21st NATIONAL SPACE SCIENCE SYMPOSIUM
31 JANUARY - 4 FEBRUARY 2022
IISER KOLKATA

PROGRAM SCHEDULE

NSSS 2022

DAY 1 : MONDAY, 31 JANUARY, 2022

OPENING CEREMONY (10:30 - 11:30)

Session moderator	Dibyendu Nandi (Chairperson, Local Organizing Committee, IISER Kolkata)

Time (IST)	Title	Speaker (Affiliation)
10:30 – 10:35	Welcome address	Sourav Pal (Director, IISER Kolkata)
10:35 – 10:40	Introduction to NSSS 2022	AS Kiran Kumar (Chairman, National Organizing Committee)
10:40 – 10:45	Welcome remarks	R. Umamaheswaran (Scientific Secretary, ISRO)
10:45 - 11:00	**Inaugural address and formal opening of Symposium**	**S. Somanath (Chairman, ISRO and Secretary, Department of Space)**
11:00 - 11:20	Interaction with Chairman, ISRO	Moderator: Tirtha Pratim Das, (Director, SPO, ISRO HQ)

Playing of the National Anthem of India

END OF OPENING CEREMONY

POPULAR SCIENCE LECTURE (11:30 - 12:30)

Session chair	Shri Shantanu Bhatawdekar (Director, EDPO, ISRO)

Time (IST)	Title	Speaker (Affiliation)
11:30 - 12:30	Climate Change: An Indian Perspective	Madhavan Rajeevan (Distinguished Scientist and Ex-Secretary, Ministry of Earth Sciences, Government of India)

SYMPOSIUM LOGISTICS (12:30 - 13:00)

Time (IST)	Title	Speaker (Affiliation)
12:30 - 13:00	Online Accessibility and Introduction to Management Team	LOC Team

Lunch Break (13:00 - 14:00)

PARALLEL PLENARY SESSIONS (14:00 - 18:30)
PS 1, PS 2, PS 3, PS 4, PS 5
PLENARY SPECIFIC SCHEDULE FOLLOWS LATER

DAY 2 : TUESDAY, 1 FEBRUARY, 2022

INTERDISCIPLINARY SESSION 1 : HIGHLIGHTS FROM ISRO SPACE SCIENCE MISSIONS

Session chair	S. Seetha (RRI)

Time (IST)	Title	Speaker (Affiliation)
10:00 – 10:45	Science Accomplishments from the Astrosat Mission	Dipankar Bhattacharya (IUCAA)
10:45 – 11:30	Science from the Chandrayaan-2 and Mars Orbiter Missions	Anil Bhardwaj (PRL)

INTERDISCIPLINARY SESSION 3 : REMOTE SENSING AND METEOROLOGY FROM SPACE

Session chair	Tarun Pant (SPL-VSSC), D. Jagadheesha (ISRO HQ)

Time (IST)	Title	Speaker (Affiliation)
11:30 – 12:15	Equatorial Ionospheric Research Relevant to Navigation and Communication Applications - Current Status and Way Forward	Amit Patra (NARL)
12:15 - 13:00	Hydrated Moon: New Findings through Remote Sensing	Prakash Chauhan (IIRS Dehradun)

Lunch Break (13:00 - 14:00)

PARALLEL PLENARY SESSIONS (14:00 - 18:30)
PS 1, PS 2, PS 3, PS 4, PS 5
PLENARY SPECIFIC SCHEDULE FOLLOWS LATER

DAY 3 : WEDNESDAY, 2 FEBRUARY, 2022

INTERDISCIPLINARY SESSION 3 : REMOTE SENSING AND METEOROLOGY FROM SPACE (CONTINUED)

Session chair	Tarun Pant (SPL-VSSC), D. Jagadheesha (ISRO HQ)

Time (IST)	Title	Speaker (Affiliation)
10:00 – 10:45	Remote Sensing for Ecology, Conservation and Human Sustainability	Harini Nagendra (Azim Premji University)

INTERDISCIPLINARY SESSION 4 : INTERDISCIPLINARY SCIENCES

Session chair	Dipankar Banerjee (ARIES), Ajit Kembhavi (IUCAA)

Time (IST)	Title	Speaker (Affiliation)
10:45 - 11:30	Modeling Climate Change	Krishna Achutarao (IIT Delhi)
11:30 - 12:15	Space Weather: Predicting our Space Environment	Dibyendu Nandi (IISER

		Kolkata)
12:15 - 13:00	Exploring New Worlds beyond the Solar System	T. Sivarani (IIA)
Lunch Break (13:00 - 14:00)		
PARALLEL PLENARY SESSIONS (14:00 - 18:30) PS 1, PS 2, PS 3, PS 4, PS 5 PLENARY SPECIFIC SCHEDULE FOLLOWS LATER		

DAY 4 : THURSDAY, 3 FEBRUARY, 2022

INTERDISCIPLINARY SESSION 2 : VISION FOR FUTURE SPACE SCIENCE MISSIONS

Session chair	G. C. Anupama (IIA)

Time (IST)	Title	Speaker (Affiliation)
10:00 - 10:45	Astronomy from Space	Annapurni Subramanian (IIA)
10:45 - 11:30	Heliophysics Exploration Program	Sankarasubramanian (ISRO)
11:30 - 12:00	Panel Discussion on Future Vision	G. C. Anupama (IIA)
12:00 - 13:00	Poster Highlights by Plenary Session Chairs; PS 1, PS 2, PS 3, PS 4 and PS 5.	
Lunch Break (13:00 - 14:00)		
PARALLEL PLENARY SESSIONS (14:00 - 18:30) PS 1, PS 2, PS 3, PS 4, PS 5 PLENARY SPECIFIC SCHEDULE FOLLOWS LATER		

DAY 5 : FRIDAY, 4 FEBRUARY, 2022

PUBLIC OUTREACH EVENTS AND INTERACTION WITH SCIENCE COMMUNICATORS (10:00 - 12:00)

Session chair	Niruj Mohan Ramanujam (Co-Chair, Outreach Committee, IIA)

Time (IST)	Title	Speaker
10:00 - 10:15	Overview of symposium associated public engagement events	S. Seetha (Chairperson, Outreach Committee, RRI)
10:15 - 10:45	Prize distribution ceremony for Quiz, Poster and Outreach Video competitions	Guests of Honour: Competition Judges
10:45 - 11:30	Showcase of winning science communication entries	
11:30 - 12:00	Interaction with students, public and science communicators	

CLOSING CEREMONY (12:00 - 12:30)

Moderator	V. Girish (Deputy Director, SPO, ISRO HQ)

Time (IST)	Title	Speaker (Affiliation)
12:00 - 12:10	Symposium report, announcement of best presentation awardees, future events	Dibyendu Nandi (Chairperson, Local Organizing Committee, IISER Kolkata)
12:10 - 12:15	Closing remarks	A S Kiran Kumar (Chairman, National Organizing Committee)
12:15 - 12:20	Open mike and remarks, if any, by attendees	
12:20 - 12:30	Vote of Thanks	V. Girish (Deputy Director, SPO, ISRO HQ)

Playing of the National Anthem of India

END OF CLOSING CEREMONY

PLENARY SPECIFIC SCHEDULES

Color Codes: Invited Talk | Contributed Oral Talk | Contributed Poster Flash Talk

PLENARY SESSION 1 : SPACE BASED METEOROLOGY, OCEANOGRAPHY, GEOSPHERE-BIOSPHERE INTERACTIONS			
Convenor	M. Venkat Ratnam (NARL)		
Co - convenor	D. Jagadheesha (ISRO), Sunil Kumar S V (VSSC), Kiran Kumar N V P (VSSC ISRO)		
PS1 | DAY 1 : MONDAY, 31 JANUARY, 2022; SESSION A			
Session chair	M. Venkat Ratnam (NARL)		
Session co-chair(s)	Mukunda M Gogoi (SPL)		
Serial No.	Time (IST)	Title	Speaker (Affiliation)
1	14:00-14:40	Aerosol Radiative Forcing over India from space and ground based observations	Suresh Babu, (ISRO)
2	14:40-15:00	Studies on Brown Carbon Aerosols in India: Current Status and Way Forward	Neeraj Rastogi, (PRL)
3	15:00-15:10	Climatological aspects of size-resolved column aerosol optical properties over Gadanki, India	Bomidi Lakshmi Madhavan, (NARL)
4	15:10-15:20	Studies on Black Carbon aerosols in relation to Boundary Layer Height and Rainfall over sub urban Ch	M. Ashok Williams, (Atmospheric Science Research Laboratory, SRM IST)
5	15:20-15:30	Effect of aerosols and meteorology on precipitation enhancement over Kerala during August 2018	Jasmine Mary Kuriakose, (Assumption College)
6	15:30-15:40	Carbonaceous Aerosol Variability & their Association with Meteorological Parameters in Delhi, India	Saurabh Sonwani, (University of Delhi)
7	15:40-15:50	Estimation of ACRI over a tropical atmosphere using a synergy of in-situ measurements	Renju Nandan, (NARL)
8	15:50-16:00	Space based meteorology, oceanography, geosphere-biosphere interaction	D Mriganka, (IIT KGP)
Break (16:00 - 16:30)			

PS1 | DAY 1 : MONDAY, 31 JANUARY, 2022; SESSION B			
Session chair	**M. Venkat Ratnam (NARL)**		
Session co-chair(s)	**T V Lakshmi Kumar (SRM-IST)**		
9	16:30-16:50	BACIS: New observational techniques to understand aerosol effects on Clouds	Varaha Ravi Kiran, (NARL)
10	16:50-17:00	Role of aerosol microphysical properties on CCN activity over a tropical coastal location	Ajith TC, (SPL)
11	17:00-17:10	Sensitivity of cloud condensation nuclei concentration to aerosol loading in column model	Kavita Patnaik, (NARL)
12	17:10-17:20	Integrated Monsoon Rainfall Observation Programme: Defining Monsoon Rainfall Measuring Satellite (MRMS)	T V Lakshmi Kumar, (SRM IS&T)
13	17:20-17:30	Variability in atmospheric DMS over the Bay of Bengal during the post-monsoon season	Mansi Gupta, (PRL)
14	17:30-17:40	Long-term trends in the Aerosol Optical Depth obtained using Multi-satellite measurements	Gopika Gupta, (NARL)
15	17:40-17:50	Retrieval of near-surface PM2.5 over India using satellite lidar observations	Lakshmi N B, (NCESS)
16	17:50-18:00	Variability and comparison of aerosol and PWV from the measurement of satellite over Darjeeling	Shyam Mehta, (Bose Institute)
17	18:00-18:10	What drives the prevalence of atmospheric water-soluble organic aerosols over the tropical hill station in the Western Ghats?	D.K. Deshmukh, (SPL)
18	18:10-18:20	Probing the genesis of extreme BC episodes over a polluted metropolis near land-sea boundary	Gargi Rakshit, (Institute of Radio Physics and Electronics)
19	18:20-18:30	Variation of trace gases in Kannur Town, a coastal South Indian city	Nishanth T, (Sree Krishna College Guruvayur)

PS1 | DAY 2 : TUESDAY, 1 FEBRUARY, 2022; SESSION A			
Session chair	**Sunil Kumar S V (VSSC)**		
Session co-chair(s)	**B. L. Madhavan (NARL)**		
1	14:00-14:40	Exploring the Oceans from Ground and Space	Sunil Kumar Singh, (CSIR-National Institute of Oceanography)
2	14:40-15:00	Photochemical evolution of air in tropical urban environments of India: A model-based study	Narendra Ojha, (PRL)
3	15:00-15:10	Demonstrating the capability of machine learning to simulate atmospheric trace gases	Imran A. Girach, (SPL)
4	15:10-15:20	Spatio-temporal variation and gas-particle partitioning of PAHs and Nitro-PAHs in the atmosphere of	Puneet Kumar Verma, (Dayalbagh Educational Institute)
5	15:20-15:30	Total column ozone from Indian geostationary satellite INSAT-3DR: Improved infrared retrieval and validation	Prajjwal Rawat, (ARIES)
6	15:30-15:40	Bayesian inverse modeling of CH4 fluxes over the peninsular India	Anjumol Raju, (SPL)
7	15:40-15:50	Emissions of biogenic VOC from Achanakmar-Amarkantak Biosphere Reserve (AABR)Forest in Central India	Tanzil Gaffar Malik, (Space and Atmospheric Sciences Division, PRL)
8	15:50-16:00	C02 variability over a coastal urban station	Sandhya K Nair, (SPL)
Break (16:00 - 16:30)			

PS1 | DAY 2 : TUESDAY, 1 FEBRUARY, 2022; SESSION B			
Session chair	**Sunil Kumar S V (VSSC)**		
Session co-chair(s)	**Ghouse Basha (NARL)**		
9	16:30-16:50	Local emission and long-range transport impacts on the CO, CO2, and CH4 concentrations	Chaithanya D. Jain, (NARL)
10	16:50-17:00	Is the ABL altitude or strong thermal inversions that control the vertical extent of aerosols?	P. Prasad, (NARL)
11	17:00-17:10	Do the large-eddy simulations yield deeper atmospheric boundary layers in comparison to the RANS?	Roshny S. , (SPL)
12	17:10-17:20	Impact of COVID-19 lockdown on Surface, ABL, and Instability parameters over India	Ghouse Basha, (NARL)
13	17:20-17:30	Anomalous radiative warming by clouds over a sub-region within the Indian summer monsoon region	V. Sathiyamoorthy, (ISRO)
14	17:30-17:40	An approach for tropospheric humidity retrieval from radio occultation refractivity profiles	D. Jagadheesha, (ISRO)
15	17:40-17:50	Retrieval of atmospheric profiles from microwave radiometer using AI	Renju R, (ISRO)
16	17:50-18:00	Impact of Satellite Based Geographical Data on Simulation of Rainfall over North Eastern Region of I	Rekha Bharali Gogoi, (North Eastern Space Applications Centre)
17	18:00-18:10	Spatio-temporal signature of anomalous positive and negative IOD events using remote sensing data	Amit Kumar Jena, (IIRS)
18	18:10-18:20	Comparative Analysis of Binary Classifiers for Rainfall Prediction in Mumbai region	Kaustav Chakravarty, (IMD, Pune)
19	18:20-18:30	Rapidly intensified, Long duration North Indian Ocean Tropical Cyclones: validation and dynamics	Arpita Munsi, (NARL)

PS1 | DAY 3 : WEDNESDAY, 2 FEBRUARY, 2022; SESSION A			
Session chair	Kiran Kumar N V P (VSSC ISRO)		
Session co-chair(s)	K. V. Subrahmanyam (SPL)		
1	14:00-14:40	Assessment of mangroves from space	Gnanappazham L, (IIST)
2	14:40-15:00	Indian summer Monsoon: A combat between deep convection and the upper tropospheric humidity inferred	K. N. Uma, (SPL)
3	15:00-15:10	Simulation of impact of surface infrared heating on growth of the cloud	Subhrajit Rath, (NARL)
4	15:10-15:20	Improving InSAR based DEMs using Successive Best Pixel Selection approach for DEM fusion	Priti Girohi, (IIRS)
5	15:20-15:30	Numerical Study on the Impact of Cyclonic Storm Ockhi on Sea-breeze Circulation over the Arabian Sea	Freddy P Paul, (ISRO)
6	15:30-15:40	Mumbai monsoon – unravelling the morphology of clouds and microphysics of precipitation	Kaustav Chakravarty, (Indian Institute of Tropical Meteorology, Pune)
7	15:40-15:50	The role of bright band characteristics of stratiform rain on the altitudinal variation of raindrop	Lavanya S, (SPL)
8	15:50-16:00	Multicomponent multiphase model for stratification and compressibility of Earth's Atmosphere	Debojit Sarkar, (NARL)
Break (16:00 - 16:30)			
PS1 | DAY 3 : WEDNESDAY, 2 FEBRUARY, 2022; SESSION B			
Session chair	Kiran Kumar N V P (VSSC ISRO)		
Session co-chair(s)	Imran A. Girach (SPL)		
9	16:30-16:50	Regional Distribution of Black Carbon Aerosols over India from Satellite (GOSAT-2 CAI-2) and Ground	Mukunda M Gogoi, (SPL)
10	16:50-17:00	Prediction of Atmospheric Water Vapour from Indian Navigation Data Using Deep Learning Techniques	Chandrani Chatterjee, (IIT Indore)
11	17:00-17:10	New insights into the asymmetries in the precipitation days during the Indian summer monsoon and the	Kandula V Subrahmanyam, (SPL ISRO)
12	17:10-17:20	Role of circulation dynamics on cloud distribution over the Indian summer monsoon region	Prijith S. S., (SPL ISRO)
13	17:20-17:30	Estimation and validation study of Soil Moisture using GPS-IR technique over a tropical region: Vari	G. N. Madhavi, (NARL)

14	17:30-17:40	From Humidity to Precipitation: Observed Relations among the Hydrological Cycle Components	Edwin V Davis, (SPL ISRO)
15	17:40-17:50	Impact of Tropical Clouds on Atmospheric Heating: Estimations from Spaceborne Radar Observations	Aswathy R S, (University of Kerala)
16	17:50-18:00	Association of deep convective cloud cores with sea surface temperature over the tropical oceans	Sisma Samuel, (SPL ISRO)
17	18:00-18:10	Use of 53MHz Radar of Calcutta University to quantify the Lower Atmospheric Wind Characteristics	Debyendu Jana, (University of Calcutta)
18	18:10-18:20	Comparison of prediction models for time series forecasting over a tropical region	Arijit De, (DEMR, ONERA/ CNES)
19	18:20-18:30	Verification of mesoscale model prediction of Tropical Cyclones occurred over North Indian Ocean	Goriparthi Pavani, (NARL)

PS1 | DAY 4 : THURSDAY, 3 FEBRUARY, 2022; SESSION A			
Session chair	**D. Jagadheesha (ISRO)**		
Session co-chair(s)	**Siji Kumar (SPL)**		
1	14:00-14:20	Long term variability in lightning occurrences over the Congo Basin Africa	Rohit Chakraborty, (IISc)
2	14:20-14:30	Spatio-temporal survey of mined land in North East India	D. Sai Sowjanya, (NESAC)
3	14:30-14:40	Google Earth Engine based approach for flood mapping of inland area using remote sensing data	Supriya Sharma, (IIRS)
4	14:40-14:50	Isolation, identification and characterization of thermophiles and halophiles from Ladakh.	Sahaj Bharindwal, (Amity centre of excellence in astrobiology at Amity University)
5	14:50-15:00	Planetary albedo decline interlinked with land cover modifications and near surface warming	S.V.S. Sai Krishna, (NRSC)
6	15:00-15:10	Understanding the vertical structure of clouds observed over a high altitude station of North East I	Arundhati Kundu, (NESAC)

7	15:10-15:20	Supervised Classification Approach for Differentiating Alpine Landcover Features of Sikkim Himalayas	Jumoni Boruah, (NESAC)
8	15:20-15:30	Effect of AOD to lightning Flash Rate and relation with NO2 over Kolkata, India	Arijit De, (DEMR, ONERA/ CNES)
Break (15:30 - 16:00)			
PS1 | DAY 4 : THURSDAY, 3 FEBRUARY, 2022; SESSION B			
Session chair	**D. Jagadheesha (ISRO)**		
Session co-chair(s)	**S. S. Prijith (SPL)**		
9	16:00-16:03	Variation of Nitrogen Dioxide (NO2) over metropolitan areas of India	Vaibhav Trivedi, (St. Xavier's College, Ahmedabad)
10	16:03-16:06	Radiocarbon-based source characteristics of paddy-residue burning derived aerosols	M Devaprasad, (PRL)
11	16:06-16:09	Real-time measurements of NR- PM2.5 during Covid19 lockdown in Ahmedabad	Rohit Meena, (PRL)
12	16:09-16:12	Impact of Climate Change on Meteorological Parameters over Mountainous Region	Saurabh Verma, (IIRS)
13	16:12-16:15	Assessment of surface ozone at Dehradun: a valley site in Himalayan and its comparison with other ce	Mahendar Rajwar, (ARIES)
14	16:15-16:18	Observed climatology and trend in relative humidity, CAPE, and CIN over India	Imran Khan, (Department of Electronics and Communications Engineering)
15	16:18-16:21	An analysis of the Tropical Cyclones and Atlantic Hurricanes during 1979 to 2018 with the variation	Dhruba Banerjee, (Swami Vivekananda Institute of Science and Technology)
16	16:21-16:24	Sodar observations of wintertime sea breeze characteristics over Visakhapatnam	K. Jagadesh, (Sri Vasavi Engineering College, Tadepalligudem, Andhra Pradesh)
17	16:24-16:27	Integral turbulence statistics over Anantapur, a semi-arid location in peninsular India	Nagireddy Siva Kumar Reddy, (SPL)
18	16:27-16:30	Evaluation of similarity theory in wintertime surface layer over a coastal station Thumba	Nagireddy Siva Kumar Reddy, (SPL)

19	16:30-16:33	Thermodynamic structure of the Coastal Atmospheric Boundary Layer (CABL) during different sky condit	Sachin K Philip, (SRMIST)
20	16:33-16:36	GNSS-Reflectometry using NavIC-L5 signals for Earth Observation	Bushra Ansari, (IIT Delhi)
21	16:36-16:39	Application of GNSS water vapour for severe weather studies in Uttarakhand Himalaya	Tanmay Dhar, (Uttaranchal University)
22	16:39-16:42	Long-term investigations of AOD Observed from MERRA-2 reanalysis data Over Andhra Pradesh state in I	Pelati Althaf, (KLEF)
23	16:42-16:45	Analysis of Multi-Layer Atmospheric Clouds over Ahmedabad	Harithasree Sreedevan, (PRL)
24	16:45-16:48	Simulation of specific cyclone cases in the Bay of Bengal through Regional Ocean Modeling System (RO	Tarumay Ghoshal, (DIT University)
25	16:48-16:51	ANN modeling for the dependency of seasonal long range rainfall with climate parameters	Raj Kishore Tiwari, (Govt. Madhav Sadashivrao Golvalkar college Rewa)
26	16:51-16:54	Verification of mesoscale model prediction of Tropical Cyclones occurred over North Indian Ocean	Nizy Mathew, (SPL)
27	16:54-16:57	Role of tropical cyclone in the redistribution of aerosols over Indian subcontinent	Betsy K B, (SRMIST)
28	16:57-17:00	The inter-seasonal variation of rainfall microphysics as observed over the urban city of Pune	Aalisha Lanjewar, (VIIT Pune)
29	17:00-17:03	The characteristic features of rainfall microphysics as observed over the orographic region	Kaustav Chakravarty, (IITM)
30	17:03-17:06	Quantification of absorbing aerosol types over the IGP region from AERONET: Comparison with models	Kamran Ansari, (PRL)
31	17:06-17:09	Statistical Relationship Between Atmospheric Parameters And Their Impacts On Climate Change	Sandra Vasudevan, (St. Joseph's college for women)
32	17:09-17:12	Altitudinal variation of raindrop size distribution over northern Indian ocean observed during ICARB	Dr. NVP Kiran Kumar, (ISRO)
33	17:12-17:15	Distribution of Particulate matters over Delhi during 2017-2019: Linkages to micro meteorology	Chetna, (University of Delhi)

34	17:15-17:18	Case studies of different types of Precipitation over Arctic	Saurabh Das, (IIT Indore)
35	17:18-17:21	Study of spatio-temporal variations in aerosol-cloud properties over Western India and Arabian Sea	Ruchita Shah Pandit, (Deendayal Energy University, Raisan)
36	17:21-17:24	Oxidative Potential and Risk Characterization of Heavy Metals in PM1 during Foggy and Non-Foggy at a	Isha Goyal, (Dayalbagh Educational Institute)
37	17:24-17:27	Atmospheric PM2.5 and NO2 concentration during lockdown & post-lockdown period in 5 Indian cities	Simran Bamola, (Dayalbagh Educational Institute)
38	17:27-17:30	Degradation of Air Quality of Delhi due to Crop Residue Burning in Haryana	Pallavi Saxena, DES, (Hindu College, University of Delhi)

PLENARY SESSION 2 : MIDDLE ATMOSPHERE, ATMOSPHERIC COUPLING, DYNAMICS AND CLIMATE CHANGE			
Convenor	**Kishore Kumar K (SPL)**		
Co - convenor	**Tarun Pant (SPL), Dr. D. Bala Subrahamanyam (SPL), Nirvikar Dashora (NARL)**		
PS2 | DAY 1 : MONDAY, 31 JANUARY, 2022; SESSION A			
Session chair	**Tarun Pant and Nirvikar Dashora**		
Serial No.	**Time (IST)**	**Title**	**Speaker (Affiliation)**
1	14:00-14:45	Atmospheric Sciences With the ST Radar Facility	Ashik Paul, (University of Calcutta)
2	14:45-15:00	Study of daytime E-region ionospheric zonal drifts and high-low latitude coupling.	Tarun Kumar Pant, (VSSC, ISRO)
3	15:00-15:15	New data analysis tool on digisonde observations for scientific investigations	Janardana Reddy G, (National Atmospheric Research Laboratory, Gadanki)
4	15:15-15:30	Equatorial ionospheric study using GMRT	Sarvesh Mangla (IIT Indore)
5	15:30-15:45	Observations of Summer Night-Time FAI Using University of Calcutta ST Radar	Tanmay Das (Calcutta University)
6	15:45-16:00	Thermospheric neutral winds and temperature: First results from an Indian equatorial station	Md. Mosarraf Hossain (Space Physics Laboratory, VSSC)
Break (16:00 - 16:30)			
PS2 | DAY 1 : MONDAY, 31 JANUARY, 2022; SESSION B			
Session chair	**Tarun Pant and Nirvikar Dashora**		
7	16:30-16:45	Assesment on the day-to-day variability of the equatorial plasma bubble	Suman Kumar Das, PRL
8	16:45-17:00	A study of Fascinating Equatorial Plasma Bubble Event Imaged through All-Sky Imager Over Indian Sect	Onkar Gurav (Bharati Vidyapeeth, Pune)
9	17:00-17:15	Daytime thermospheric wave dynamics and day-to-day variability in the occurrence of ESF	Subir Mandal, PRL
10	17:15-17:30	Intermediate Descending Layers [IL] over the equatorial location of Thiruvananthapuram	Mridula N (SPL, VSSC)
11	17:30-17:45	Tidal influence on the generation of post-midnight F region irregularities	Meenakshi S (National Atmospheric Research Laboratory, Gadanki)

12	17:45-18:00	Automatic detection of Sporadic E event in the CADI ionograms for the study of its effect on F layer	T. Venkateswara Rao (KL University, Vijayawada)
13	18:00-18:15	Ionospheric vertical plasma drift model developed for the Indian and Indonesian sectors	Pavan Chaitanya (National Atmospheric Research Laboratory, Gadanki)
14	18:15-18:30	Performance evolution of IRI Plas and SAMI2 models during solar minimum around 100°E	Angkita Hazarika (Dibrugarh University)

PS2 | DAY 2 : TUESDAY, 1 FEBRUARY, 2022; SESSION A			
Session chair	**Tarun Pant and Nirvikar Dashora**		
1	14:00-14:15	The supersubstorms of solar cycle 24: The sources, energy coupling and impacts on the SW-M-I system	Sritam Hajra (National Atmospheric Research Laboratory, Gadanki)
2	14:15-14:30	On the seasonal response of the equatorial and low latitude ionosphere to major geomagnetic storms	Sripathi S (Indian Institute of Geomagnetism, Mumbai)
3	14:30-14:45	Distinct Ionospheric response to three different geomagnetic storms during 2016 using GPS-TEC	Duvvu Lissa (Andhra University)
4	14:45-15:00	Spatio-temporal confinement of ionospheric responses over during St. Patrick's Day storm of March 20	Sk Samin Kader (National Atmospheric Research Laboratory, Gadanki)
5	15:00-15:15	Aspects related to variability in radiative cooling by NO, and TEC&O/N2 during Halloween Storm	Alok Kumar Ranjan (Indian Institute of Technology Roorkee)
6	15:15-15:30	Atmospheric and Ionospheric response to Major Sudden Stratospheric Warming (SSW) Episodes	Jinee Gogoi (Dibrugarh University)
7	15:30-15:45	Lower atmosphere-ionosphere coupling: Observations of HUDHUD cyclone using AIRS and GPS network	V.K.D. Srinivasu (National Atmospheric Research Laboratory, Gadanki)
8	15:45-16:00	Association between earthquake and equatorial wave	Manohar Lal (Indian Institute of Geomagnetism)
Break (16:00 - 16:30)			

PS2 | DAY 2 : TUESDAY, 1 FEBRUARY, 2022; SESSION B			
Session chair	**Tarun Pant and Nirvikar Dashora**		
9	16:30-16:45	Impact of stratospheric ozone and mesospheric tides on enhanced occurrence of 150-km echoes in 2019	Reetambhara Dutta (National Atmospheric Research Laboratory, Gadanki)
10	16:45-17:00	OI 630 nm nightglow variability during post-sunset time over low-latitude thermosphere	Sovan Saha, (PRL)
11	17:00-17:15	3-D characterization of daytime gravity waves obtained using optical and radio measurements	Sunil Kumar, (PRL)
12	17:15-17:30	Terdiurnal and gravity wave influences on OH(3-1) brightness and its rotational temperatures measured by PRL Airglow InfraRed Spectrograph (PAIRS)	Ravindra Pratap Singh, (PRL)
13	17:30-17:45	Discrimination of Doppler Shift In Atmospheric Gravity Wave Signatures Due To Horizontal Background Wind Using Dictionary Learning	Varanasi Satya Sreekanth, (National Atmospheric Research Laboratory, Gadanki)
14	17:45-18:00	Detection of Lightning Induced Gravity Wave from NavIC Signal and Ground Data	Soumen Datta, (IIT Indore)
15	18:00-18:15	Planetary wave dynamical variability at low latitude middle atmosphere during September 2019 SSW	Gourav Mitra, (PRL)
16	18:15-18:30	Response of Brewer-Dobson Circulation to SSWs over the Northern and Southern Hemisphere	Veenus Venugopal, (SPL ISRO)

PS2 | DAY 3 : WEDNESDAY, 2 FEBRUARY, 2022; SESSION A			
Session chair	Kishore Kumar K and Dr. D. Bala Subrahamanyam		
1	14:00-14:45	Space Weather Research from Space-based Platforms	D. Pallamraju, (PRL)
2	14:45-15:00	Equatorial upper mesospheric mean winds and tidal response to strong El Niño and La Niña	S. Sridharan, (National Atmospheric Research Laboratory, Gadanki)
3	15:00-15:15	New insights into the Mesospheric Quasi-biennial Oscillation: Observations and Model Simulations	K. Kishore Kumar, (SPL VSSC ISRO)
4	15:15-15:30	Study of long-term variability in the mesospheric mean winds observed by MF radar over Kolhapur	Gouri Prashant Naniwadear, (Shivaji University, Kolhapur)
5	15:30-15:45	Intraseasonal oscillations in the equatorial middle atmosphere	Amitava Guharay, (PRL)
6	15:45-16:00	Long-term variability and tendencies in diurnal tide from WACCM6 simulations	K. Ramesh, (SPL VSSC ISRO)
Break (16:00 - 16:30)			
PS2 | DAY 3 : WEDNESDAY, 2 FEBRUARY, 2022; SESSION B			
Session chair	Kishore Kumar K and Dr. D. Bala Subrahamanyam		
7	16:30-16:45	On the anomalous weakening of migrating diurnal tides in the mesosphere lower thermosphere	Prijith S. S., (SPL VSSC ISRO)

8	16:45-17:00	Initial observations of atmospheric ozone with NARL DIAL system	K. RaghuNath (National Atmospheric Research Laboratory, Gadanki)
9	17:00-17:15	Performance characteristics of Single cell Raman gas mixture for DIAL Ozone lidar	M Roja Raman (CRSG, Sathyabama Institute of Science and Technology, Chennai)
10	17:15-17:30	Hadley Cell Dynamics in IITM- Earth System Model: Evaluation using ERA-5 reanalysis	Sneha Susam Mathew, (SPL VSSC ISRO)
11	17:30-17:45	Influence of southern hemispheric upper troposphere PV intrusion events on the SWMR	M Sandhya, (Providence Women's College, Calicut)
12	17:45-18:00	An overview of the vertical distribution of the UTLS chemical composition over ASMA	Hemanth Kumar (National Atmospheric Research Laboratory, Gadanki)
13	18:00-18:15	Asian Summer Monsoon Anticyclone (ASMA) and its Variability	Sanjay Kumar Mehta, (SRM Institute of Science and Technology, Kattankulathur)
14	18:15-18:30	Defining the upper boundary of the Asian Tropopause Aerosol Layer (ATAL) using the Static Stability	Akhil Raj S T, (NARL, Gadanki)
PS2 | DAY 4 : THURSDAY, 3 FEBRUARY, 2022; SESSION A			
Session chair	**Kishore Kumar K and Dr. D. Bala Subrahamanyam**		
1	14:00-14:15	ARIES Wind Profiler: First Central Himalayan VHF ST Radar	Samaresh Bhattacharjee, (ARIES)
2	14:15-14:30	Atmospheric Investigations During COVID19 Pandemic	Som Kumar Sharma, (PRL)
3	14:30-14:45	Diagnosing the stratospheric water vapour to climate change	Siddarth Shankar Das, (SPL VSSC ISRO)
4	14:45-15:00	Effect of cirrus on the thermal structure of TTL inferred from MPL and Radiosonde observations	Saleem Ali, (SRM Institute of Science and Technology, Kattankulathur)
5	15:00-15:15	In situ observations of super-saturation and its association with cirrus clouds over Indian region	Maria Emmanuel, (SPL VSSC ISRO)
6	15:15-15:30	Cirrus Fraction and Cirrus Reflectance with Respect to Precipitation Characteristics Over Indian Sub-Continent.	Priya J S, (TKM College of Arts & Science, Karicode, Peroor, Kollam)
7	15:30-15:45	Characterising the layers of enhanced turbulence using VHF radar over central Himalayan site	Aditya Jaiswal, (ARIES)
8	15:45-16:00	A new approach to explore Hadley Cell Dynamics at regional scales using Radio Occultation Technique	Anjana, (SPL VSSC ISRO)

Break (16:00 - 16:30)			
PS2 | DAY 4 : THURSDAY, 3 FEBRUARY, 2022; SESSION B			
Session chair	**Kishore Kumar K and Dr. D. Bala Subrahamanyam**		
9	16:30-16:45	Balloon borne aerosol-cloud interaction studies (BACIS): New observational techniques to understand	Ravi Kiran V, (National Atmospheric Research Laboratory, Gadanki)
10	16:45-17:00	Long term changes in aerosol and its impact on cloud, temperature and rainfall over northeast monsoon region Chennai (12.82°N, 80.04°E)	Aravindhavel A, (SRM Institute of Science and Technology, Kattankulathur)
11	17:00-17:15	Aerosol-cloud-precipitation relationship under maritime and anthropogenic polluted conditions	Shivali Verma, (National Remote sensing Centre, Hyderabad)
12	17:15-17:30	Unraveling the characteristics of Atmospheric Boundary Layer over Ahmedabad	Sourita Saha, (PRL)
13	17:30-17:45	Atmospheric boundary layer height detection using the wavelet covariance transform	TV Ramesh Reddy, (SRM Institute of Science and Technology)
14	17:45-18:00	Variation of Surface Latent Heat Flux (SLHF) as observed during high magnitude earthquakes	Pooja Sharma, (Manav Rachna University ,Faridabad)
15	18:00-18:15	Impact of Covid-19 Lockdown on Land Surface Albedo (LSA) and associated climatic variables over metr	V Keerthi, (NRSC, ISRO)
16	18:15-18:30	Decadal changes in atmospheric methane emissions over the Eastern Himalayan region: source apportion	Arshini Saikia, (Dibrugarh University)

PLENARY SESSION 3 : SOLAR AND PLANETARY SCIENCES			
Convenor	**Dipankar Banerjee (ARIES)**		
Co - convenor	**Sankarasubramaniyan K (URSC), Satheesh Thampi (VSCC), Shyama Narendranath (URSC)**		
PS3 | DAY 1 : MONDAY, 31 JANUARY, 2022; SESSION A			
Session chair	**Dipankar Banerjee (ARIES)**		
Session co-chair(s)	**Smitha V Thampi (SPL)**		
Serial No.	**Time (IST)**	**Title**	**Speaker (Affiliation)**
1	14:00 - 14:45	Observing Solar Activity from Ground and Space	Nandita Srivastava, (PRL)
2	14:45 - 15:05	Magnetic Reconnection and Particle Acceleration in High Lundquist Number Systems	Arghyadeep Paul, (IIT Indore)
3	15:05 - 15:25	Propagation characteristics of a Coronal Mass Ejection throughout inner solar system from multipoint	Shirsh Lata Soni,(VSSC ISRO)
4	15:25 - 15:45	Magnetohydrodynamic simulations of the impact of a coronal mass ejection on the global magnetosphere	Souvik Roy, (CESSI, IISER Kolkata)
5	15:45 - 16:05	Multiple particle injections in the Earth's Magnetosphere by an isolated IP Shock	Ankush Bhaskar, (VSSC ISRO)
Break (16:05 - 16:30)			
PS3 | DAY 1 : MONDAY, 31 JANUARY, 2022; SESSION B			
Session chair	**Satheesh Thampi (SPL)**		
Session co-chair(s)	**Divya Oberoi (NCRA)**		
6	16:30 - 16:50	A study on the coupling between IMF Bz and Dst under 22nd and 23rd solar cycles	Amrutha S, (University of Kerala)
7	16:50 - 17:10	Corotating Interaction Regions during Solar Cycle 24: A Study on Characteristics and Geo-effectiveness	Jibin V Sunny, (IIT Indore)
8	17:10 - 17:30	Recent Results on Martian Space Weather Events	Smitha V Thampi, (VSSC ISRO)
9	17:30 - 17:50	A magnetohydrodynamic trip to the Martian environment	Arnab Basak, (CESSI, IISER Kolkata)
10	17:50 - 18:10	The correlation analysis of SF parameter with SEP parameter based on the impulsive time of SF and originated from the western hemisphere	Biji M. S, (University of Kerala)

11	18:10 - 18:13	Observations of Summer Night-Time FAI Using University of Calcutta ST Radar	Tanmay Das, (Institute of Radio Physics and Electronics, University of Calcutta)
12	18:13 - 18:16	Study of periodicities of Sunspot Number and seasonal Kerala rainfall using Wavelet Analysis	Elizabeth Thomas, (Mar Thoma College, Kerala)
13	18:16 - 18:19	Morphology of Quietest and Most Disturbed days during 24 Solar Cycle	Chogyel Wangchuk, (Goyal Shimla University)
14	18:19 - 18:22	A Comprehensive Study on the Impact of Solar Flare X-ray Flux on Geomagnetic Field Disturbance	Gopika S Vijayan, (University of Kerala)
15	18:22 - 18:25	Particle Bursts In Geotail Observed By CLASS On Chandrayaan-2	Kiran Sreekumar, (Amrita University)

PS3 | DAY 2 : TUESDAY, 1 FEBRUARY, 2022; SESSION A			
Session chair	**K. Sankarasubramanian (URSC)**		
Session co-chair(s)	**Bhuwan Joshi (PRL)**		
1	14:00 - 14:45	Radio studies of the dynamic solar corona	Divya Oberoi, (TIFR)
2	14:45 - 15:05	Signatures of ubiquitous magnetic reconnection in the lower solar atmosphere	Jayant Joshi, (IIA)
3	15:05 - 15:25	Soft X-ray Spectral Diagnostics of Multi-thermal Plasma in Solar Flares with Chandrayaan-2 XSM	Mithun N. P. S., (PRL)
4	15:25 - 15:45	Coronal Magnetic fields and Sensitivity Requirements for Spectropolarimetry Channel of VELC/Aditya-L1	K. Sasikumar Raja (IIA)
5	15:45 - 16:05	Propagation of acoustic-gravity waves in magnetized regions in the lower solar atmosphere	Hirdesh Kumar, (PRL)
Break (16:05 - 16:30)			

PS3 | DAY 2 : TUESDAY, 1 FEBRUARY, 2022; SESSION B			
Session chair	**Shyama Narendranath (URSC)**		
Session co-chair(s)	**M Shanmugham (PRL)**		
6	16:30 - 16:50	Solar Ultraviolet Imaging Telescope (SUIT) Forward Modeling	Soumya Roy, (IUCAA)
7	16:50 - 17:10	Coupling of CME kinematics from inner to outer corona, and influence of their source regions	Satabdwa Majumdar, (IIA)
8	17:10 - 17:30	Recent developments in space weather research with high fidelity low-frequency spectro-polarimetric	Devojyoti Kansabanik, (NCRA)
9	17:30 - 17:50	Constraining the source of an anomalous impact melt deposit on the lunar far side: New insights	Deepak Dhingra, (IIT Kanpur)
10	17:50 - 18:10	A machine learning framework for global Mg-Spinel detection based on Chandrayaan-1 data	Suchit Purohit, (Gujarat University)
11	18:10 - 18:13	Simulation of solar coronal mass ejections due to twisted flux rope emergence	Samriddhi Sankar Maity, (IISc)
12	18:13 - 18:16	Study of lunar crater floor deformation induced by the magma intrusion	P. Achintya, (IIST)
13	18:16 - 18:19	Moon Imaging using Advanced Indian MST Radar	Ashish, (NARL)
14	18:19 - 18:22	Mg-Spinel exposures in the South-Pole Aitken (SPA) basin region on the Moon	Garima Sodha, (IIT Kanpur)
15	18:22 - 18:25	Petrogenesis of non-KREEP lunar basalts: an unidentified Fe-rich mantle source	Yash Srivastava, (PRL)

PS3 | DAY 3 : WEDNESDAY, 2 FEBRUARY, 2022; SESSION A			
Session chair	**N V Rao (NARL)**		
Session co-chair(s)	**Megha Bhatt (PRL)**		
1	14:00 - 14:45	Exploring the lunar neutral and plasma environment	M B Dhanya, (VSSC)
2	14:45 - 15:05	Understanding the M3 layer in the Martian dayside ionosphere using MAVEN observations	Vrinda Mukundan, (NCESS)
3	15:05 - 15:25	What controls V1 layer: A study using Akatsuki and Venus Express measurements and One dimensional Photochemical model	Ambili K M, (SPL ISRO)
4	15:25 - 15:45	The Martian dust cycle: Understanding dust devils	Varun Sheel, (PRL)
5	15:45 - 16:05	MOM and MAVEN Observations of the Effects of the 2018 Global Dust Event on the Martian Thermosphere	N V Rao, (NARL)
Break (16:05 - 16:30)			
PS3 | DAY 3 : WEDNESDAY, 2 FEBRUARY, 2022; SESSION B			
Session chair	**Varun Sheel (PRL)**		
Session co-chair(s)	**Dr Rajesh V J (IIST)**		
6	16:30 - 16:50	Mapping global lunar elemental abundance: A systematic study of CLASS and M3 data	Megha Bhatt, (PRL)
7	16:50 - 17:10	Boulder Fall Ejecta on Mars: Present day activity	S. Vijayan, (PRL)
8	17:10 - 17:30	Potential role of water and debris-flows in gully formation on Mars	Rishitosh Kumar Sinha, (PRL)
9	17:30 - 17:50	Geological characterization of a floor-fractured crater in North-Central Arabia Terra, Mars: Implications for possible igneous processes in the earlier epochs	Alka Rani, (PRL)
10	17:50 - 18:10	Unravelling the complexities in central peak morphology of lunar complex craters: A global study	Roshan A. Shukla, (IIT Kanpur)
11	18:10 - 18:13	Evidence for fluvial activities in an impact crater in Ma'adim Vallis region of Mars.	S Tuhi, (Anna University)
12	18:13 - 18:16	Latitudinal and Seasonal Asymmetries of the Helium bulge in the Martian Upper Atmosphere	Neha Gupta, (IIST)

13	18:16 - 18:19	SHARAD detection of extensive sedimentary deposition in unnamed crater near Mangala Fossa, Mars	Rajiv R. Bharti, (PRL)
14	18:19 - 18:22	Chemistry of water, nitrogenated and deuterated ions and escape rate of H2O on Mars	Siddhi Shah, (PRL)
15	18:22 - 18:25	Morphometric characterization of aeolian dominated landscape proximal to the landing site of Mars 2020 Perseverance rover in Jezero Crater, Mars.	Nitika Sachdeva, (Delhi Technological University)

PS3 | DAY 4 : THURSDAY, 3 FEBRUARY, 2022; SESSION A			
Session chair	**Ambili K M (SPL)**		
Session co-chair(s)	**Bhala Shivaraman (PRL)**		
1	14:00 - 14:45	Exo-planetary atmospheres and their link to planetary formation	Liton Majumder, (NISER)
2	14:45 - 15:05	The effect of metallicity on the Atmospheric composition of Exoplanets atmospheres	Vikas Soni, (PRL)
3	15:05 - 15:25	VUV spectra of Thermally Processed CS2 - NH3 Ice mixtures – Implications to icy solar system objects	Pavithraa Sundararajan, (PRL)
4	15:25 - 15:45	Investigation of polycyclic aromatic hydrocarbons (PAHs) on a sample of comets	Arijit Roy, (PRL)
5	15:45 - 16:05	Amino acids in astrochemical impact induced shock conditions: Implications to the origins of life	Surendra V Singh, (PRL)
Break (16:05 - 16:30)			

PS3 | DAY 4 : THURSDAY, 3 FEBRUARY, 2022; SESSION B			
Session chair	**Deepak Dhingra (IIT Kanpur)**		
Session co-chair(s)	**Vijayan S (PRL)**		
6	16:30 - 16:50	Neon in Terrestrial planets	Satvika Jaiswal, (Banasthali)
7	16:50 - 17:10	Gas-phase Modeling of the Cometary Coma of the Interstellar Comet 2I/Borisov	Sana Ahmed, (PRL)
8	17:10 - 17:30	On fragmentation of long lasting overdense meteor trail echoes detected with Gadanki MST radar	K. Chenna Reddy, (Osmania University)
9	17:30 - 17:50	Diversity in Mineralogy of Mukundpura Meteorite	Dipak Kumar Panda, (PRL)
10	17:50 - 18:10	In-situ exploration of the lunar polar regions: A mission in study phase	S. Megala, (ISRO)
11	18:10 - 18:13	Studying the Properties of the Extra-solar Planet Atmospheres	Mousam Maity, (Presidency University Kolkata)
12	18:13 - 18:16	Seasonal variation in the composition of Martian upper atmosphere	Koyena Das, (LATMOS, France)
13	18:16 - 18:19	Chemical weathering and laterization of Sivagangai formation, India A potential Mars analogue	K Vigneshwaran, (Government Arts College, Salem)
14	18:19 - 18:22	Early thermal evolution of Earth's embryos due to 26Al and impact-generated steam atmosphere	Gurpreet Kaur Bhatia, (Maharishi Markandeshwar)
15	18:22 - 18:25	Impact-induced deformation features from the target rocks of Ramgarh Crater, Rajasthan, India	Aneesh Kumar V, (University of Kerala)

PLENARY SESSION 4 : ASTRONOMY AND ASTROPHYSICS			
Convenor	**Santosh Vadawale (PRL)**		
Co - convenor	**Radhakrishna V (URSC), Ritaban Chatterjee (Presidency University), Mousumi Das (IIA)**		
PS4 | DAY 1 : MONDAY, 31 JANUARY, 2022; SESSION A			
Session chair	**Mousumi Das (IIA)**		
Session co-chair(s)	**Santosh Vadawale (PRL)**		
Serial No.	**Time (IST)**	**Title**	**Speaker (Affiliation)**
1	14:00 - 14:40	Future Vision for Astronomy and Astrophysics in India	G. C. Anupama, (IIA)
2	14:40 - 15:00	Science with proposed UV space mission: INSIST	Maheswar Gopinathan,(IIA)
3	15:00 - 15:20	Daksha: Indian eyes on transient skies	Varun Bhalerao, (IIT Bombay)
4	15:20 - 15:40	UVIT study of T-Tauri Stars	Prasanta Kumar Nayak, (TIFR)
5	15:40 - 16:00	Minerals in the ISM are Made in an Instant	Arijit Roy, (PRL)
Break (16:00 - 16:30)			
PS4 | DAY 1 : MONDAY, 31 JANUARY, 2022; SESSION B			
Session chair	**P. Manoj (TIFR)**		
Session co-chair(s)	**V. Radhakrishna (URSC)**		
6	16:30 - 16:50	A UVIT look at Star Formation in Merging and Interacting Galaxies	Mousumi Das, (IIA)
7	16:50 - 17:10	Discovery of a large, diffuse star-forming galaxy using UVIT and MUSE	Jyoti Yadav, (IIA)
8	17:10 - 17:30	Non-isothermal vertical density distribution of stars in the Milky Way	Suchira Sarkar, (IISc)
9	17:30 - 17:50	Star-dust geometry as main determinant of dust attenuation in galaxies	Sonali Sachdeva, (RRI)
10	17:50 - 18:10	Clues of Dark Matter Distribution in Galaxies from Bar Buckling	Ankit Kumar, (IIA)
11	18:10 -18:13	Spectral Characterization of M-Dwarf Stars with ASTROSAT-UVIT	Prasanta Kumar Nayak, (TIFR)
12	18:13 - 18:16	Photometric Variability in Young Brown Dwarfs to Probe their Atmospheric Properties	Rajib Kumbhakar, (SNBNCBS)

13	18:16 - 18:19	Short-Timescale Variability of the Blazar Mrk 421 from AstroSat and Simultaneous Multi-Wavelength	Susmita Das, (Presidency University Kolkata)
14	18:19 - 18:22	Hot horizontal branch stars in NGC 2298: Clues about their origin from AstroSat/UVIT study	Gajendra Pandey, (IIA)
15	18:22 - 18:25	Gaia 20eae: A newly discovered episodically accreting young star	Arpan Ghosh, (ARIES)
16	18:25 - 18:28	Photoionization Modeling of the Dusty Nova V1280 Scorpii	Ruchi Pandey, (SNBNCBS)

PS4 | DAY 2 : TUESDAY, 1 FEBRUARY, 2022; SESSION A			
Session chair	**Gulab Dewangan (IUCAA)**		
Session co-chair(s)	**Sarita Vig (IIST)**		
1	14:00 - 14:40	The Emerging Field of Sub-mm Astronomy	Bhaswati Mookerjea, (TIFR)
2	14:40 - 15:00	Understanding of Pre-main Sequence Stars in Galactic Star-Forming Regions	Soumen Mondal, (SNBNCBS)
3	15:00 - 15:15	ALMA detection of the glycine precursor amino acetonitrile towards hot molecular core G10.47+0.03	Arijit Manna, (Midnapore City College)
4	15:15 - 15:30	A Gaia kinematic study of ages of debris disks and exoplanet host stars: Are Jupiter-hosting stars young?	Mayank Narang, (TIFR)
5	15:30 - 15:45	Are giant planet-hosting stars young? Evidence from galactic chemical evolution	Swastik Chowbay, (IIA)
6	15:45 - 16:00	Cosmic rays diffusion and gravitational collapse in radiative molecular clouds	Ram Prasad Prajapati, (JNU)
Break (16:00 - 16:30)			

PS4 | DAY 2 : TUESDAY, 1 FEBRUARY, 2022; SESSION B			
Session chair	**Preeti Kharb (NCRA)**		
Session co-chair(s)	**Ritaban Chatterjee (Presidency University)**		
7	16:30 - 16:45	Validating different modes of AGN feedback through X-ray observations	Rudrani Kar Chowdhury, (The University of Hong Kong)
8	16:45 - 17:00	RMS-Flux Relation and Disc-Jet Connection in Blazars in the Context of the Internal Shocks Model	Aritra Kundu, (Presidency University Kolkata)
9	17:00 - 17:15	Relative Contribution of X-ray Reprocessing and Disk Fluctuations in the Long-term Optical Variability of the Radio Galaxies 3C 120 and 3C 111	Nabanita Das, (Presidency University Kolkata)
10	17:15 - 17:30	Decoding the largest radio galaxies in the Universe	Pratik Dabhade, (Observatoire de Paris, France)
11	17:30 - 17:45	Study of External Compton Mechanism in the Context of Astrophysical Jets	Sriyasriti Acharya,(IIT Indore)
12	17:45 - 18:00	A 325 MHz Survey of the Lockman Hole Field using the GMRT	Aishrila Mazumder, (IIT Indore)
13	18:00 - 18:03	Discovery of 2716 hot emission-line stars from LAMOST DR5	Shridharan Baskaran, (Christ University)
14	18:03 - 18:06	Identification of a rare class of emission-line stars between PMS and MS phase	Suman Bhattacharyya, (Christ University)
15	18:06 - 18:09	Study of classical Be stars using optical spectroscopy	Gourav Banerjee, (Chirst University)
16	18:09 - 18:12	Characterizing the behaviour of SN 2013he: a luminous, short plateau supernova	Darshana Mehta, (ARIES)
17	18:12 - 18:15	Revealing lack of X-ray/UV correlation in narrow line Seyfert 1 galaxy Mrk 1044	Samuzal Barua, (Gauhati University)
18	18:15 - 18:18	A comparative study of the optical and IR variability of NLSy1 and BLSy1 galaxies	Aratrika Dey, (IIA)
19	18:18 - 18:21	Fullerenes and their derivatives in interstellar environments	Akant Vats, (Banaras Hindu University)
20	18:21 - 18:24	Broad-Line Region and Black-hole Mass of PKS 0736+017	Shivangi Pandey, (ARIES)

PS4 | DAY 3 : WEDNESDAY, 2 FEBRUARY, 2022; SESSION A			
Session chair	Ranjeev Misra (IUCAA)		
Session co-chair(s)	Anuj Nandi (URSC)		
1	14:00 - 14:40	Exploring the X-ray Universe	Biswajit Paul, (RRI)
2	14:40 - 15:00	Probing the accretion flow properties of NS LMXB 4U 1608-52 using AstroSat observations	Biplob Sarkar, (Tezpur University)
3	15:00 - 15:20	Thermonuclear X-ray Bursts from Low-mass X-ray Binary 4U 1636-536 observed with AstroSat and NuSTAR	Pinaki Roy, (IISER Mohali)
4	15:20 - 15:40	An in-depth X-ray look at two magnetars: CXOU J010043.1−721134 and SGR J1935+2154	Rwitika Chatterjee, (URSC ISRO)
5	15:40 - 16:00	Effect of nuclear symmetry energy on neutron star properties	Vivek Baruha Thapa, (IIT Jodhpur)
Break (16:00 - 16:30)			
PS4 | DAY 3 : WEDNESDAY, 2 FEBRUARY, 2022; SESSION B			
Session chair	Indraneel Chattopadhyay (ARIES)		
Session co-chair(s)	M. C. Ramadevi (URSC)		
6	16:30 - 16:50	Accretion flows around strongly magnetised neutron stars	Shilpa Sarkar, (ARIES)
7	16:50 - 17:10	The life cycle of magnetars: a novel approach to estimate their ages	Tushar Mondal, (ICTS)
8	17:10 - 17:30	AstroSat and NuSTAR view of GRS 1758-258 and 1E 1740- 2942:Evidence of Relativistic Disc Reflection	Bhuvana G.R, (Dayananda Sagar University)
9	17:30 - 17:50	Broadband X-ray Spectral and Temporal Properties of NGC 55 ULX1	Jithesh. V, (SARBTM Govt. College)
10	17:50 - 18:10	Spectral Investigation of Rapid Variability in Narrow-Line Seyfert 1 (NLS1) Galaxy NGC 4051	Neeraj Kumari, (PRL)
11	18:10 - 18:13	X-Ray Properties of TX Cnc, an Eclipsing Solar-Type Contact Binary of W Uma Type	Gurpreet Singh, (ARIES)
12	18:13 - 18:16	3D Simulation of Advective Thick Accretion Disk onto a non-rotating Black Hole	Sudip K Garain, (GITAM)
13	18:16 - 18:19	Discovery of dip in the RGS light curve of GX 13+1 with XMM-Newton	Rabindra Mahato, (Science College Kokrajhar)

14	18:19 - 18:22	Multi-mission probe into low luminosity phase of GRS 1915+105	Athulya Menon, (Dayananda Sagar University)
15	18:22 - 18:25	Broad-band studies of X-ray pulsar 1A 0535+262 during outburst in 2020 using the Chandra and NuSTAR	Manoj Mandal, (Midnapore City College)
16	18:25 - 18:28	Weak Correlation between the Accretion Disc and Jet Power in a Large Sample of Fermi Blazars	Garima Rajguru, (Presidency University)

PS4 | DAY 4 : THURSDAY, 3 FEBRUARY, 2022; SESSION A			
Session chair	**Poonam Chandra (NCRA)**		
Session co-chair(s)	**Vivek Agrawal (URSC)**		
1	14:00 - 14:40	Hunting for Gravitational Waves from Ground and Space	Sanjit Mitra, (IUCAA)
2	14:40 - 15:00	Black hole mass dichotomy in barred and unbarred galaxies of IllustrisTNG-100 simulations.	Sandeep Kumar Kataria, (SJTU Shanghai)
3	15:00 - 15:15	Classification conundrum in Gamma Ray Bursts: Signatures of collapsars in high redshift short GRBs	Dimple, (ARIES)
4	15:15 - 15:30	Properties of high-redshift starburst galaxies and their local analogs contributing to reionization	Abhishek Paswan, (IIA)
5	15:30 - 15:45	Our peculiar motion from Hubble diagram of SNe Ia and implications for Cosmological Principle	Ashok Kumar Singal, (PRL)
6	15:45 - 16:00	Dynamical conditions and causal transport of spherical collapse in f(R,T) gravity	Sarbari Guha, (St. Xavier's College Autonomous Kolkata)
Break (16:00 - 16:30)			

PS4 | DAY 4 : THURSDAY, 3 FEBRUARY, 2022; SESSION B			
Session chair	Harvinder Kaur Jassal (IISER Mohali)		
Session co-chair(s)	Kuntal Mishra (ARIES)		
7	16:30 - 16:50	Probing the nature of Luminous blue variables	Yogesh Joshi, (ARIES)
8	16:50 - 17:10	TESS Observations of TX Col: Rapidly Varying Accretion Flow	Dr. J. C. Pandey, (ARIES)
9	17:10 - 17:30	Investigation of Rocket Effect in Bright-Rimmed Clouds using Gaia EDR3	Piyali Saha, (IIA)
10	17:30 - 17:50	Abundance analysis, production sites and ages of r-process enhanced stars using GTC	Pallavi Saraf, (IIA)
11	17:50 - 18:10	An extremely metal-poor star, contaminated with products of both i- and s-process nucleosynthesis	Partha Pratim Goswami, (IIA)
12	18:10 -18:13	Image Improvement and Restoration in Optical Time Series	Yash Gondhalekar, (BITS Pilani)
13	18:13 - 18:16	Efficient Modeling of Cosmic Reionization using SCRIPT	Barun Maity, (NCRA-TIFR)
14	18:16 - 18:19	Density perturbation and cosmological evolution in the presence of magnetic field in f(R) gravity	Samarjit Chakraborty, (St. Xavier's College Autonomous Kolkata)
15	18:19 - 18:22	Search for merger ejecta emission in Short Gamma Ray Bursts from very late time radio observations	Ankur Ghosh, (ARIES)
16	18:22 - 18:25	uGMRT study of ELAIS-N1 field: the radio-IR relations up to z~2	Akriti Sinha, (IIT Indore)
17	18:25 - 18:28	A Radio and X-ray view of merging cluster A1351	Swarna Chatterjee, (IIT Indore)

PLENARY SESSION 5 : ENABLING TECHNOLOGIES FOR SPACE EXPLORATION			
Convenor	**Tirtha Pratim Das (ISRO HQ)**		
Co-convenor	**N. Raghu Meetei (ISRO HQ), M Durga Rao (NARL), V. K. Rana (RRI)**		
PS5 | DAY 1 : MONDAY, 31 JANUARY, 2022; SESSION A			
Session chair	**Tirtha Pratim Das (ISRO HQ)**		
Session co-chair(s)	**M Durga Rao (NARL)**		
Serial No.	**Time (IST)**	**Title**	**Speaker (Affiliation)**
1	14:00 -14:45	Science Experiments with PSLV Stage-4 (PS4) Orbital Platform	K Rajeev, SPL ISRO
2	14:50 -14:52	NiCoZn Ferrite: burn rate enhancer for AP/HTPB based propellant and its catalytic study	Pragnesh N Dave, Sardar Patel University
3	14:52-14:54	Simulation studies of NMPCC for a nonlinear model of Hexsoon Edu 450 Quadrotor	Sonu N, Manipal Institute of Technology
4	14:54-14:56	Martian Rover for Extraterrestrial Research	Antariksh Ray, SRMIST Kattankulathur
5	14:56-14:58	Fortifying the development of Mars colonization and space biology research in India	Ilankuzhali Elavarasan, Space Development Nexus
6	15:00-15:20	Space Science Research with Sounding Rockets	Binoy Joseph, VSSC
7	15:20-15:40	ISRO's Sounding Rockets: Overview of Instrumentation System for Space Science Experiments	Virender Katewa, VSSC
8	15:40-16:00	Scientific payload electronics for electron and ion density measurements onboard ISRO's sounding rockets	Sreelatha P, SPL-VSSC
Break (16:00 - 16:30)			
PS5 | DAY 1 : MONDAY, 31 JANUARY, 2022; SESSION B			
Session chair	**N. Raghu Meetei (ISRO HQ)**		
Session co-chair(s)	**V. K. Rana (RRI)**		
9	16:30-16:50	**Discussion Break**	
10	16:50-17:10	Design and development of tropospheric zero pressure balloons and flight control instrumentation	Suneel Kumar Buduru, TIFR
11	17:10-17:30	Control instrumentation for high altitude balloon experiments	Kapardhi Bangaru, TIFR

12	17:30-17:50	1U CubeSat and GM counter testing using High Altitude Balloon platform	Binukumar Gopalakrishnan Nair, IIA
13	17:50-18:10	TIFR balloon-borne experiment for far-infrared (FIR) spectroscopic mapping of star-forming region	Pradeep Sandimani, TIFR
14	18:10-18:30	SETI India: Using uGMRT to search for advanced extraterrestrial life	Avinash Kumar, Amity University Mumbai

PS5 | DAY 2 : TUESDAY, 1 FEBRUARY, 2022; SESSION A			
Session chair	**N. Raghu Meetei (ISRO HQ)**		
Session co-chair(s)	**M Durga Rao (NARL)**		
1	14:00 -14:45	Scientific Instrumentation for Space Missions	Tirtha Pratim Das, ISRO
2	14:50-14:52	Design studies on MEMS Quadrupole Mass Filter for Miniature Mass Spectrometer	S. Ashwath, ISRO
3	14:52-14:54	Electronics Development of Neutral and Ion Mass Spectrometer	Piyush Sharma, PRL
4	14:54-14:56	Graphene based soft X-ray windows	Aiswarya P S, Christ University,
5	14:56-14:58	Modeling in-orbit radiation environment using Geant4 simulations for the XSPECT instrument	Kiran M Jayasurya, ISRO
6	15:00-15:20	Neutral Mass Spectrometer on Articulated Payload Platform for Space-borne Experiments	M B Dhanya, VSSC ISRO
7	15:20-15:40	Design and Development of an Instrument for Electric Field Measurement in Planetary Atmosphere	Sanjeev Kumar Mishra, PRL
8	15:40-16:00	Experimental Study of the Response of Space-borne Channel electron multiplier detectors to intermittent high He ion flux	Abhishek JK, SPL- VSSC
Break (16:00 - 16:30)			

PS5 | DAY 2 : TUESDAY, 1 FEBRUARY, 2022; SESSION B			
Session chair	M Durga Rao (NARL)		
Session co-chair(s)	V. K. Rana (RRI)		
9	16:30-16:50	Near Infrared astronomical projects at TIFR	MILIND B. NAIK, TIFR
10	16:50-17:10	Geometric Phase Polarimeter	ATHIRA B S, CESSI
11	17:10-17:30	Development of a SDD based Large Area X-ray Spectrometer with ASIC readout for future planetary missions	Nishant Singh, PRL
12	17:30-17:50	Indigenous 18m antenna at IDSN for planetary and deep space missions	Dharma Narayan Rath, Isro
13	17:50-18:10	Planetary Rover prototype: Mars Amity Surface Characterization & Operations Trainer (MASCOT- 1)	Saksham Bhadani, Amity University Mumbai
14	18:10-18:30	Development of a Compton Imaging Camera for Space Astrophysics	Abhijeet Ghodgaonkar, IIT - Bombay

PS5 | DAY 3 : WEDNESDAY, 2 FEBRUARY, 2022; SESSION A			
Session chair	V. K. Rana (RRI)		
Session co-chair(s)	M Durga Rao (NARL)		
1	14:00 - 14:45	Science in Space: Potential Science Experiments onboard Human Space Missions	N. Raghu Meetei, ISRO
2	14:50-14:52	Daksha: Design and performance of front end electronics	Shriharsh Tendulkar, TIFR
3	14:52-14:54	Artificial Intelligence (AI) in space exploration: an evolutionary opportunity	Prabhat Kumar, BHU
4	14:54-14:56	Comparison Of Solid And Hollow Cylindrical Antennas For Planetary Lightning Detection	Sonam Jitarwal, PRL
5	15:00-15:20	Spider Bio-mimetic Based Reconfigurable Planetary Rover	Kumar Harshit, ISRO
6	15:20-15:40	**Discussion Break**	
7	15:40-16:00	Adaptive hyperspectral imaging using structured illumination in a SLM-based interferometer	Amar Deo Chandra, CESSI
Break (16:00 - 16:30)			

PS5 | DAY 3 : WEDNESDAY, 2 FEBRUARY, 2022; SESSION B			
Session chair	M Durga Rao (NARL)		
Session co-chair(s)	V. K. Rana (RRI)		
8	16:30-16:50	Development of miniaturized front-end electronics for a EUV photometer onboard future missions	Chandan Kumar, PRL
9	16:50-17:10	Crystal based focusing optics for high energy X-rays beyond 100 keV	Vineeth Valsan, Christ University
10	17:10-17:30	Object Detection in Space (ODiS)	Deepak Mishra, IIST
11	17:30-17:50	Space based system for remote sensing solar induced Fluorescence from vegetation - A proposal	Bhavani Kumar Yellapragada, NARL
12	17:50-18:10	Characterization of Silicon Photomultiplier (SiPM) for future Venus orbiter mission	Deepak Kumar Painkra, PRL
13	18:10-18:30	Enabling virtual reality technologies for teaching and training in space science	Sreehari VM, SASTRA Deemed University

PS5 | DAY 4 : THURSDAY, 3 FEBRUARY, 2022; SESSION A			
Session chair	N. Raghu Meetei (ISRO HQ)		
Session co-chair(s)	M Durga Rao (NARL)		
1	14:00 - 14:45	In-Situ Resource Utilisation (ISRU) for Moon and Mars Missions	P. Ganesh, ISRO Propulsion Complex, Mahendragiri
2	14:50-14:52	#RADatHomeIndia 9 years of Indian citizen science research in astronomy	Ananda Hota, RAD@home
3	14:52-14:54	Design and Development of Laboratory-Based Microgravity Experimental Setup	Jaya Krishna Meka, PRL
4	14:54-14:56	Development of Spectrograph in FUV region for a possible ISRO flight	Ghatul Shubham Jankiram, IIA
5	14:56-14:58	Space Exploration using Artificial Intelligence for Human Health	Akhilesh Kumar, BHU
6	15:00-15:20	Development of Position Sensitive Sub-MeV Detectors for Daksha Mission	Mithun N. P. S., PRL
7	15:20-15:40	Optical Design of the Infrared Spectroscopic Imaging Survey (IRSIS) Satellite Payload	Satheesha S. Poojary, TIFR
8	15:40-16:00	The Direction of Arrival with Orthogonally Co-located Dipole Antenna for SEAMS	Harsha A. Tanti, IITI

Short break (16:00 - 16:05)			
PS5 | DAY 4 : THURSDAY, 3 FEBRUARY, 2022; SESSION B			
Session chair	**N. Raghu Meetei (ISRO HQ)**		
Session co-chair(s)	**V. K. Rana (RRI)**		
9	16:05 - 16:50	Humanoid Robots for Space Exploration	Sangeetha G R, VSSC ISRO
10	16:50-17:10	Design and Deployment of Medium Volume Aerostat to Provide Wi-Fi Communication at Remote Sites	Stalin Peter Godi, TIFR
11	17:10-17:30	Effect of microgravity on the growth of Stevia rebaudiana callus: Preflight development	Abigail Fernandes, Amity University Mumbai
12	17:30-17:50	Autonomous Life Growth Experiment–1 (ALGE-1): effect of microgravity on the growth of Stratospheric and non-stratospheric bacterial isolates	Shreya Fadanavis, Amity University Mumbai
13	17:50-18:10	Development of object visibility tool for the SING payload	Shanti Prabha, IIA
14	18:10-18:30	Commercialisation of Enabling Technologies for Space Exploration:Legal Vision with Reference to India	Dr. Malay Adhikari, Amity University, Kolkata