate our generation recipe of topological superconductivity for the cases of ruthenates, cobaltates, and graphene doped to van Hove filling, i.e. representatives for square, triangular, and honeycomb lattice pairing.

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