

ICTS Colloquium

- Title : Dynamical phase transitions in Markov processes
- Speaker : Hugo Touchette, Stellenbosch University, South Africa
- Date : Monday, July 15, 2019
- Time : 3:00 PM
- Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore
- Abstract : Dynamical phase transitions (DPTs) are phase transitions in the fluctuations of stochastic processes giving rise, similarly to equilibrium phase transitions, to non-analytic points in certain potential functions. DPTs are known to arise in many nonequilibrium processes and usually involve a low-noise limit or a double long-time/large-volume limit. In this talk I will explain what DPTs are, contrasting them with equilibrium phase transitions, and will present a simple model based on Brownian motion that shows a DPT in the long-time limit, related physically to a localisation-delocalisation transition.