

Slow thermalization in FPUT and Quantum Lattice Systems

Abstract: “In this talk, I will present recent results on the asymptotic integrability of the Fermi–Pasta–

Ulam–Tsingou (FPUT) chain in the thermodynamic limit. In particular, I will show how the KdV hierarchy emerges as the resonant normal form of the FPUT model. I will then discuss how the techniques of resonant normal forms can be extended to the study of many-body fermionic lattice systems in the thermodynamic limit. In this context, I will outline the main ideas underlying the proof of prethermalization in lattice models subjected to fast quasi-periodic external drivings. This is based on joint work with A. Ponno, B. Rink, and B. Langella.”

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