



Mathematics and CS Seminar

Prethermalization for deformed Wigner matrices

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Host: Laszlo Erdős

We prove that a class of weakly perturbed Hamiltonians of the form $H_\lambda = H_0 + \lambda W$, with W being a Wigner matrix, exhibits prethermalization. That is, the time evolution generated by H_λ relaxes to its ultimate thermal state via an intermediate prethermal state with a lifetime of order λ^{-2} . Moreover, we obtain a general relaxation formula, expressing the perturbed dynamics via the unperturbed dynamics and the ultimate thermal state. The proof relies on a two-resolvent law for the deformed Wigner matrix H_λ . Based on a joint work with L. Erdős, J. Reker, and V. Riabov.

Tuesday, December 12, 2023 04:15pm - 05:15pm

Heinzel Seminar Room (I21.EG.101), Office Building West, ISTA



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