



Physical Research Laboratory, Ahmedabad

Colloquium 19 - 11

- Speaker:** Dr. Sachin Gunthe
Associate Professor, Indian Institute of Technology (IIT) Madras, India
- Title:** “Atmospheric Aerosols in Indian Perspective: Climate and Ecosystem Health Implications”
- Time:** Wednesday, 24 July 2019, 16.00 hrs.
- Venue:** K.R. Ramanathan Auditorium, PRL

Abstract

Atmospheric aerosols form because of various emissions from industry, human activities and natural processes. They interact with incoming solar radiation directly by scattering and absorption and indirectly by changing cloud properties. Also, the changes in cloud properties lead to change in precipitation and Hydrological cycle on the Earth. Overall, aerosols are expected to counteract global warming by greenhouse gases but aerosol-cloud interaction and many biosphere-geosphere processes involving aerosols are poorly understood and therefore, they are cause for the largest uncertainty in understanding current and future climate changes. Aerosols of biological origin (bacteria, fungal spore, pollen grains, plant and animal fragments, etc.) are one of the least understood component of the climate system. An overview of changing aerosol properties including bioaerosols over India and their role in cloud and precipitation formation processes on regional and local scale will be given.

The Speaker

Dr. Sachin Gunthe obtained his MSc in Applied Physics from Pune University and PhD in atmospheric chemistry from Indian Institute of Tropical Meteorology, Pune. As a post-doctoral research fellow at the Max Planck Institute for Chemistry, Mainz, Germany, he has studied aerosol-cloud-precipitation interaction and has conducted field campaigns over Amazonian rainforest in Brazil, Siberia in Russia, Leipzig in Germany, Jungfrauoch in Switzerland and, Beijing and Guagzhou in China. He is currently an Associate Professor at IIT Madras and leading a research group that studies aerosol-biosphere-climate interaction. At IIT Madras, Dr. Gunthe has guided 4 PhD students. He is head of the Max Planck - IIT Madras Partner group for bio-aerosol research. He is a recipient of Fulbright-Nehru Academic and Professional Excellence fellowship to work at the Harvard University, USA. He is on the editorial board of the Journal: Atmospheric Chemistry and Physics since 2015.

Tea at 15:30 hrs
ALL ARE WELCOME

