Strongly correlated fermions after a quantum quench

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Using the adaptive time-dependent density-matrix renormalization group method, we study the time evolution of strongly correlated spinless fermions on a one-dimensional lattice after a sudden change of the interaction strength. For certain parameter values, two different initial states (e.g., metallic and insulating), lead to observables which become indistinguishable after relaxation. We find that the resulting quasi-stationary state is non-thermal. This result holds for both integrable and non-integrable variants of the system.