



TATA INSTITUTE OF FUNDAMENTAL RESEARCH

## **ICTS Seminar**

Title : Dynamics of waves and vortices in the ocean

Speaker : Jim Thomas (University of North Carolina at Chapel Hill)

Date : Monday, 2nd November 2020

Time : 05:30 pm (IST)

Abstract : Fluid flow is the ocean is composed of fast evolving waves and slowly

evolving vortices. Waves and vortices in the ocean interact over a broad spectrum of spatio-temporal scales. Additionally, the flows are inherently turbulent and strongly nonlinear, making it challenging to develop a physical

understanding of the fundamental processes involved.

In my talk I will present an overview of different kinds of wave-vortex interactions in the ocean and discuss the development of new and efficient reduced mathematical models to address various physical processes. The talk will explore weakly nonlinear wave interactions and strongly nonlinear turbulent exchanges in the ocean. Both reduced mathematical models and high resolution numerical simulations will be used to build a phenomenological

understanding of different physical processes.

Online : Please click on the below link to join the seminar

https://zoom.us/j/92518391737?pwd=bVhQTUl2bHhaa0tDazc0UE5YZVZid

<u>z09</u>

Seminar

Meeting ID: 925 1839 1737

Passcode: 572798