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| Contribution Title: | FROM MICROSCOPIC DYNAMICS TO HEAT EQUATION: A WEAK COUPLING APPROACH |
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| Invited speaker: | Topical session |
| YRS seminar: | NO |

We consider a chain of weakly coupled oscillators whose Hamiltonian dynamics is perturbed by stochastic terms that conserve kinetic energy of each particle. In a large-time weak-coupling limit, the energies of the particles evolves autonomously following a (non-gradient) stochastic Ginzburg-Landau dynamics. Then a non linear heat equation can be deduced from this stochastic dynamics under a hydrodynamic diffusive limit.