



Physical Research Laboratory, Ahmedabad

Colloquium 20_03

Speaker: Dr. Narendra Ojha
Space & Atmospheric Sciences Division, PRL, Ahmedabad

Title: “Atmospheric Chemistry and Dynamics over India”

Date and Time: Wednesday, 30 September 2020, 16:00 – 17:00 hrs

YouTube Link: <https://youtu.be/EgGt1h4-SIM>

Abstract

Atmospheric chemistry involving trace species such as ozone, volatile organic compounds, and aerosols, etc. profoundly impacts the air quality and climate. Nevertheless, the budgets and climatic impacts of trace species remain uncertain, especially over the Indian region due to diversity of natural and man-made emissions and sparse measurements. In addition, global models are seen to be biased more strongly over this part of the world due to unresolved complex terrains, uncertain emissions, and limited ability of global parameterizations to suit tropical Indian conditions. This talk would summarize the recent efforts and progress made in overcoming these challenges through evaluation and improvements in regional modelling. A few modelling applications to the problems of wider scientific and public interests – such as the role of crop-residue burning in widespread aerosol build up over the Indo-Gangetic Plain, and dramatic changes in air chemistry during the COVID-19 lockdown, will also be presented. Some of the outstanding issues and potential future course of action will also be discussed.

The Speaker

Dr. Narendra Ojha is working as a Reader in the Space and Atmospheric Sciences division of PRL, Ahmedabad since May 2018. He obtained his Bachelors and Masters from the University of Allahabad. He pursued his PhD at ARIES, Nainital on the distribution of ozone by performing balloon-borne and ground-based measurements. As a part of his postdoc of about four years at the Max Planck Institute for Chemistry, Mainz, he worked on the global and regional modelling focused over India and Europe. He has also served for short-periods at Argonne National Laboratory, the USA as a visiting researcher and at Graphic Era Deemed to be University, Dehradun as an Assistant Professor. At PRL, he is leading a research program on atmospheric modeling with special interests in regions of complex terrains (e.g., Himalaya and foothills) and the feedbacks between chemistry and meteorology. He is an editor for the international journal - Climanosco, an innovative platform for interactions between climate scientists and the public. He has been an author/co-author of more than 40 publications in peer-reviewed journals.

ALL ARE WELCOME

