

# NATIONAL CONFERENCE ON POLAR SCIENCES NCPS-2023

May 16-19, 2023  
NCPOR, Goa

<https://ncps.ncpor.res.in> | #NCPS2023 |

Organised by:

National Centre for Polar and Ocean Research  
Ministry of Earth Sciences, Government of India  
Headland Sada, Vasco-da-Gama, Goa 403 804, India



## NCPS-Open Science Conference (OSC)

Date: 18<sup>th</sup> May 2023 (Thursday)

Venue: Auditorium, NCPOR

Time	Programme
08:30 – 09:00	<b>Registration</b>
09:00 – 09:15	<b>Inaugural Programme of OSC-NCPS-2023</b>
	Welcome of dignitaries on the Dais <b>Shri Sanjay Verma, <i>Chief Guest</i></b> Secretary (West), Ministry of External Affairs, Govt. of India <b>Dr. M. Rajeevan, <i>Guest of Honour</i></b> MoES Distinguished Scientist & Former Secretary to the Govt. of India <b>Prof. Harilal B. Menon, <i>Special Guest</i></b> Vice Chancellor, Goa University <b>Dr. Thamban Meloth, Director, NCPOR</b>
	<b>Lighting of Lamp and Invocation</b>
	<b>Welcome Address by Dr. Thamban Meloth, Director, NCPOR</b>
09:15 – 09:20	<b>Welcome Address by Dr. Thamban Meloth, Director, NCPOR</b>
09:20 – 09:25	<b>Address by Prof. Harilal B. Menon, Vice Chancellor, Goa University</b>
09:25 – 09:30	<b>Address by Dr. M. Rajeevan, MoES Distinguished Scientist &amp; Former Secretary to the Govt. of India</b>
09:30 – 09:45	<b>Inaugural Address by Shri Sanjay Verma, Secretary (West), Ministry of External Affairs, Govt. of India</b>
09:45 – 09:55	Felicitation of Dignitaries
09:55 – 10:00	<b>Vote of thanks by Dr. Rahul Mohan, Group Director, Polar Science, NCPOR</b>
10:00 – 10:45	<b>Plenary Talk titled <i>Polar Climate and Monsoon</i> by Dr. M. Rajeevan, MoES Distinguished Scientist &amp; Former Secretary to the Govt. of India</b>
10:45-11:15	<b>Photograph and High Tea - Followed by parallel OSC sessions</b>

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08:30 - 09:30	<b>Registration</b>			
09:30 - 10:00	<b>Inauguration</b>			
10:00 - 10:45	Auditorium <b>PLENARY TALK</b> <b>Dr. M. Rajeevan</b> MoES Distinguished Scientist & Former Secretary to the Govt. of India <b>Talk Title: "Polar Climate and Monsoon"</b>			
10:45 - 11:15	<b>Group Photograph and High Tea</b>			
	<b>PARALLEL SESSION 1 (Auditorium)</b>			
	<b>5. Cryospheric Processes and Dynamics</b> Chairperson: Dr. Rasik Ravindra Former Director, NCPOR			
11:15 - 11:45	Keynote Speaker: Prof. Umesh K. Haritashya University of Dayton USA <b>Talk Title: "A new world of machine learning and glacier mapping"</b>			
Time	Session	Speaker	Reg. No	Title of Presentation
11:45 - 11:55	5b	Yogesh Ray	NCPS2023/4	Deglaciation phases and generation of glacial deposits in Schirmacher Oasis, East Antarctica.
11:55 - 12:05	5b	Parmanand Sharma	NCPS2023/149	Glacier's response to changing climate in Chandra basin, western Himalaya, during the last two decades
12:05 - 12:15	5b	Argha Banerjee	NCPS2023/237	Glacier mass-balance processes to river runoff
12:15 - 12:25	5b	Bhanu Pratap	NCPS2023/242	Glaciological characteristics of the lake terminating Gepang Gath Glacier in the western Himalaya, India.

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Time	Session	Speaker	Reg. No	Title of Presentation
12:25 - 12:35	5b	Meenu Sharma	NCPS2023/296	Source and recharge estimation in groundwater using stable isotopes in the Tawi Watershed, Lesser Himalayas, Jammu District.
12:35 - 12:45	5b	Sandip Kumar Roy	NCPS2023/425	The dynamic East Antarctica Ice Sheet with special reference to cDML-A review.
12:45 - 12:55	5a	Pankaj Kumar	NCPS2023/264	Snowfall from Western Disturbances sustained the "Karakoram Anomaly"
12:55 - 13:05	Flash Presentation by young polar researchers (2 selected participants)			
13:05 - 13:10	Discussion			
13:10 - 14:00	Lunch Break			
14:00 - 15:00	Poster session [Theme No. 2, 3, 5 & 6]			
15:00 - 15:30	Auditorium <b>PLENARY TALK:</b> <b>Prof. Anil Bhardwaj</b> Director, Physical Research Laboratory (PRL), Ahmedabad Talk Title: "Planetary Space Weather: Sun-Planet Connection"			
18:00 - 20:00	NCPS CULTURAL EVENING			

## Theme 5. Cryospheric Processes and Dynamics

Session 5a. Cryospheric processes and variability

Coordinator: **Dr. C.M. Laluraj**, NCPOR, Goa

Session 5b. Glacier dynamics, processes and glacio-hydrological responses

Coordinator: **Dr. Aparna Shukla**, MoES

Rapporteur: Ms. Archana Singh, Dr. Bhanu Pratap, Dr. Vikram Goel, Dr. Saurav Laha, NCPOR



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## NCPS-Open Science Conference (OSC)

Date: 18<sup>th</sup> May 2023 (Thursday)

### PARALLEL SESSION 2 (Seminar Hall)

#### 3. Southern Ocean

Chairperson: Dr. M. Sudhakar  
Former Director, CMLRE

Keynote Speaker: Prof. Harilal B. Menon  
Vice Chancellor, Goa University

11:15 - 11:45

Talk Title: "Implications of planetary boundary layer dynamics on the aerosol radiative forcing in Indian Ocean sector of Southern Ocean"

Time	Session	Speaker	Reg. No	Title of Presentation
11:45 - 11:55	3b	Sarat Chandra Tripathy	NCPS2023/67	Short-term time-series observations of phytoplankton light-absorption and productivity in Prydz Bay, coastal Antarctica
11:55 - 12:05	3c	Nairita Pal	NCPS2023/141	Barotropic Tides in MPAS-Ocean: Impact of Ice Shelf Cavities
12:05 - 12:15	3b	Sudarsana Rao Pandi	NCPS2023/168	Interannual variability of bio-optical characteristics in the Indian sector of the Southern Ocean during austral summer
12:15 - 12:25	3b	Rajani Kanta Mishra	NCPS2023/226	Decadal changes in phytoplankton compositions in Southern Ocean and Global Ocean influenced by biogeochemical variables
12:25 - 12:35	3b	Melena A. Soares	NCPS2023/286	Influence of Circumpolar Deep Water intrusion on the nutrient dynamics and biogeochemical processes at the Polar Front in the Indian sector of the Southern Ocean

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Time	Session	Speaker	Reg. No	Title of Presentation
12:35 - 12:45	3a	Shrivardhan Hulswar	NCPS2023/397	Dimethyl sulfide (DMS) flux parametrization: Quantifying the differences
12:45 - 12:55	3c	Prashant Kumar	NCPS2023/436	Impact of ENSO, SAM and AMO over Extreme Wave Climate in Southern Ocean
12:55 – 13:05	3a	P. Sabu	NCPS2023/452	Recent unusual warming events in the Prydz Bay, East Antarctica during austral summer
13:05 - 13:20	Flash Presentation by young polar researchers (3 selected participants)			
13:20 – 13:30	Discussion			
13:30 – 14:15	Lunch Break			
14:00 – 15:00	Poster session [Theme No. 2, 3, 5 & 6]			
15:00 -15:30	Auditorium PLENARY TALK: Prof. Anil Bhardwaj Director, Physical Research Laboratory (PRL), Ahmedabad Talk Title: "Planetary Space Weather: Sun-Planet Connection"			
2. Space Weather and Meteorology Chairperson: Dr. D. Pallamraju Senior Professor & Dean, Physical Research Laboratory (PRL), Ahmedabad				
Time	Session	Speaker	Reg. No	Title of Presentation
15:40 – 15:50	2b	Rohit Srivastava	NCPS2023/3	Investigation of dust aerosols over the Arctic in regional climate model
15:50 – 16:00	2b	Nuncio Murukesh	NCPS2023/27	Characteristics of precipitation in Arctic- perspectives from Ny Alesund, Svalbard
16:00 – 16:10	2b	Siddarth Shankar Das	NCPS2023/235	A new perspective on multi-platform observations of stratospheric intrusion into the troposphere over Bharti (69.41°S, 76.19°E) during ISEA-35

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Time	Session	Speaker	Reg. No	Title of Presentation
16:10 – 16:20	2b	Anikender Kumar	NCPS2023/277	Simulation and evaluation of short range prediction using Polar WRF model over Antarctica
16:20 – 16:40	Tea Break			
16:40 – 16:50	2b	Mukunda M Gogoi	NCPS2023/460	Decadal variability of aerosol properties over Ny-Ålesund: Results from Indian scientific expeditions to the Arctic
16:50 – 17:00	2a	S Sridharan	NCPS2023/91	Influence of tides in driving the polar upper atmospheric winds
17:00 – 17:10	2a	Amitava Guharay	NCPS2023/278	Response of low-latitude middle atmosphere to a major Antarctic sudden stratospheric warming
17:10 – 17:20	2a	Rashmi Rawat	NCPS2023/357	High and low latitudes coupling during the intense geomagnetic storms of solar cycle 25
17:20 – 17:35	Flash Presentation by young polar researchers (3 selected participants)			
17:35 – 17:45	Discussion			
18:00 – 20:00	NCPS CULTURAL EVENING			

## Theme 2. Space Weather and Meteorology

Session 2a. Solar-terrestrial interaction studies

Coordinator: **Dr. Shailendra Saini**, NCPOR, Goa

Session 2b. Weather and climate

Coordinator: **Prof. K. Satheesan**, CUSAT

Rapporteur: *Mr. Sourav Chatterjee, Dr. Rashmi Rawat, NCPOR*

## Theme 3. Southern Ocean

Session 3a. Ocean-atmospheric Processes

Session 3b. Biogeochemical Processes

Coordinator: **Dr. N. Anilkumar**, NCPOR, Goa

Session 3c. Ocean modelling

Coordinator: **Dr. Vinu K. Valsala**, IITM, Pune



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Rapporteur: Ms. Divya David, Dr. Melena A. Soares, NCPOR

## NCPS-Open Science Conference (OSC)

Date: 18<sup>th</sup> May 2023 (Thursday)

### PARALLEL SESSION 3 (Auditorium Conference Room)

#### 6. Sea ice Variability and Modelling

Chairperson: Dr. P.C. Pandey  
Former Director, NCPOR, Goa

11:15 – 11:35

Invited Speaker: Prof. Vimlesh Pant, IIT Delhi  
Talk Title: "Arctic sea-ice modelling using regional and global models"

11:35 – 11:55

Invited Speaker : Dr. Amita Prabhu, IITM Pune  
Talk Title: "Potential linkages of Greenland Sea ice and Arctic oscillation on the South and East Asian summer Monsoon in the recent decades"

Time	Ses- sion	Speaker	Reg. No	Title of Presentation
11:55 - 12:05	6b	Arnab Mukherjee	NCPS2023/117	Role of oceanic processes on recent decadal changes of sea surface temperature and ice concentration in the Antarctic Ocean
12:05 - 12:15	6b	Jenson V George	NCPS2023/351	PRydzbay Air-Ice-Sea Exchange (PRAISE) observatory: a sea-ice station to monitor climatic relevant processes related to sea-ice in the Eastern Antarctica
12:15 – 12:25	6a	Sourav Chatterjee	NCPS2023/216	Ocean-atmosphere feedback in the Barents-Kara Sea driven by sea ice
12:25 – 12:35	6a	C C Bajish	NCPS2023/42	Record low sea ice cover around Antarctica in two contrasting seasons of ice melt and growth
12:35 – 12:45	Flash Presentation by young polar researchers (2 selected participants)			

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12:45 – 13:00	Discussion
13:00 – 14:00	Lunch Break
14:00 – 15:00	Poster session [Theme No. 2, 3, 5 & 6]
15:00 -15:30	Auditorium <b>PLENARY TALK:</b> <b>Prof. Anil Bhardwaj</b> Director, Physical Research Laboratory (PRL), Ahmedabad Talk Title: "Planetary Space Weather: Sun-Planet Connection"
18:00 – 20:00	<b>NCPS CULTURAL EVENING</b>

## Theme 6. Sea ice variability and modelling

Session 6a. Sea ice variability and dynamics through time and space

Coordinator: **Dr. Pranab Deb**, IIT Kharagpur

Session 6b. Sea-ice modelling and observations

Coordinator: **Dr. Nuncio Murukesh**, NCPOR, Goa

Rapporteur: *Dr. Arnab Mukherjee, Dr. Vidya P. J., NCPOR*



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## POSTER SESSIONS

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Venue: Auditorium Basement

### 2. Space Weather and Meteorology

Board No.	Session No.	Registration No.	Presenter Name	Abstract Title
P.B. 1	2a	NCPS2023/80	Gourav Mitra	Low-latitude planetary wave dynamics during a rare 2019 Antarctic Sudden Stratospheric Warming
P.B. 2	2a	NCPS2023/112	Reetambhara Dutta	Observational evidence for the influence of stratospheric planetary wave and ozone variabilities on the middle atmospheric winds and tides over Antarctica
P.B. 3	2a	NCPS2023/180	Kshitiz Upadhyay	Investigation of M-I coupling generated mid-latitude phenomena using ground-based OI 630.0 nm dayglow measurements
P.B. 4	2a	NCPS2023/44	Jeeva K	Spatial and Temporal Variation of Bipolar Air Ion Concentrations- dual station observation at Maitri and Bharati
P.B. 5	2a	NCPS2023/209	Atul Kulkarni	Quiet time geomagnetic field variations at polar latitudes
P.B. 6	2a	NCPS2023/241	Arun Kumar Singh	Comparison of bottomside ionospheric profile parameters (B0 and B1) extracted from FORMOSAT-7/COSMIC-2 GNSS Radio occultations with Digisondes and IRI-2016 model
P.B. 7	2a	NCPS2023/256	Anand K. Singh	Application of Machine Learning for the Understanding of High-Latitude Substorm Dynamics
P.B. 8	2a	NCPS2023/353	Deepak Kumar Sondhiya	Analysis of variations in Solar and Geomagnetic Parameters for Solar Cycle 24 using Statistical (ANOVA) method
P.B. 9	2a	NCPS2023/380	Gopi K Seemala	Seasonal and solar activity dependence of TEC over Bharati station
P.B. 10	2b	NCPS2023/46	Vivek Kumar	Blizzard Phenomenon in Maitri: An Analysis of 32 Years of Katabatic Wind Pattern
P.B. 11	2b	NCPS2023/111	Peeyush Gupta	Role of Domain Size in Simulating Heavy Precipitation Events over Himalaya using WRF Modeling System
P.B. 12	2b	NCPS2023/157	Ritesh Kumar	Variation of Aerosol Optical properties over the Hornsund, Svalbard Arctic

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Board No.	Session No.	Registration No.	Presenter Name	Abstract Title
P.B. 13	2b	NCPS2023/158	Sunil Kumar	Investigation of Aerosol properties over Indian Antarctic research station Maitri
P.B. 14	2b	NCPS2023/195	Sibin Simon	An extreme precipitation event over Dronning Maud Land, East Antarctica - A case study of an atmospheric river event using the Polar WRF Model
P.B. 15	2b	NCPS2023/458	Adarsh Dube	A study of upper ocean characteristics in response to the three intense re-curling tropical cyclones from the Arabian Sea using satellite and in-situ measurements
P.B. 16	2b	NCPS2023/358	Ajilesh P P	Trends in Tropopause Folding Events Over Antarctica in the Recent Decade Using Movable Atmospheric Radar for Antarctica

2a Solar-terrestrial Interaction Studies

2b Weather and Climate

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### 3. Southern Ocean

Board No.	Session No.	Registration No.	Presenter Name	Abstract Title
P.B. 17	3a	NCPS2023/115	K.Gurumoorthi	Is Pristine Antarctica at Risk from Microplastics?
P.B. 18	3a	NCPS2023/171	I V Satya Chanakya	Ocean-Atmosphere CO <sub>2</sub> Exchange in Southern Ocean During the Last Deglaciation
P.B. 19	3a	NCPS2023/305	Savio Miranda	Paleoclimatic study from Indian Sector of Southern Ocean based on fossil diatoms
P.B. 20	3a	NCPS2023/316	Aswathi Das M. T.	Interaction of coastal and open ocean waters in the Prydz Bay region of the Indian Sector of the Southern Ocean
P.B. 21	3a	NCPS2023/367	Nirmala J	Southward shift of Polar Front in the Indian sector of the Southern Ocean during austral summer 2017: Hydrographic changes and its responses to chlorophyll-a
P.B. 22	3a	NCPS2023/382	Soumya Parab	Reconstructing Southern Ocean Paleoclimates through analysis of <i>Fragilariopsis Kerguelensis</i> and <i>Thalassiosira Lentiginosa</i> diatom size variations
P.B. 23	3a	NCPS2023/420	Sanket Parabgaonkar	Infering paleoclimate from the Kerguelen region of Southern Ocean of past 35ky to 42ky _x000D_
P.B. 24	3a	NCPS2023/445	Jessin Joy Alex	Physical and biogeochemical features in the Polar, Subantarctic, and Subtropical fronts of the Indian sector of the Southern Ocean: Insights from the 8th Indian Ocean expedition
P.B. 25	3a	NCPS2023/246	Srinivas Rao Arvapalli	Occurrence of Antarctic bottom water in the Southwest Indian ridge, the eastern side of the Melville fracture zone
P.B. 26	3b	NCPS2023/89	Sunil Kumar Padhi	Decadal variability of phytoplanktonic productivity in the Indian Sector of the Southern Ocean during austral summer



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Board No.	Session No.	Registration No.	Presenter Name	Abstract Title
P.B. 27	3b	NCPS2023/214	Sreerag A	Phytoplankton diversity in relation to biophysical processes in the Indian sector of Southern Ocean
P.B. 28	3b	NCPS2023/299	Sankirna D. Joge	Sea water Dimethyl sulfide (DMS) climatologies, and trends
P.B. 29	3b	NCPS2023/328	Mohammad Nuruzzama	Biogeochemical cycling of Barium in the Indian Sector of Southern Ocean
P.B. 30	3b	NCPS2023/442	Viola Rodrigues	Oxygen Isotopes in the Southern Ocean during 2017-18 Austral summer
P.B. 31	3b	NCPS2023/446	Krishnaveni Krishnankutty	Observed short-term hydrographic and biogeochemical changes in the Subtropical and Polar Fronts during the austral summer of 2011
P.B. 32	3c	NCPS2023/123	Soumyadeep Dutta	Interannual-to-decadal variability of the Antarctic Slope Front and Southern Boundary of the Antarctic Circumpolar Current in the Indian Sector of the Southern Ocean: A study based on Model and Reanalysis data
P.B. 33	3b	NCPS2023/289	Ejin George	Biogeochemical cycling of cadmium in the Southern Ocean- A promising productivity tracer?
P.B. 34	3b	NCPS2023/314	Prince Prakash	Seasonal chlorophyll modulation in the Indian sector of the Southern Ocean: Bio-Argo measurements

3a Ocean-atmospheric Processes

3b Biogeochemical Processes

3c Godesy and geodynamics

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### 5. Cryospheric Processes and Dynamics

Board No.	Session No.	Registration No.	Presenter Name	Abstract Title
P.B. 35	5a	NCPS2023/8	Gautami Samui	Biogeochemical contributions to supraglacial meltwater chemistry and discharge during summer in coastal Antarctica
P.B. 36	5a	NCPS2023/43	Rahul Sheoran	Acoustic emission analysis of an experimental avalanche slope in Great Himalaya for snow slab fracture prediction for snow slab fracture prediction.
P.B. 37	5a	NCPS2023/156	Ashim Sattar	GLOF DRR (Disaster Risk Reduction)- EWS design and Artificial Lake Lowering
P.B. 38	5a	NCPS2023/185	Uday Kumar	Monitoring Antarctic Ice Mass Balance with GRACE: Insights and Applications
P.B. 39	5a	NCPS2023/202	Ravindra Kumar	Estimating the accuracy of empirical volume estimation models of Glacial Lakes using ICESat/ICESat-2 and multispectral imagery in the Himalayas
P.B. 40	5a	NCPS2023/207	Aaquib Javed	Features of the Western Disturbances impacting Karakoram Anomaly
P.B. 41	5a	NCPS2023/236	Shivangini Singh	Englacial stratigraphy at Dome A, Antarctica derived using airborne radar-sounding surveys: A COLDEX perspective
P.B. 42	5a	NCPS2023/273	Shubham Awasthi	Hybrid polarimetry-based approach for Snow Wetness Estimation using SAR datasets
P.B. 43	5a	NCPS2023/301	Shrutika Wagh	Halogen chemistry over the Indian Antarctic station Bharati
P.B. 44	5a	NCPS2023/311	Mayank Upadhyay	Snow Cover Characterization Using Multi Temporal Sentinel-1 SAR Datasets in the Beas Basin of North-Western Himalayan Region
P.B. 45	5a	NCPS2023/318	Sayantan Mandal	Role of UAV-Remote Sensing for Glacial Health Monitoring in Western Himalayas

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Board No.	Session No.	Registration No.	Presenter Name	Abstract Title
P.B. 46	5a	NCPS2023/322	Priyanka Patel	Estimation of Surface Elevation Changes over Thwaites and Pine Island Glaciers, West Antarctica using SARAL/AltiKa
P.B. 47	5a	NCPS2023/346	Das Jay Sapan	Remote Sensing-Based Investigation of Ice Flow Dynamics over Amery and Brunt Ice Shelves using MODIS Data, Antarctica.
P.B. 48	5a	NCPS2023/415	Pooja Mishra	Development and evolution of surface melt features over Dalk glacier near Bharti station, Antarctica during period 2019-2023
P.B. 49	5a	NCPS2023/416	Shivam Sundram	Concentration and Isotope Ratio of Lead in coastal Antarctic ice: Tracing Sources and Transport Pathways
P.B. 50	5a	NCPS2023/418	Madhukar Srigyan	Role of lithology on supraglacial debris distribution and energy exchange processes over the glaciated terrain of Western Himalaya
P.B. 51	5a	NCPS2023/55	Geetha Priya M	Monitoring of Glacial Lake Dynamics in East Antarctica using UAV-based multispectral data
P.B. 52	5a	NCPS2023/95	Anshuman Misra	Integrated Remote Sensing for Mapping the Seasonal, Annual and Long Term Accumulation and Depletion Patterns of Snow Cover and Their Bearing on Climate Variability in Parts of Gharhwal Himalaya
P.B. 53	5a	NCPS2023/125	Aakriti Srivastava	Unravelling the Mysteries of Antarctic Albedo Changes in Response to ocean-atmospheric Factors
P.B. 54	5a	NCPS2023/142	Surendra Jat	Differential velocity of the Ice sheet in Larsemann Hills area, East Antarctica: Based on precise ground observations
P.B. 55	5a	NCPS2023/343	Ahsan Ul Haq	Application of Ground Penetrating Radar in Permafrost mapping "a case study from Tso-Kar lake basin, Ladakh Himalaya", India.



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NCPOR, Goa

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Ministry of Earth Sciences, Government of India  
Headland Sada, Vasco-da-Gama, Goa 403 804, India

## POSTER SESSIONS

Date: 18<sup>th</sup> May 2023 (Thursday) Time: 14:00 - 15:00 Hrs

Venue: Auditorium Basement

Board No.	Session No.	Registration No.	Presenter Name	Abstract Title
P.B. 56	5a	NCPS2023/361	Vishakha Sood	SCATSAT-1: Application in Snow-cover Monitoring using Super-Resolution Mapping
P.B. 57	5a	NCPS2023/462	Mohammad Saud Afzal	Predictive Tool for Arctic Coastal Hydrodynamics and Sediment
P.B. 58	5b	NCPS2023/22	Rayees Ahmed	Role of lithology on supraglacial debris distribution and energy exchange processes over the glaciated terrain of Western Himalaya
P.B. 59	5b	NCPS2023/68	Tanisha Ghosh	Glacial Lake Outburst Threat Assessment Using AHP Multi-Criteria Decision-Making Techniques in the Sikkim Himalaya
P.B. 60	5b	NCPS2023/106	Arushi Sharma	Semi-Distributed Conceptual Hydrological Modelling of Dunagiri Glacier Streamflow, Dhauliganga River Basin, Central Himalaya, India
P.B. 61	5b	NCPS2023/114	Vikram Goel	Glaciological site survey to determine an optimal ice coring site in coastal Dronning Maud Land, Antarctica
P.B. 62	5b	NCPS2023/121	Payal Sharma	Evaluation of spatial distribution of glacier retreat and its controlling climatic parameters from 1971-2022 in Ravi basin, Western Himalaya
P.B. 63	5b	NCPS2023/127	Sourav Laha	An analysis of Sutri Dhaka glacier discharge in the western Himalaya
P.B. 64	5b	NCPS2023/143	Roja Asharaf	Estimation of Glacier thickness and Volume in Kabul Basin, Afghanistan
P.B. 65	5b	NCPS2023/197	Kamini Meshram	Optical properties and export of dissolved organic matter from Chandra basin glaciers in the western Himalayas
P.B. 66	5b	NCPS2023/203	Vijaya Kumar Thota	Feasibility of using Sentinel-1 data for resolving seasonal ice velocity of glaciers in High Mountain Asia
P.B. 67	5b	NCPS2023/211	Arya A R	Himalayan Glaciers are losing mass at higher rate than previous estimates: A case study in the Baspa river basin

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Board No.	Session No.	Registration No.	Presenter Name	Abstract Title
P.B. 68	5b	NCPS2023/225	Subhranil Mustafi	Ab initio analysis of the Reduction in Snow Cover due to Black Carbon by Cellular Automata
P.B. 69	5b	NCPS2023/261	Atar Singh	Distributed glacier ice thickness and volume estimation for Baspa Basin, Western Himalaya
P.B. 70	5b	NCPS2023/276	Sunil N. Oulkar	Distributed surface energy and mass balance modeling of Chandra Basin glaciers in the semi-arid zone of Western Himalaya
P.B. 71	5b	NCPS2023/300	Umar Faruque	Mapping and Measurement of Glacier Dynamics in Suru Basin
P.B. 72	5b	NCPS2023/303	Durgesh Dwivedi	Temporal Analysis of Glacier Mass Balance of Gori Ganga Basin using IAAR Method
P.B. 73	5b	NCPS2023/312	Tapas Kumar Nahak	Glacial Lake dynamics and its response to climate variability in Eastern Himalaya (1990-2019)
P.B. 74	5b	NCPS2023/332	Rajeev Rajak	Assessment of glacial lakes prone to glacial lake outburst flood using multi-criteria decision analysis (MCDA) in Changme Khangpu basin, Sikkim Himalaya, India
P.B. 75	5b	NCPS2023/337	Deva Jefflin A R	Estimation of Accumulation Area Ratio of Mulkila glacier, Bhaga basin using ELA and pixel based approaches
P.B. 76	5b	NCPS2023/349	Joshal Kumar Bansal	Application of Machine Learning Techniques combined with the Stumpf model for bathymetry extraction and GLOF modelling at Drang Drung Glacial Lake, Ladakh, India
P.B. 77	5b	NCPS2023/369	Bisma Yousuf	Mass balance sensitivities of the Gangotri glacier, central Himalaya
P.B. 78	5b	NCPS2023/396	Robi Routh	Preliminary mapping of Rock glacier in Chandra Basin, Western Himalaya, India, using High-Resolution Google Earth Imagery and Sentinel Data
P.B. 79	5b	NCPS2023/398	Nita Roy	Impact of rainfall on enhanced melting and solute export in the glacierized basin, Central Himalaya, India

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Venue: Auditorium Basement

Board No.	Session No.	Registration No.	Presenter Name	Abstract Title
P.B. 80	5b	NCPS2023/402	Vivek Kumar	Study Land surface and Sea Surface Temperature Dynamics in Amundsen Bay Area, Antarctica for the year 2017 - 2018
P.B. 81	5b	NCPS2023/404	Varun Khajuria	Quantification of Glacier Ice Thickness and Volume in the Zaskar Basin of Western Himalaya via Modelling Techniques
P.B. 82	5b	NCPS2023/409	Tarang Patadiya	A Decadal Analysis of Snow and Glacier Melt Runoff over Parbati Sub-Basin Using Temperature Degree-Day Approach
P.B. 83	5b	NCPS2023/150	Deepak Yuvraj Gajbhiye	Long term trend of Dakshin Gangotri glacier snout, Schirmacher Oasis, East Antarctica
P.B. 84	5b	NCPS2023/155	Kavita V. Mitkari	Object-Based Image Analysis for Discrimination of Glacier Surface and Non-Glacier Surface Classes: A Case Study of Chhota Shigri Glacier
P.B. 85	5b	NCPS2023/191	Sagar F. Wankhede	The pixel, the method, the map: Testing the reliability of facies mapping using very high-resolution satellite data
P.B. 86	5b	NCPS2023/218	Sagar F. Wankhede	How can we map blue ice in Antarctica using satellites?
P.B. 87	5b	NCPS2023/231	Purushottam Kumar Garg	Influence of debris on mass balance, extent, velocity and surface morphology evolution at Companion Glacier, Central Himalaya
P.B. 88	5b	NCPS2023/373	Pawan Kumar	Application and potential of AMS based Radiocarbon Dating from Aeolian and Lacustrine Deposits for Reconstructing Quaternary Glaciation in the Himalaya

5a Cryospheric Processes and Variability

5b Glacier dynamics, processes and glacio-hydrological responses



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### 6. Sea ice Variability and modelling

Board No.	Session No.	Registration No.	Presenter Name	Abstract Title
P.B. 89	6a	NCPS2023/90	Ahammed Shereef MS	Barotropic and baroclinic tides on the shelf off Svalbard and their role in shelf-fjord exchange
P.B. 90	6a	NCPS2023/244	Juhi Yadav	Investigating the Role of Atmospheric Forcing on the Unprecedented Decline of Antarctic Sea Ice in February 2022
P.B. 91	6a	NCPS2023/280	Swathi M	Spatiotemporal Evolution of Sea Ice and Its Teleconnections with Large-Scale Climate Indices over Antarctica
P.B. 92	6a	NCPS2023/325	Ajay B	Thermodynamic evolution of sea ice near Indian Antarctic research station Bharati
P.B. 93	6a	NCPS2023/217	Kshitija Suryawanshi	Recent changes in Antarctic sea ice cover modulated by ocean-atmospheric warming
P.B. 94	6a	NCPS2023/210	Babula Jena	Open ocean polynyas in the Weddell Sea, Southern Ocean
P.B. 95	6a	NCPS2023/377	Suraj Ravindran	Exploring the halocline and sea-ice variability over the Arctic Ocean using CMIP6 simulations
P.B. 96	6a	NCPS2023/413	Ghetiya Satyeshkumar Girdharbhai	Sea ice characterisation using multi polarisation RISAT-1A SAR data
P.B. 97	6a	NCPS2023/482	Ramakant Prasad	Analyzing Sea Ice Variability and Dynamics in the Weddell Sea of Antarctica: A Comprehensive Study
P.B. 98	6b	NCPS2023/254	Mayank Pandey	Forecasting and Analysis of Seasonal Arctic sea ice variability using ML/DL Techniques
P.B. 99	6b	NCPS2023/447	Ananthu Pradeep	Impact of Atmospheric Heat Flux and Ocean Vertical Processes on the Interannual Variability of Sea Ice and Sea Surface Temperature in the Antarctic Ocean.

6a Sea ice variability and dynamics through time and space

6b Sea-ice modelling and observations