Contribution ID: **6** Type: **not specified**

Operator dynamics in Lindbladian SYK

Wednesday, 29 November 2023 14:45 (15 minutes)

Under the Hamiltonian evolution, a simple operator turns into a complicated operator. The growth of such an operator is drastically different when the system is connected to a dissipative environment than in a typical closed system. We probe such growth via a recently explored measure of scrambling known as Krylov complexity and aim to propose an operator growth hypothesis in open quantum systems. By testing our hypothesis in a dissipative version of SYK model, which is a paradigmatic model of quantum chaos and a toy model of holography, we motivate the notion of "dissipative quantum chaos".

Presenter: Dr NANDY, Pratik (YITP, Kyoto University)

Session Classification: Parallel Session A