

## **ICTS Statistical Physics Journal Club Seminar**

Title : Long-range entanglement and multiple steady states in a lossy qubit array

Speaker : Shovan Dutta (University of Cambridge, United Kingdom)

Date : Thursday, 7th January 2021

Time : 03:00 pm (IST)

Abstract : Environmental coupling typically drives a quantum system to a unique steady state with very little coherence, which is a major obstacle for quantum information processing. I will talk about a simple experimental setting of an array of two-level systems with localised pump and loss that has multiple highly coherent steady states, including maximally entangled states of nonlocal Bell pairs. Such states originate from a hidden symmetry that conserves Bell pairs over long distances, leading to controllable long-range entanglement. I will discuss how to selectively prepare and observe these states in a broad range of present-day setups.

Ref: PRL 125, 240404 (2020) [arXiv:2004.07981].

Venue : Please click on the link <https://guest.livesize.com/6823199> to join the meeting  
(Supported browser: Google Chrome)