CLÉMENT TAUBER, ETH Zürich

Bulk-edge correspondence for Floquet topological insulators

Floquet topological insulators describe independent electrons on a lattice driven out of equilibrium by a time-periodic Hamiltonian, beyond the usual adiabatic approximation. In dimension two such systems are characterized by integer-valued topological indices associated to the unitary propagator, alternatively in the bulk or at the edge of a sample. In this talk I will give new definitions of the two indices, relying neither on translation invariance nor on averaging, and show that they are equal. In particular disorder and defects are intrinsically taken into account. This is a joint work with Gian Michele Graf.