ICTS | INTERNATIONAL CENTRE for THEORETICAL SCIENCES

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS Colloquium

Title : Geometry of Chaos in Hydrodynamic Systems

Speaker : Balachandra Suri (Institute of Science and Technology, Austria)

Date : Tuesday, 9th March 2021

Time : 04:00 pm (IST)

Abstract : Fluids driven out of equilibrium, such as water flowing in a pipe due to a pressure gradient, display a rich variety of dynamical behaviors. For instance, spatiotemporally chaotic fluid motion can emerge either gradually or abruptly upon increasing the strength of driving. Additionally, chaos resulting from either transition scenario can be sustained or transient (with a finite lifetime). Recent numerical and experimental studies, borrowing ideas from the theory of low-dimensional dynamical systems, have addressed some of these intriguing questions by identifying order that underpins chaotic dynamics. In this talk, we shall discuss some of these developments in the context of quasi-two-dimensional turbulence and hydrodynamic-quantum analogs.

Venue : Please click on the link to join the meeting.

https://zoom.us/j/94080920833?pwd=MldtTDN1K0NFUEVOM05aK1pIL3k3UT09

Meeting ID: 940 8092 0833

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