Numerical Analysis and Scientific Computing Seminar

The Fermi-Pasta-Ulam-Tsingou paradox: history, numeric, analytical results and some ideas (involving Neural Networks)

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Abstract: In this presentation, I tell the story of the Fermi-Pasta-Ulam-Tsingou (FPUT) paradox from its discovery to the present day. While focusing on recent developments, I introduce the concept of adiabatic invariants, a generalization of conserved quantities, as a means to solve the FPUT paradox within a probabilistic framework. Additionally, I shed light on unresolved issues that can be approached through various methodologies, including potential utilization of Neural Networks.
Zoom Option: https://emory.zoom.us/j/94678278895?pwd=bDFxK2RaOTZRMjA5bzQ4UUtxNWJsZz09

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Mathematics
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