ICTS | INTERNATIONAL CENTRE for THEORETICAL SCIENCES

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS Fluid Seminar (HYBRID)

Title : Cloud radar observations showing the turbulence-triggered onset of warm rain

Speaker : Madhu Chandra R. Kalapureddy (Indian Institute of Tropical Meteorology, Pune)

Date : Monday, 15th May 2023

Time : 02:00 pm (IST)

Abstract : The role of warm clouds in monsoon rainfall and the onset of the warm-rain process are investigated using quality-controlled, high-resolution cloud-sensitive radar measurements consisting of 1.8 million profiles during July–August 2015. Radar reflectivity profile can infer the vertical structure of clouds in identifying warm clouds. In the cloud droplet-to-raindrop transition, an intense spike in the spectral width (SW) indicates turbulence which triggers the growth of cloud droplets through the collision-coalescence process to form the raindrops. This study provides a multi-observation-based perspective on the macro- and micro-physical characteristics of monsoon warm clouds and the onset of warm rain for verification with theory /DNS and a better representation in the models.

Venue : **Offline:** Emmy Noether Seminar Room (ICTS)

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

https://icts-res-in.zoom.us/j/87558149190?pwd=SkRLbEZGTUtMb3VWK3FiQ0ZMR2tJdz09

Meeting ID: 875 5814 9190
Passcode: 151523

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