



ICTS Condensed Matter Seminar

Title : Active Reservoirs: nonequilibrium forces and transport

Speaker : Ion Santra (University of Gottingen, Germany)

Date : Monday, 23 December 2024

Time : 11:30 AM (IST)

Abstract : Active reservoirs refer to a special class of nonequilibrium reservoirs, which are made of self-propelled particles like bacteria or Janus beads. I will discuss two interesting aspects of such reservoirs. The stationary relaxation dynamics of a harmonically trapped probe particle shows qualitatively different features from equilibrium. I will show that this can be attributed to an additional force that emerges when the bath degrees are averaged over a NESS conditioned to a certain probe position. In the second part, I will discuss what happens when two active reservoirs are connected by a harmonic chain, resulting in anomalous energy transport.

Venue : Emmy Noether Seminar Room

Zoom Link: <https://icts-res-in.zoom.us/j/93445688055?pwd=7D05tGIXYcVUnOp45cwb55ZdlbSwGK.1>

Meeting ID: 934 4568 8055

Passcode: 824725