



BOSE COLLOQUIUM

Friday, 27 December 2013

4.00 pm

Fermion

Speaker:

Abhishek Dhar

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Title:

**Puzzles in the theory of heat conduction
in low-dimensional systems**

Abstract:

Fourier's law of heat conduction predicts that heat propagation in a solid is diffusive. Fourier's law is a phenomenological macroscopic law and its derivation for a microscopic model with Hamiltonian dynamics is an open problem. A large number of studies over the last few decades suggest that this law is in fact not generally valid in low-dimensional systems. It appears that the heat carriers perform super-diffusive Levy walks rather than simple random walks. I will discuss what we presently know about this problem and some of the interesting open questions in this field.
