

ICTS Tuesday Interactions

- Title** : Quench and out-of-equilibrium dynamics across a non- Fermi liquid to Fermi liquid transition
- Speaker** : Sumilan Banerjee, Indian Institute of Science, Bengaluru
- Date** : Tuesday, February 19, 2019
- Time** : 12:30 PM
- Venue** : Emmy Noether Seminar Room, ICTS Campus, Bangalore ICTS Campus, Bangalore
- Abstract** : How are quasiparticle excitations generated when a gapless state of interacting fermions without any quasiparticle, i.e. a non-Fermi liquid (NFL), is transformed into a more conventional Fermi-Liquid (FL) state under non-equilibrium evolution? Motivated by this question, we study sudden and slow quenches in an interacting model having a quantum phase transition from a Sachdev-Ye-Kitaev (SYK) NFL to a FL. The model, which can be realized in a graphene flake connected with leads, has SYK fermions coupled to non-interacting lead fermions