Non-equilibrium dynamics of a driven Ising model coupled to a dissipative bath

ANZI HU, Department of Physics, American University, MOHAMMAD MAGHREBI, Joint Quantum Institute, University of Maryland-College Park and Department of Physics, Michigan State University — We discuss numerical studies on the dynamics and steady state properties of a driven transverse-field Ising model coupled to a dissipative bath. We consider various parameter regions, and identify regimes where the non-equilibrium quantum system can be mapped to a classical Ising model at an effective temperature determined by the transverse field and the dissipation.