Topological invariants of adiabatic cycles of Bloch Hamiltonians

RAHUL ROY, Oxford University — Invariants are constructed for various adiabatic cycles of Bloch Hamiltonians and discuss their physical implications. Many of these cycles lead to a pumping of fermions, but in other cases, the physical implications are more subtle. I also discuss the construction of these invariants for insulators in the various symmetry classes and periodicities in the table of these invariants.

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