



ICTS

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SCIENCES

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

## **ICTS Seminar**

Title : Relaxation to gaussian and generalized Gibbs states in systems of particles with quadratic hamiltonians

Speaker : Chaitanya Murthy, UC Santa Barbara, USA

Date : Tuesday, August 21, 2018

Time : 11:30 AM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : I will present an elementary, general, and semi-quantitative description of relaxation to gaussian and generalized Gibbs states in models of fermions or bosons with quadratic hamiltonians. The arguments apply to arbitrary initial states that satisfy a weak condition on clustering of correlations. I will also show that similar arguments can be used to understand relaxation (or its absence) in systems with time-dependent quadratic Hamiltonians, and provide a semi-quantitative description of relaxation in quadratic periodically driven (“Floquet”) systems.