ICTS Postdoc/Graduate Student Seminar Series

Title : Should we detract history? The story of particles in flow

Speaker : Ganga Prasath, ICTS-TIFR, Bangalore

Date : Friday, July 20, 2018

Time : 11:15 AM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : Particles in fluid flows are ubiquitous, from micron sized Suspended Particulate Matter (SPM) in atmosphere to centimetre sized droplets as rain. These particles which are much smaller in size compared to any relevant length scale in flow have the property to remember their entire trajectory (their history). This makes the evolution of particle dynamics non-local in time and has been a barrier in understanding dynamics of large number of them. We try to address this issue using boundary-bulk extension ideas from partial differential equation. I will introduce how this non-locality appears in a simple example of 1-D heat equation and try to draw implications for particles.

Note: This will be an ongoing biweekly seminar series (Fridays, 11:15 am) by the ICTS postdocs and graduate students