



ICTS Synopsis Seminar

Title : Studies on vortical flows: geometrical effects and inertial particle dynamics

Speaker : Saumav Kapoor (ICTS-TIFR, Bengaluru)

Date : Wednesday, 15 April 2026

Time : 3:30 PM (IST)

Abstract : Vortex dominated flows are ubiquitous in nature, ranging from turbulence to oceans to protoplanetary disks. Clustering of inertial particles in similar contexts is essential to many natural processes. I will talk about how the geometry of vortices, especially during their reconnection, relates to energy, helicity and enstrophy dynamics. Then I will talk about how a systemic rotation can cause clustering of inertial particles of varying sizes and densities near vortices, which is robust to various external perturbations to the flow field.

Venue : Madhava Lecture Hall

Zoom Link: <https://icts-res-in.zoom.us/j/92403337959?pwd=nFKyOFUYTWSfoWMVCO1lz7oGMqLSaG.1>

Meeting ID: 924 0333 7959

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