**ADVANCED WORKSHOP ON ENERGY TRANSPORT IN
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Kinetic Approach to 1D Energy Transport

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Abstract:

Kinetic theory is limited to weak interactions/nonlinearities. But in this regime the numerical computation with the kinetic equation is much faster than the simulation of the full hamiltonian dynamics. In some cases also analytical results are available. In particular, the dependence on model parameters is accessible. As specific examples I will discuss the Fermi-Pasta-Ulam chain with quartic interactions and the quantum Hubbard chain.