# Thouless pumping in a Floquet-driven lattice

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Thouless pumps allow robust quantised transport of particles in one-dimensional periodic potentials, in which the Hamiltonian is varied in a slow, cyclic manner. The time-trace of the adiabatic change plays the role of a second dimension, in which the topological pump can be understood as a quantum Hall effect. Previously, Thouless pumps in atomic and optical systems have relied on 'sliding' the underlying potential landscape in order to induce transport. However, such strong deformations of the lattice potential are not feasible in solid crystals, limiting the application of topological pumping to real-world materials. Here, we employ a Floquet drive to experimentally realise a topological pump in a generic sinusoidal lattice without any sliding potentials. Two-frequency lattice shaking is used to adiabatically prepare a topological Floquet-Bloch band, starting from a trivial insulating state of ultracold fermions. Near-quantised charge transport is achieved by modulating the drive waveform slow enough to ensure adiabaticity. Our results pave the way for studying topological pumping in Floquet-driven real materials.