

— Thursday : J. Verbaarschot

Title: Chaos and Relaxation in a Dissipative Sachdev-Ye-Kitaev Model

Abstract: The Sachdev-Ye-Kitaev (SYK) model is a solvable many-body theory that is maximally chaotic in the low-temperature limit. We use this model to study the effect of chaos on the relaxation to the equilibrium state when the SYK model is coupled to the environment. We find that chaos results in anomalous relaxation even in the limit that the coupling to the environment vanishes. Technically, we solve the Schwinger-Dyson equations corresponding to the Lindblad evolution both in Euclidean time and in real-time using the Keldysh formalism. An interpretation in terms of spectra of the non-Hermitian vectorized Lindblad operator is given.