

04 MAY 2022

Wednesday, 11:00 IST

(05:30 UTC)

#AzadiKaAmritMahotsav

Lecture Series on

Cloud and Precipitation Physics and Dynamics



Ministry Of Earth Sciences

Government of India



Morphological and Microphysical Properties of Monsoon Precipitation Systems over the Northeastern and Eastern part of India

About the speaker:

Prof. Sanjay Sharma is involved with research and teaching at the undergraduate and postgraduate levels in the Department of Physics, Kohima Science College, (Autonomous), Kohima, Nagaland. His area of research includes the study of the regional variation of morphological and microphysical properties of precipitating convective systems, thundercloud electrification, and lightning. He has published around 30 research articles in international and national journals of repute. He has supervised six PhD students. He is the recipient of the Junior Associate award from Abdus Salam- International Centre for Theoretical Physics (AS-ICTP), Trieste, Italy, ADCOS Research Fellowship from Indian Space Research Organization (ISRO), and Governors' awards for meritorious service from the Government of Nagaland

Abstract: The knowledge of morphological and microphysical properties of precipitating systems provides a better understanding of the interaction of large-scale systems with the involved microphysical processes, which has wide applications in quantitative precipitation estimation, and parameterization of cloud and rain microphysics in numerical weather prediction models and many more. The present talk is aimed to elucidate the basics of the classification of precipitation systems based on their vertical extent and microphysical properties of precipitating systems. The distinct features of Spatio-temporal variation of morphological and microphysical properties of monsoon precipitating systems over the Northeastern and Eastern parts of India are highlighted. The evolution of rain DSDs and prevailing microphysical processes below freezing level, such as collision-coalescence-breakup is further discussed with the help of Micro Rain Radar observations.



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https://youtu.be/RPvY_yWl_g4