

## ICTS-String Theory Lecture

- Title : A bath that induces Lyapunov exponent (and more)
- Speaker : Swapnamay Mondal, ICTS-TIFR, Bangalore
- Date : Friday, August 16, 2019
- Time : 2:00 PM
- Venue : Chern Lecture Hall, ICTS Campus, Bangalore
- Abstract : When a smaller system (probe) is brought in contact with a larger one (bath), generically the larger system induces its temperature on the smaller one. Can there be baths, that induce other physical quantities as well? In this talk, we present a bath-probe system, where the bath induces Lyapunov exponent (along with some other quantities) on the probe. We trace back the essential physics to a particular pattern of symmetry breaking. The bath system, commonly known as SYK model, is known to capture some key features of black holes. Thus the bath-probe system might capture some key aspects of a black hole interacting with a probe.