

# Thermalization: From Glasses to Black Holes

A US-India Advanced Studies Institute

**10-21 June 2013 at IISc Bangalore**

**Overview:** The program will feature intensive discussions of the issue of thermalization, from its conceptual foundations to applications in complex condensed-matter systems, quantum information theory, nuclear physics, and string theory, in a highly interdisciplinary setting. The target audience is junior researchers in statistical mechanics, condensed matter physics, string theory, and nuclear physics. The pedagogy will consist of lectures, tutorials, and group discussions. Limited travel support is available for participants from institutions in the US and India.

**Topics:**

1. Fundamentals of classical equilibration
2. Fluctuations and nonequilibrium thermodynamics
3. Broken ergodicity and glassy dynamics
4. Quantum information and thermalization
5. Quantum ergodicity and quantum quenches
6. Holography and equilibration

**Lecturers :**

- Leticia Cugliandolo (U. Curie, Paris)
- Sumit R. Das (U Kentucky)
- Abhishek Dhar (ICTS)
- Amit Dutta (IIT Kanpur)
- Patrick Hayden (McGill )
- Jorge Kurchan (ESPCI, Paris)
- Anatoli Polkovnikov (Boston U.)
- Udo Seifert (Stuttgart U.)
- Alessandro Silva (SISSA)
- Henk Van Beijeren (Utrecht U.)
- Laurence Yaffe (U. of Washington)

**Organizers:**

- Aparna Baskaran (Brandeis)
- Bulbul Chakraborty (Brandeis)
- Chandan Dasgupta (IISc)
- Matthew Headrick (Brandeis)
- Albion Lawrence (Brandeis)
- Gautam Mandal (TIFR)
- Sanjib Sabhapandit (RRI)
- Krishnendu Sengupta (IACS)

More information and application: <http://www.icts.res.in/program/ASIT2013>  
Application deadline: 15 February 2013

