

Rutgers University
Hill Center - Room 705

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Heat conduction in the asymmetric Fermi-Pasta-Ulam chain

Abstract

Recent simulation results on heat conduction in one-dimensional systems with asymmetric inter-particle potentials suggest the possibility of normal heat transport in these systems at low temperatures. This is contrary to the general belief that heat conduction in one-dimensional momentum conserving systems is anomalous. I will discuss some of our recent simulation results on this problem. Both non-equilibrium and equilibrium Green-Kubo results will be presented. Some results on decay of equilibrium fluctuations in this system will also be discussed.