

Sub-theme 4
Ocean Observations, Processes and Modelling
Session 1 Time & Date: 14:00- 15:30 IST, 27 February 2024
Oral presentations: 5; Poster+Flash presentations: 8; Poster presentation: 5

Oral presentation

Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/173	Biogeochemistry of northern Indian Ocean using Bio-Argo float data	T V S Udaya Bhaskar	Ch. Chiranjivi Jayaram, J Pavan Kumar, R U V N Satish
2	WOSC/2024/ABS/166	A review of mechanisms controlling the summer monsoon upwelling system off the Somali coast during summer monsoon	Abhisek Chatterjee	
3	WOSC/2024/ABS/114	Higher-trophic fish and macrobenthos biomass models suitability	V. Vijith	Ute Daewel, Hoa Nguyen
4	WOSC/2024/ABS/186	Need of high-resolution oxygen profiles from the eastern Arabian Sea	Sudheesh V	GVM Gupta
5	WOSC/2024/ABS/373	Interannual Variability of Low-salinity Plume in the Southeastern Arabian Sea during winter monsoon	Soumya Mukhopadhyay	Abhisek Chatterjee, Francis P. A.

Poster+ Flash

Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/32	Seasonal and Long-term Variability of SST in the Arabian Sea	Pavas Kumar	
2	WOSC/2024/ABS/111	Demarcating the long lived and short lived eddies in the Eastern Arabian Sea	MIDHILA VARNA V	Jithin Abraham K, Francis PA
3	WOSC/2024/ABS/113	Assessment of the evolution of sediment plumes along the southwest coast of India using satellite observations	V. A. Abhishek	V. Vijith, K. S. Krishnamohan, S. R. Shetye
4	WOSC/2024/ABS/156	Temporal Variability of Oceanic Fronts and their influence on Acoustic Propagation in the Southeast Arabian Seas.	Hasna Kunjumon	M.C. Sanjana
5	WOSC/2024/ABS/187	Development of pCO ₂ algorithm and its Spatiotemporal variability in South-east Arabian Sea using Remote sensing and In-situ Datasets	Anjana Jayaprakash	R.K. Sarangi
6	WOSC/2024/ABS/270	Evolution of the thermohaline structure in South eastern Arabian Sea during winter	Ajay Krishna S	P K Saji, K Rajith
7	WOSC/2024/ABS/308	Influence of Atmospheric Heat-Flux in the Northern Arabian Sea surface chlorophyll Bloom	Adith V.B	V.P. Akhil, V. Sanil Kumar
8	WOSC/2024/ABS/399	Hydrography and circulation in the southeastern Arabian Sea during winter	Adithya S	K. Rajith, Subeesh M P

Poster

Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
------------------	---------------------	-----------------------	--------------------	------------------------

1	WOSC/2024/ABS/394	CMIP5 model evaluation of Wave Power over the Indian Ocean using COWCLIP 2.0 datasets	Anshu Yadav	Prashant Kumar, Rajni
2	WOSC/2024/ABS/194	Sub littoral Seaweed flora of St.Martin's Island, Bangladesh	Syntheia Towhidy	Al Mujaddedi Al Fasani
3	WOSC/2024/ABS/388	The Role of Co-operation in Oceans and Marine Environments	Sivaraman	
4	WOSC/2024/ABS/473	Study of long term changes in Car Nicobar Island using DInSAR and Remote Sensing	Saranya Paramasivam	K. Vani Professor, Tune Usha, V. Ramanathan
5	WOSC/2024/ABS/484	Interannual Variability of Dissolved Oxygen in the Northern Gulf of Mexico Hypoxic Zone	R. Deepa	Suchithra Sundaram

Sub-theme 4
Ocean Observations, Processes and Modelling
Session 2 Time & Date: 11:30- 13:00 IST, 28 February 2024
Oral presentations: 6; Poster+Flash presentations: 7; Poster presentations: 0

Oral

Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/366	Is Ballast Hypothesis valid in the Bay of Bengal?	V.V.S.S. Sarma	
2	WOSC/2024/ABS/93	How important Ocean observations for weather and Climate Predictions?	Suryachandra A Rao	Maheshwar Pradhan
3	WOSC/2024/ABS/100	Modeling Ocean Diurnal Cycle and its Scale Interaction to Longer Scale Climate Variabilities	Maheswar Pradhan	Suryachandra A. Rao, Amitabh Bhattacharya
4	WOSC/2024/ABS/297	The effect of the variability of wind forcing on ENSO simulation in an OGCM: case of canonical and protracted event	Anika Arora	
5	WOSC/2024/ABS/303	Days to season forecasts of Indian Ocean features from daily initialized NCMRWF coupled model	Ankur Gupta	Akhilesh K. Mishra
6	WOSC/2024/ABS/334	Ocean Forecasting in Extended Range Prediction System at NCMRWF	D. K. Mahapatra	D. G. Nagarjuna Rao, Imran Ali, John P. George, V.S. Prasad

Poster+Flash

Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/155	Downscaling CMIP6 Earth System Global Climate Models' winds for the Indian Ocean	Prasanna Kanti Ghoshal	A.P. Joshi, Kunal Chakraborty
2	WOSC/2024/ABS/153	Projection of Physical Characteristics of Extreme Rainfall Events during the Indian Summer Monsoon Using CMIP6 Models	Stella Jes Varghese	Sreenivas Pentakota, T Pushpalatha, P Gopi Krishna, Karumuri Ashok
3	WOSC/2024/ABS/287	Deep Learning techniques for the prediction of Ocean currents for underwater vehicles	Shaik Shakeera	V B N Jyothi, Hrishikesh Venkataraman
4	WOSC/2024/ABS/292	Missing data imputation in Moored buoy data using Particle swarm optimization -ML Algorithm	Sundar R	Varalakshmi P, Ramasundaram S, Sachin Kumar D
5	WOSC/2024/ABS/298	Oceanic influence on Large-Scale Atmospheric Convection during co-occurring La Nifa and IOD events	Supriya M Ovhal	Mujumdar M, Swapna P, Sreenivas P, Sandeep N, M. Ravichandran
6	WOSC/2024/ABS/453	An ensemble machine learning model for turbidity estimation using Landsat 8 OLI in Chilika Lagoon, India	Murugan Karthick	Palanisamy Shanmugam

7	WOSC/2024/ABS/367	Sensitivity of simulated upper ocean thermohaline structure to diffusivity shape function in MOM5	Soma Mishra	Phani Murali Krishna, Anant Parekh
---	-------------------	---	-------------	------------------------------------

Sub-theme 4
Ocean Observations, Processes and Modelling
Session 3 Time & Date: 14:00- 15:30 IST, 28 February 2024
Oral presentations: 6; Poster+Flash presentations: 8; Poster presentations: 4

Oral presentation

Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/163	Investigation of tide-wave-current interactions off the east coast of India using coupled SWAN+ADCIRC modelling system	K G Sandhya	V Raam Balaji, P L N Murty, P A Francis
2	WOSC/2024/ABS/31	Extreme Wind Waves simulated by Wave Watch III model during land fall of Cyclones in the Bay of Bengal	Srinivasarao Karri	Charan Kumar J, Rajesh S, Nagamani P V, Prakesh C
3	WOSC/2024/ABS/410	Impact of tropical cyclones on the wave activity in the Bay of Bengal, 1979–2019	Sohan Pal Meena	Neetu S, V. Adithyan, Imsangla Imchen
4	WOSC/2024/ABS/170	Implementation of Local Ensemble Transform Kalman Filter based Ocean - Atmospheric coupled data assimilation system for improved analysis quality and predictions	Sreenivas Pentakota	Sreenivas Pentakota, Sagar V Gade, Surya A Rao, Phani Murali Krishna
5	WOSC/2024/ABS/224	Dynamical downscaling of sea level change in the Indian Ocean using ROMS	Prerna Singh	Remya R, CH Sravani, Abhisek Chatterjee
6	WOSC/2024/ABS/52	Genesis of Arabian Sea Mini Warm Pool using a Coupled Numerical Model	Sankar Prasad Lahiri	Vimlesh Pant,K R Prakash

Poster + Flash

Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/78	WAVE AND CURRENT SIMULATIONS DURING CYCLONE TAUKTAE AND YAAS	TREESA DAVIS	
2	WOSC/2024/ABS/73	Hydrodynamic modelling of Pulicate Lake	Sathyamalavika P	M.Krishnaveni, A.Ponmozhi, Tirumaleswara Reddy Nimalidinne
3	WOSC/2024/ABS/138	Analysis and Quality Control of Tide Gauge Data over the Indian Ocean	P SUNEETA	TVS Udayabhaskar , Rama Rao E. Pattabhi and K. Srinivas
4	WOSC/2024/ABS/137	Quality control methods and analysis for Wave Rider Buoy data in the Indian Ocean	M Anuradha	TVS Uday Bhaskar; Venkat R Shesu; E. Pattabhi Rama Rao
5	WOSC/2024/ABS/208	NUMERICAL MODELLING OF FLOOD INUNDATION AND RUN-UP ALONG SELECTED RIVER BANKS OF KERALA	Aswathy Vijayan	Praveen S S
6	WOSC/2024/ABS/213	Impact of river runoff and precipitation on surface pH along the Indian coastline using a high-resolution model	Kunal Madkaiker	A. D. Rao
7	WOSC/2024/ABS/425	Biological nitrous oxide (N ₂ O) consumption in coastal sediments: environmental and biogeochemical drivers	Tanisha Nag	Damodara Rao Valavala, Anitha Gera, M. V. Ramana Murthy, M. Govindaraju

8	WOSC/2024/ABS/370	Comparison of adaptive methods for estimating directional spectra against 2D Fourier Transform using a fully nonlinear wave model	Omar Zain Torres Rios	
Poster				
Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/69	Coastal Hydrodynamics and Sediment Transport Model using MIKE 21	SANJEEVE J	A. PONMOZHI, M. KRISHNANVENI
2	WOSC/2024/ABS/384	Evaluation of wave parameters using moored buoy data with Satellite and ERA-5 Model datasets in the Arabian Sea	R.JANANI	K. Jossia Joseph, C. Anoop Prasad, Prabin K. Kar, Martin V Mathew, M. Kalyani, M. Arul Muthiah
3	WOSC/2024/ABS/397	Prediction of Sea Level Anomaly in the Indian Ocean based on Autoregressive Integrated Moving Average Model	Kamlesh Kumar Saha	Prashant Kumar, Anurag Sigh, Ramakant Prasad, Rajni
4	WOSC/2024/ABS/58	ESTIMATION OF WAVE ENERGY POTENTIAL USING REMOTE SENSING AND GIS	Kayalvizhi S	M Krishnaveni, Sudharson G

Sub-theme 4
Ocean Observations, Processes and Modelling
Session 4 Time & Date: 16:00- 17:30 IST, 28 February 2024
Oral presentations: 6; Poster+Flash presentations: 8; Poster presentations: 0

Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/469	Bay of Bengal Tropical Cyclones: Ocean Observations and Advanced Numerical Modeling	Mohan Kumar Das	Md. Awlad Hossain, Md. Amanullah Rishat, Capuano Tonia Astrid, Sowrav Sheikh Fahim Faysal, Md. Deen Ahmed
2	WOSC/2024/ABS/443	Performance of Moored Buoy Systems during severe Cyclonic Storm Michaung in the Bay of Bengal	M.Arul Muthiah	P.Nirmal Kumar, Jossia Joseph, Janani
3	WOSC/2024/ABS/326	Rapid Intensification of Tropical Cyclone Fani (2019) over the Bay of Bengal using a Convection-Permitting Regional Climate Simulation using WRF	Vivek Singh	Anu Gupta, Rakesh Teja Konduru, Atul Kumar Shrivastava
4	WOSC/2024/ABS/150	Air-Sea interactions associated with tropical cyclones over the Bay of Bengal with special emphasis on Meso-scale Eddies	Gopi Krishna Podapati	Sreenivas Pentakota, Pushpalatha Thadivalasa, Stella Jes Varghese, Anuj Gupta, Karan Kumar Yerrawar
5	WOSC/2024/ABS/330	Role of ocean in recent increase in cyclone frequency over the Arabian Sea	Lokesh Pandey	Ankur Gupta, Akhilesh Mishra
6	WOSC/2024/ABS/432	Multi-band and Multi-scattering epsilon based Atmospheric Correction for EOS-06 Ocean Colour Monitor (OCM3)	Mohammed Suhail	Nagamani PV, Prakash Chauhan
Poster+Flash				
Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/179	Role of physical oceanographic parameters in impacting the cyclogenesis over Indian Ocean	Anuj Gupta	Pentakota Sreeniva
2	WOSC/2024/ABS/368	Impact of Geophysical Parameters on Tropical Cyclogenesis Locations in the Bay of Bengal	Sidha Sankalpa Moharana	Debadatta Swain
3	WOSC/2024/ABS/415	Repeated Harmful Algal Blooms: Insights from continuous monitoring in the Bivalve beds of Malabar Coast, South Eastern Arabian Sea	Minu P	Prabhakaran M P
4	WOSC/2024/ABS/479	OCEAN ACIDIFICATION AND THE FUTURE OF CLAM – Paphia undulata – A STUDY ON IT'S CHARACTERIZATION, COMPOSITION AND PROPERTY	Jaithun Bi . J	Hiba. M., C.M. Noorjahan
5	WOSC/2024/ABS/352	Mechanisms of the Southern Arabian Sea summer Primary Productivity weakening in response to anthropogenic forcing in Earth System Model	Sadhvi Kwatra	Vallivattathillam Parvathi, Matthieu Lengaigne, Jérôme Vialard, Takeshi Izumo, Zouhair Lachkar, Iyyappan Suresh
6	WOSC/2024/ABS/456	Measurement of Microplastics Size Distribution Using a Scanning Electron Microscope	Chavapati Gouse Sandhani	Palanisamy Shanmugam, S.A. Sannasiraj
7	WOSC/2024/ABS/339	Revolutionizing Ocean Observation: Advancing Oceanic Understanding and Conservation through UAV Hyperspectral Remote Sensing	Vimalathitthan Shanmugam	Shanmugam Palanisamy
8	WOSC/2024/ABS/244	Dimethyl Sulfide (DMS) Emissions : Sea water concentration and Sea-Air F	Sankirna D. Joge	Anoop S. Mahajan, Shrivardhan Hulswar

Sub-theme 4
Ocean Observations, Processes and Modelling
Session 5 Time & Date: 11:30- 13:00 IST, 29 February 2024
Oral presentations: 6; Poster+Flash presentations: 6; Poster presentations: 4

Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/92	Summer variability in bio-optical properties and phytoplankton pigment signatures in two adjacent high Arctic fjords, Svalbard	Sarat Chandra Tripathy	Sudarsana Rao Pandi, Sunil Kumar Padhi, Parli V. Bhaskar
2	WOSC/2024/ABS/65	Physical and biogeochemical variability over a decade in an Arctic fjord, and its climate relevance	Divya David T	Subeesh M. P, Teesha Mathew, Renjith V. R, Anilkumar N, M. Ravichandran
3	WOSC/2024/ABS/204	Development of a MOM6 based ocean general circulation modelling framework for the Indian Ocean	Biswamoy Paul	Alan Wallcraft, Abhisek Chatterjee, Sajidh C K, Alexandra Bozec, Afroosa Balkies BAI M, Prerna Singh, Eric Chassignet, Remya R, Francis PA, Sreenivas Pentakota, Balakrishnan Nair, Srinivasa Kumar T
4	WOSC/2024/ABS/106	A thermocline dome located below the stratified waters of the northern Bay of Bengal	N Anup	V. Vijith, P. N. Vinayachandran
5	WOSC/2024/ABS/247	Statistical Analysis of generation, propagation and life cycle of Mesoscale Eddies in the Bay of Bengal using 29 years of sea level data	Anoop K A	P.K.Saji
6	WOSC/2024/ABS/191	Ocean Emitted Natural short-lived halogens exert an indirect cooling effect on climate	Anoop Mahajan	Alfonso Saiz-Lopez; Rafael P. Fernandez; Qinyi Li; Carlos A. Cuevas; Xiao Fu; Douglas E. Kinnison; Simone Tilmes; Juan Carlos Gómez Martín; Fernando Iglesias-Suarez; Ryan Hossaini; John M. C. Plane; Gunnar Myhre; Jean-François Lamarque
Poster+ Flash				
Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/77	ROLE OF SURFACE LAYER TEMPERATURE INVERSION ON SST INDUCED VARIABILITY IN THE BAY OF BENGAL	MALAVIKA	
2	WOSC/2024/ABS/168	Impact of global warming on regional ocean circulation, Air-sea interactions and cyclogenesis over the Bay of Bengal	Pushpalatha Thadivalasa	Pushpalatha Thadivalasa, Gopikrishna Podapati, Sreenivas Pentakota, Anuj Gupta, Karan Kumar
3	WOSC/2024/ABS/278	Presence of eddies in the Bay of Bengal- Is it random or recurring?	JIMNA JANARDHANAN C M	Anand P,Sajeev R
4	WOSC/2024/ABS/369	Wave-surge-tide interactions in the Bay of Bengal	V. Adithyan	S. Neetu, Imsangla Imchen, Sohan Pal Meena
5	WOSC/2024/ABS/390	Identification and Characterization of Marine Heat Waves over the Bay of Bengal	Abhinash Kumar	Sthitapragya Ray, Debadatta Swain
6	WOSC/2024/ABS/452	Seasonal Analysis of Ocean Heat Content in the Ice-covered Arctic Ocean	Kondeti Vijay Prakash	Palanisamy Shanmugam
Poster				
Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name

1	WOSC/2024/ABS/151	Preliminary analysis on ocean acidification prediction using CO ₂ calc and Seacarb in the chosen areas in Palk Strait, Bay of Bengal	M. Rajesh Kumar	PM. Velmurugan, S. Sundararajan, Subham Chakraborty, R.Jeeva Priya
2	WOSC/2024/ABS/215	Barotropic and baroclinic tides on the shelf off Svalbard and their role in shelf-fjord exchange	Ahammed Shereef MS	Nuncio Murukesh, Subeesh MP, Teesha Mathew, Divya David T, Sourav Chatterjee
3	WOSC/2024/ABS/242	The influence of winds and tides over a lagoon and semi-enclosed estuary along the southeast coast of India	Killampalli Rajesh	Kunal Madkaiker, A D Rao
4	WOSC/2024/ABS/283	An analysis of the seasonal variations in sea surface temperature (SST) and their impact on the marine environment in the Bay of Bengal	Md. Golam Maola	Cdr Kamrul Ahsan

Sub-theme 4
Ocean Observations, Processes and Modelling
Session 6 Time & Date: 14:00- 15:30 IST, 29 February 2024
Oral presentations: 6; Poster+Flash presentations: 8; Poster presentations: 4

Oral presentation

Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/135	Wind-driven bottom current in the equatorial Indian Ocean	P. Amol	V. Jain, S. G. Aparna
2	WOSC/2024/ABS/116	Impact of the extreme Indian Ocean Dipole 2019 on Equatorial Indian Ocean circulation	Srinivas G	Amol P, Arnab Mukherjee
3	WOSC/2024/ABS/105	The interplay between prolonged La-Nina events and the Indian Ocean Dipole: Role of coupled ocean-atmosphere processes	Ankur Srivastava,	Maheswar Pradhan, Suryachandra A. Rao
4	WOSC/2024/ABS/279	Role of local winds and remote forcing in Coastal Upwelling along the West coast of India	Bhavesh kuli,	Debadatta Swain, Sthitapragya Ray
5	WOSC/2024/ABS/90	Monitoring and Assessment of low frequency sound in Arabi	Sanjana M C	Latha G, Thirunavukkarasu A, Raguraman G
6	WOSC/2024/ABS/337	Climate-Induced Ecological Dynamics in Coringa Mangrove Ecosystem: A Hydro-Ecological Model Analysis	Pearlin Sam Jinoj T	Panda U S,Ramana Murthy M V

Poster+ Flash

Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/225	A STUDY ON EVALUATION OF THE OCCURRENCES OF	Athul C R	Jayakumar Seelam
2	WOSC/2024/ABS/34	Upper Indian Ocean Warming Trend and its Regional Variability	Swathy A R	
3	WOSC/2024/ABS/188	Drivers of the Indian summer monsoon variability: A comparison between Early Twentieth Century and Present warming periods	Suchithra Sundaram	G. Latha
4	WOSC/2024/ABS/299	Application of machine learning techniques for estimating ocean mixed layer depth	Imsangla Imchen	S. Neetu,V. Adithyan, Sohan Pal Meena
5	WOSC/2024/ABS/285	Observed currents off the coast of Rameswaram island	Ranjan kumar Sahu	P. Amol, D.Shankar, J. Singh, V. Sanil Kumar, P.Mehra, Y. Agarwadekar
6	WOSC/2024/ABS/277	Annual cycle of dissolved oxygen associated with the variability of salinity and water hyacinths in the Cochin estuary.	I. P. Safin	V. Vijith, R. Sajeev
7	WOSC/2024/ABS/317	Variations in the Oxygen Minimum Zone and carbonate chemistry of the Eastern Arabian Sea since the last 15 kyr	Niharika Panigrahi	Sushant S. Naik
8	WOSC/2024/ABS/422	Performance of SMAP sea surface salinity during extreme conditions using moored observations in the Bay of Bengal and Arabian Sea	B.Kesavakumar	P.Shanmugam, M.Arul Muthiah

Poster

Serial No	Abstract Num	Abstract Title	Author Name	Co-Authors Name
1	WOSC/2024/ABS/340	Observations on upwelling in the southeastern Arabian Sea during the post-monsoon season	Anoopa Prasad C	Martin V. Mathew,Jossia K Joseph, Rohith B, Arul Muthiah M
2	WOSC/2024/ABS/371	Decadal Variability of Coral Bleaching in the Lakshadweep Sea: Influence of Extreme Climate Events	Arya P Kumar	Anu Gopinath, Phiros Shah
3	WOSC/2024/ABS/64	ASSESSMENT OF MORPHOLOGICAL CHANGES ALONG THE KANYAKUMARI COAST	Bhuvana E	M. Krishnaveni, Sudharson Gopal