

Seminar

The Interplay of Buoyancy, Particle Inertia, and Phase Change in Vortical Flows—Implications for Cloud-flows

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The fluid mechanics of clouds covers a wide range of length and time scales, involves the complex interactions of buoyancy, particle inertia and the thermodynamics of phase change with turbulent flow. We study how these forces interact with each other and with the underlying turbulent flow (which we model using vortices). Using this approach, we gain insights into some long-standing open problems, such as the droplet-growth bottleneck in rain-forming clouds. The talk will focus on how the interaction of particle inertia and the thermodynamics of phase change affect the dynamics of a pair of vortices--a model problem involving all the forces and interactions of interest to us.

Wednesday, Aug 2nd 2017

11:30 AM (Tea/Coffee at 11:15 AM)

Auditorium, TIFR (FReT-B)