Contribution Title: DIFFUSION IN COUPLED MAP LATTICES

Authors: J.Bricmont, A. Kupiainen

Presenting author: Kupiainen A.
Affilation: Helsinki University
E-mail: ajkupiai@cc.helsinki.fi
Invited speaker: Topical session

YRS seminar: NO

We consider a dynamical system consisting of subsystems indexed by a lattice. Each subsystem has one conserved degree of freedom ("energy") the rest being uniformly hyperbolic. The subsystems are weakly coupled together so that the sum of the subsystem energies remains conserved. We prove that the subsystem energies satisfy diffusion equation in a suitable scaling limit.