P. Calabrese: *Quantum quenches in one dimensional systems*

Non-equilibrium quantum systems represent one of the most promising possibilities for realizing novel states of matter. I will consider the non equilibrium situation known as quantum quench, in which a closed system evolves from an initial state that is not a Hamiltonian eigenstate such as those achieved by suddenly switching a control parameter. An important question is under what conditions the system reaches a stationary state and in which circumstances this state is characterized by an effective "thermal", i.e. equilibrium, distribution. I will discuss how to obtain the time evolution of observables and correlation functions with a variety of theoretical techniques including quantum field theory (in particular CFT) and integrability.