

Adiabatic Time Evolution and Quasi-Static Processes in Translation-Invariant Quantum Systems

mardi 27 juin 2023 09:00 (45 minutes)

I will talk about slowly varying and non-autonomous quantum dynamics of a translation invariant spin or fermion system on the lattice. This system is assumed to be initially in thermal equilibrium, and we consider realizations of quasi-static processes in the adiabatic limit. By combining the Gibbs variational principle with the notion of quantum weak Gibbs states, I will present some general structural results regarding such realizations. In particular, such a quasi-static process is incompatible with the property of approach to equilibrium, presented in Claude-Alain's talk. This talk is based on a joint work with V. Jaksic and C.-A. Pillet.

Orateur: TAUBER, Clément (Université de Strasbourg)