

PS-01 [SESSION - 1, ORAL PRESENTATIONS]

26 Feb 2024 | Monday | 13:30 - 14:30 hrs

Venue: **Biotechnology Auditorium (Block E)**

Theme: Innovative Retrieval Techniques & Radiative Transfer

Chair: Dr. Rashmi Sharma, SAC

Co-Chair: Dr. M. Venkat Ratnam, NARL

Time	Abstract ID	Topic (Oral Presentations)	Author	Affiliation
13:30 - 13:40	PS1-O-46	Urban Change Detection in Polarimetric SAR Images using Geodesic Distance with PCA and K-means Clustering Approach	Aryan Bhardwaj, G Devendhar, and Rakesh Sharma	National Institute of Technology, Hamirpur, Himachal Pradesh.
13:40 - 13:50	PS1-O-48	Hyperspectral Satellite-based Detection of Carbon Dioxide Emissions Over Indian Thermal Power Plants Using Radiative Transfer Modelling	Hasmukh K. Varchand, Mehul R. Pandya, Jalpesh A. Dave, Parthkumar N. Parmar, Dhiraj B. Shah, Vishal N. Pathak, Dhruv D. Desai, Manoj Singh, Himanshu J. Trivedi	N. V. Patel College of Pure and Applied Sciences, CVM University, Gujarat; Space Applications Centre, Ahmedabad; Sir P. T. Sarvajanic College of Science, Surat.
13:50 - 14:00	PS1-O-49	Retrieval of aerosol optical depth from EOS-06 Ocean Color Monitor 3 over the oceanic regions around Indian subcontinent	S. S. Prijith, A. K. Athul and S. Suresh Babu	Space Physics Laboratory, Vikram Sarabhai Space Centre Indian, Thiruvananthapuram.
14:00 - 14:10	PS1-O-50	Monte-Carlo-Line by Line Radiative transfer over polyhedron geodetic grids: simulations of heating and cooling rates.	Amit P Kesarkar, Jyoti N Bhate, Subhrajit Rath, Debojit Sarkar, and Kavita Patnaik	National Atmospheric Research Laboratory, Gadanki.
14:10 - 14:20	Lightening Talk	PS1-P-186, 187, 98, 100, 101		
14:20 - 14:30		PS1-P-183, 184, 65, 66, 67		

PS-01 [SESSION - 2, ORAL PRESENTATIONS]

26 Feb 2024 | Monday | 14:30 - 15:30 hrs

Venue: **Biotechnology Auditorium (Block E)**

Theme: Space borne observations of Aerosols and Trace gases

Chair: Dr. R. P. Singh, IIRS

Co-Chair: Dr. Lokesh Kumar Sahu, PRL

Time	Abstract ID	Topic (Oral Presentations)	Author	Affiliation
14:30 - 14:40	PS1-O-24	Advancing Aerosol Monitoring Indigenously: Oceansat-3 OCM Aerosol Product for High Resolution Air Quality Assessment over Indian Landmass.	Manoj K Mishra, Pradyuman S Rathore, Raj Kumar	Space Applications Centre, ISRO, Ahmedabad
14:40 - 14:50	PS1-O-25	Contrasting Aerosol-Cloud Interaction for Non-precipitating Warm Clouds over the Eastern and Western Indo-Gangetic Plains	Aakash Kumar, P. R. Sinha, Vijayakumar S. Nair	Indian Institute of Space Science and Technology, Thiruvananthapuram; Space Physics Laboratory, Vikram Sarabhai Space Centre, Thiruvananthapuram
14:50 - 15:00	PS1-O-26	Space-borne measurement of aerosol, cloud and their interaction over Northern Indian Ocean	Shani Tiwari, Harshbardhan Kumar	Aerosol & Cloud Research Lab, CSIR- National Institute of Oceanography, Goa, India; Academy of Scientific and Innovative Research (AcSIR), Ghaziabad.
15:00 - 15:10	PS1-O-27	In-situ Measurements and Remote Sensing of Aerosol Black Carbon over India: Regional Characteristics	Mukunda M. Ggogoi, S. Suresh Babu, R. Imasu and M. Hashimoto	Space Physics Laboratory, Vikram Sarabhai Space Centre, Thiruvananthapuram; Atmosphere and Ocean Research Institute, The University of Tokyo, Japan; Earth Observation Research Center, Japan Aerospace Exploration Agency, Japan
15:10 - 15:20	Lightening Talks	PS1-P-75, 79, 80, 81, 82		
15:20 - 15:30		PS1-P-84, 85, 86, 89, 91		

PS-01 [SESSION - 3, ORAL PRESENTATIONS]

27 Feb 2024 | Tuesday | 12:00 - 13:00 hrs

Venue: **Biotechnology Auditorium (Block E)**

Theme: **RADAR meteorology : Precipitation and Hydrological Cycle**

Chair: **Dr. Kaustav Chakravarty, IITM**

Time	Abstract ID	Topic (Oral Presentations)	Author	Affiliation
12:00 - 12:10	PS1-O-41	Design, Development and Validation of 445 MHz wind profiling radar at NARL	P Yasodha, T Narayana Rao, A K Patra	National Atmospheric Research Laboratory, Gadanki
12:10 - 12:20	PS1-O-42	Unveiling the Dependency of Vegetation Optical Depth at Different Microwave Frequencies over Indian region	S.Anoop, Rabindra K. Nayak, M.V. Ramana	National Remote Sensing Centre, Hyderabad
12:20 - 12:30	PS1-O-43	EOS-06 Scatterometer Data Products: Contributions into the Global Synoptic Weather Observations	Puja Kakkar, Devang Mankad, Abhisek Chakraborty, Qamer Saquib, Mayur Dahyabhai Chopda, Krishna Murari Agrawal, V Manavala Ramanujam	Space Applications Centre, Ahmedabad
12:30 - 12:40	PS1-O-03	Optimal Locations for Satellite Observations for Forecast Error Reduction Estimated Using Ensemble Sensitivity Analysis	Govindan Kutty and Babitha George	Indian Institute of Space Science and Technology, Thiruvananthapuram
12:40 - 12:50	Lightening Talks	PS1-P-96, 97, 192, 109, 111		
12:50 - 13:00		PS1-P-114, 121, 123, 124, 127		

PS-01 [SESSION - 4, ORAL PRESENTATIONS]

27 Feb 2024 | Tuesday | 14:00 - 15:30 hrs

Venue: **Biotechnology Auditorium (Block E)**

Theme: Understanding Clouds from Space-borne Observations

Chair: Dr. D. Bala Subrahmanyam, SPL

Time	Abstract ID	Topic (Oral Presentations)	Author	Affiliation
14:00 - 14:10	PS1-O-15	Impact of Hadley Circulation Expansion on the Distribution of Marine Stratocumulus Clouds over its Descending Limbs	U Anjana, K Kishore Kumar	Space Physics Laboratory, VSSC, Trivandrum
14:10 - 14:20	PS1-O-16	Statistical downscaling of GRACE total water storage changes over India	Maya Raghunath Suryawanshi, Amin Shakya, Sharad Chander, Bhaskar R. Nikam, Nagesh Kumar Dasika, and Bramha Dutt Vishwakarma	Indian Institute of Science, Bangalore; University of Twente, the Netherlands; Space Applications Centre, Ahmedabad; Indian Institute of Remote Sensing, Dehradun
14:20 - 14:30	PS1-O-17	Total Column Water Vapor from INSAT-3D: Assessments with Ground-Based GNSS receivers and GMI Datasets at Different Temporal Scales	Basivi Radhakrishna, Thota Narayana Rao, and Gubbala Sai Venkata Chandrakanth	National Atmospheric Research Laboratory, Gadanki
14:30 - 14:40	PS1-O-18	Identification of essential climate variables as precursors of extreme rainfall event over uttarakhand from high-resolution & multi-temporal geostationary satellite data	Ahana Mukhopadhyay, Charu Singh	Indian Institute Of Remote Sensing, ISRO, Dehradun
14:40 - 14:50	PS1-O-19	Testbeds for Rainfall Microphysics: Unravelling the features of thunderstorm rainfall for 10 contrasting regions of India	Kaustav Chakravarty, Rohit Patil, Gargi Rakshit and G.Pandithurai	IITM Pune; IMD, New Delhi
14:50 - 15:00	PS1-O-20	Impact of land surface changes and urbanization on simulation of extreme rainfall events over the southeast coast of India	V. Yesubabu, J. R. Rajeswari, C. V. Srinivas, B. Venkatraman	National Atmospheric Research Laboratory, Gadanki; Indira Gandhi Centre for Atomic Research, Kalpakkam, Tamilnadu
15:00 - 15:10	PS1-O-21	An Investigation of an exceptionally heavy rainfall event over Indore, India from 15th-17th September 2023	Nitig Singh, Vaibhav Tyagi, Lekhraj Saini, Saurabh Das, Sachin M. Deshpande and U.V. Murali Krishna	Indian Institute of Technology Indore; Madhya Pradesh Indian Institute of Tropical Meteorology, ART-Bhopal
15:10 - 15:20	Lightening Talks	PS1-P-128, 129, 131, 133, 137		
15:20 - 15:30		PS1-P-141, 147, 156, 160, 162		

PS-01 [SESSION - 5, ORAL PRESENTATIONS]

28 Feb 2024 | Wednesday | 12:00 - 13:00 hrs

Venue: **Biotechnology Auditorium (Block E)**

Theme: **Stratosphere Troposphere exchange & TTL dynamics**

Chair: **Dr. M. Venkat Ratnam, NARL**

Co-Chair: **Dr. Prijith S. S., SPL**

Time	Abstract ID	Topic (Oral Presentations)	Author	Affiliation
12:00 - 12:10	PS1-O-51	Direct Observations of the Global Distribution, Sources and Properties of Tropical Clouds Occurring Above the Tropopause	Aswathy R S and K Rajeev	Space Physics Laboratory, Vikram Sarabhai Space Centre, Trivandrum; Department of Physics, University of Kerala
12:10 - 12:20	PS1-O-52	Role of deep convection on the spatial asymmetry of the UTLS aerosols in the Asian summer monsoon anticyclone region	A Hemanth Kumar, M. Venkat Ratnam, Venkat Subrahmanyam K, Prasad P	National Atmospheric Research Laboratory, Gadanki; Centre for Atmospheric Sciences and Climate Studies, SRMIST, Chennai; National Remote Sensing Centre (NRSC), Hyderabad; Indian Institute of Tropical Meteorology, Pune.
12:20 - 12:30	PS1-O-53	Characteristics of Stratospheric Aerosols during the Volcanic Eruptions using the SAGE III/ISS Observations	B. L. Madhavan and M. Venkat Ratnam	National Atmospheric Research Laboratory, Gadanki
12:30 - 12:40	PS1-O-55	Transport processes associated with the Asian Summer Monsoon Anticyclone: Relative Role of Convection and Advection	P. P. Musaid, Sanjay Kumar Mehta, Susann Tegtmeier, Masatomo Fujiwara, Someshwar Das	SRM Institute of Science and Technology, Kattankulathur; Institute of Space and Atmospheric Studies, University of Saskatchewan, Saskatoon, SK, Canada; Faculty of Environmental Earth Science, Hokkaido University, Sapporo, Japan; South Asian Meteorological Association (SAMA), New Delhi, India
12:40 - 12:50	Lightening Talks	PS1-P-167, 168, 169, 170, 171		
12:50 - 13:00		PS1-P-172, 174, 178, 01, 02		

PS-01 [SESSION - 6, ORAL PRESENTATIONS]

28 Feb 2024 | Wednesday | 14:00 -15:30 hrs

Venue: **Biotechnology Auditorium (Block E)**

Theme: **Aerosols & Climate : Observations & Modelling**

Chair: **Dr. V. Ravi Kiran, NARL**

Time	Abstract ID	Topic (Oral Presentations)	Author	Affiliation
14:00 - 14:10	PS1-O-28	Light-absorption enhancement of black carbon aerosols due to alterations to the mixing state in the South Asian outflow	Sobhan Kumar Kompalli, Nithin Babu, Mukunda M Gogoi, Vijayakumar S Nair, S. Suresh Babu	Space Physics Laboratory, Vikram Sarabhai Space Centre, Thiruvananthapuram, India
14:10 - 14:20	PS1-O-30	Spatial distribution of aerosols over the Tropical Indian Ocean: A study from IInd International Indian Ocean Expedition-II (IIOE-II)	Atiba A. Shaikh and Harilal B. Menon	Remote Sensing Laboratory, School of Earth, Ocean and Atmospheric Sciences, Goa University.
14:20 - 14:30	PS1-O-31	Investigation on Aerosol-Cloud Interaction In Water Clouds Using Ground-Based, In-Situ, And Satellite-Based Observations	Renju Nandan and M Venkat Ratnam	National Atmospheric Research Laboratory
14:30 - 14:40	PS1-O-32	Balloon-borne aerosol–cloud interaction studies (BACIS): field campaigns to understand and quantify aerosol effects on clouds	V. Ravi Kiran and M. Venkat Ratnam	National Atmospheric Research Laboratory (NARL)
14:40 - 14:50	PS1-O-33	Vertical Distribution of Black Carbon and its interaction with the Atmospheric Boundary Layer along the Brahmaputra Valley of Assam	Arup Borgohain, Manasi Gogoi, Arundhati Kundu, Shyam S. Kundu, Arban S Youroi, Rohit Gouta, Pradip K. Bhuyan, Binita Pathak, Kalyan Bhuyan, Abhishek Charri, Aniket Chakravorty, S P Aggarwal	North Eastern Space Applications Centre, Umiam, Meghalaya; Centre for Atmospheric Studies, Dibrugarh University, Dibrugarh; Department of Physics, Cotton University, Guwahati; Department of Physics, Gauhati University, Assam; Space Applications Centre, Jodhpur Tekra, Ambawadi Vistar
14:50 - 15:00	Lightening Talks	PS1-P- 05, 06, 07, 08, 10		
15:00 - 15:10		PS1-P-14, 19, 20, 23, 29		
15:10 - 15:20		PS1-P-30, 32, 33, 34, 37		
15:20 - 15:30		PS1-P-38, 41, 43, 45, 47		

PS-01 [SESSION - 7, ORAL PRESENTATIONS]

29 Feb 2024 | Thursday | 12:00 -13:00 hrs

Venue: **Biotechnology Auditorium (Block E)**

Theme: Trace gases (including Greenhouse gases) and Climate : Observations & Modelling

Chair: Dr. Mukunda M. Gogoi, SPL

Co-Chair: Dr. B. L. Madhavan, NARL

Time	Abstract ID	Topic (Oral Presentations)	Author	Affiliation
12:00 - 12:10	PS1-O-36	Understanding of emission and atmospheric processes of reactive trace gases over the Indian subcontinent and surrounding oceanic regions: A synthesis of comprehensive field measurements	L. K. Sahu, Mansi Gupta, Nidhi Tripathi, Ravi Yadav, T.G. Malik	Physical Research Laboratory (PRL), Ahmedabad; Indian Institute of Technology Gandhinagar, Gujarat, India; Max Planck Institute for Chemistry, Germany; Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, China
12:10 - 12:20	PS1-O-37	Atmospheric processes governing the surface ozone variability over East Antarctica during austral summer	Imran A. Girach, N. Ojha, P.R. Nair, K.V. Subrahmanyam, N. Koushik, M.M. Nazeer, N.V.P. Kiran Kumar, S.S. Babu, J. Lelieveld, and A. Pozzer	Space Applications Centre, Ahmedabad; Space Physics Laboratory, VSSC, Thiruvananthapuram; Physical Research Laboratory, Ahmedabad; TC 95/1185, Aiswarya Gardens, Kumarapuram, Thiruvananthapuram, India; National Remote Sensing Centre, Hyderabad; Department of Atmospheric Chemistry, Max Planck Institute for Chemistry, Mainz, Germany; Climate and Atmosphere Research Center, The Cyprus Institute, Nicosia, Cyprus
12:20 - 12:30	PS1-O-38	Photo-degradation of Plastics Present in the Environment can be a Significant Source of CO ₂ and CH ₄ : A Pilot Laboratory Study	Chandrima Shaw, Siddhartha Sarkar, Sanjeev Kumar, and Neeraj Rastogi	Geosciences Division, Physical Research Laboratory, Ahmedabad, India
12:30 - 12:40	PS1-O-40	Impact of natural and anthropogenic processes on atmospheric composition over South Asia: Regional modeling perspective	N. Ojha, S. Harithasree, M. Soni, I. Girach, N. Singh, L. K. Sahu	Physical Research Laboratory, Ahmedabad; Indian Institute of Technology, Gandhinagar, Gujarat; Space Applications Centre, Indian Space Research Organisation, Ahmedabad; Aryabhata Research Institute of Observational Sciences, Nainital
12:40 - 12:50	Lightening Talks	PS1-P-51, 54, 55		

PS-01 [SESSION - 8, ORAL PRESENTATIONS]

29 Feb 2024 | Thursday | 14:00 -15:30 hrs

Venue: **Biotechnology Auditorium (Block E)**

Theme: Space based Meteorology & Monsoon

Chair: Prof. S. Vijaya Bhaskara Rao, S.V. University

Co-Chair: Dr. Som Sharma, PRL

Time	Abstract ID	Topic (Oral Presentations)	Author	Affiliation
14:00 - 14:10	PS1-O-01	To investigate the relationship between extreme soil moisture and extreme precipitation events over India using Event Coincidence Analysis method.	Vibin Jose, Anantharaman Chandrasekar	Indian Institute of Space Science and Technology
14:10 - 14:20	PS1-O-02	Unveiling Diurnal Metamorphosis in the Atmospheric Boundary Layer during an Annular Solar Eclipse through Large Eddy Simulations	D. Bala Subrahmanyam	Space Physics Laboratory, Vikram Sarabhai Space Centre, Thiruvanthapuram
14:20 - 14:30	PS1-O-22	Investigations of Atmospheric Clouds and Boundary Layer over India using Ground-based Lidars	Som Sharma, Dharmendra Kamat, P. Kumar, Aniket and S. Saha	Physical Research Laboratory, Ahmedabad, India; Space Applications Centre, Ahmedabad, India; Scripps Institutions of Oceanography, California, USA
14:30 - 14:40	PS1-O-05	Bias correction of CMIP6 GCMs' Simulations of Surface Air Temperature and Precipitation over monsoon core region of India using Deep Learning Algorithms	A. Sabarinath, T. Kesavavarthini, Meera M. Nair, A. Naga Rajesh	SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu; Centre for Atmospheric Sciences and Climate Studies (TROPIC), SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu.
14:40 - 14:50	PS1-O-06	Single or double monsoon onset in 2023? - An investigation using OSCAT3	Vaibhav Tyagi, Saurabh Das, Bipasha Paul Shukla and Sukanta Kumar Das	Department of Astronomy, Astrophysics and Space Engineering, Indian Institute of Technology Indore; Space Applications Centre (SAC), ISRO
14:50 - 15:00	PS1-O-07	Future projections of interannual variability of monsoon circulation over South Asia using CESM2 large ensemble simulations	Nithya K , Aneesh S , S Sijikumar	Space Physics Laboratory, Vikram Sarabhai Space Centre, India; Centre for Climate Physics, Institute for Basic Science, Busan, South Korea
15:00 - 15:10	PS1-O-08	Quantitative Assessment of Lightning Detection Precision: A Comparative Analysis of Space-Borne (LIS) and Ground-Based (LDS) Sensors in India	Alok Taori, Venkatesh Degala, Mallikarjun and Arun Suryavanshi	National Remote Sensing Center, ISRO, Hyderabad.

PS-01 [SESSION - 9, ORAL PRESENTATIONS]

01 Mar 2024 | Friday | 12:00 -13:00 hrs

Venue: **Biotechnology Auditorium (Block E)**

Theme: **Space-based Oceanography**

Chair: **Dr. Mehul R. Pandya, SAC**

Co-Chair: **Dr. M. Shravan Kumar, IMD HQ**

Time	Abstract ID	Topic (Oral Presentations)	Author	Affiliation
12:00 - 12:10	PS1-O-09	Understanding the coupled bio-physical interaction in the Bay of Bengal using OCM-3 and OSCAT datasets onboard Oceansat-3	Ritabrata Mukhopadhyay, Manisha Vithalpura, Smitha Ratheesh	Indus University; SAC-ISRO
12:10 - 12:20	PS1-O-10	Assessment of Satellite derived Global Surface Ocean Total Alkalinity (TA) fields	Gowtham Krishna, Usman N, Anju Kumari, Ibrahim Shaik, P.V. Nagamani, Padma Kumari	National Remote Sensing Centre (NRSC), Hyderabad
12:20 - 12:30	PS1-O-11	Marine Heat Waves in the Southern Ocean and their role in modulating sea ice and air-sea interaction	Alvarinho J. Luis and K. Gurumoorthi	National Centre for Polar and Ocean Research, MoES, Headland Sada, Goa-403 804,
12:30 - 12:40	PS1-O-14	Role of Atmospheric Heat-Flux in Modulating the Northern Arabian Sea Spring Bloom	Adith V.B, V.P. Akhil, Gautham. S, V. Sanil Kumar	CSIR-NIO, Dona Paula, Goa; SEOAS, Goa University, Taleigao-Plateau, Goa, India