

ICTS Seminar

- Title : Connecting holographic complexity to bulk entanglement
- Speaker : Debajyoti Sarkar, Ludwig Maximilian University of Munich, Germany
- Date : Tuesday, January 3, 2016
- Time : 2:30 PM
- Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore
- Abstract : In the context of relating AdS/CFT to quantum information theory, in this work we discuss proposals for finding boundary entities dual to the recently advocated notion of "holographic complexity". For a spherical entangling region in the ground state of the CFT, we explicitly establish two interesting connections, namely (i) we show that the reduced fidelity susceptibility is indeed the field theory dual of holographic complexity as anticipated in literature and (ii) we also show that the quantum correction to holographic complexity is related to the quantum correction to boundary entanglement entropy. We discuss consequences of both these connections.