



TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS Fluid Dynamics Seminar

Title : Intraseasonal variability and the abrupt seasonal transition in the boundary

layer during monsoons

Speaker : Rajat Masiwal (Indian Institute of Science, Bengaluru)

Date : Friday, 23rd August 2024

Time : 11:30 AM (IST)

Abstract : As solar insolation increases in the northern hemisphere during boreal summer, it

is accompanied by an abrupt change in the circulation associated with the monsoons as well as heightened intraseasonal convective activity. These two aspects shape tropical weather regimes, and understanding their dynamics is crucial for extended-range forecast. This talk will present some new insights into

these two key aspects of the tropical atmosphere.

The first part will focus on intraseasonal convection, particularly its interaction with circulation. We demonstrate observational evidence of latitude-dependent convection-circulation coupling through a vertically resolved vorticity budget. In the second part, we will look at the seasonal transition of winds in the boundary layer and the resulting rapid intensification of the Somali jet just prior to the onset

of the Indian summer monsoon.

Venue : Feynman Lecture Hall

Zoom Link: https://icts-res-in.zoom.us/j/98994914880?pwd=RjiZZuG1jeq7n45mXWkAT8EAsbyWHw.1

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