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CENTRE NATIONAL D'ÉTUDES SPATIALES

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esa
European Space Agency

→ 2018 OCEAN SALINITY SCIENCE CONFERENCE

6–9 November 2018 | Sorbonne University | Paris, France

PROGRAMME

DAY 1 Tuesday 6 November 2018

08:30	**Registration and Welcome Coffee**	
09:20	Introduction/Context	J./G. Boutin/Reverdin - LOCEAN
09:50	ESA views	S. Mecklenburg - ESA
10:00	CNES views	Y. Kerr - CNES
10:10	NASA views and OCEANOBS	N. Vinogradova - NASA HQ
	1. Observing ocean salinity	
10:40	Sea Surface Salinity measurements from Spaceborne L-band radiometer data: an overview of the first decade of observation (2009–2019)	N. Reul - LOPS/IFREMER
11:10	The RSS/NASA SMAP Salinity Version 3 Release	T. Meissner - Remote Sensing Systems
11:30	The JPL SMAP Sea Surface Salinity Data product	A. Fore - JPL
11:50	Error characterization of Sea surface salinity products using triple collocation analysis	N. Hoareau - CSIC
12:10-13:10	Lunch	
13:30	SMOS Pi-MEP Salinity: A collaborative platform for validation and exploitation of ESA SMOS data over ocean	R. Sabia - Telespazio-Vega
13:50	Status of the SMOS Pilot-Mission Exploitation Platform (Pi-MEP)	S. Guimbard - OceanScope

14:10	Novel SMOS CATDS salinities: comparison with in situ and SMAP products	D. Khvorostyanov - LOCEAN
14:30	L-band Seawater Dielectric Model Function and Its Application on SSS Retrieval	Y. Zhou - The George Washington University
14:50	SMOS Measurements and L-band Dielectric Constant	J. Boutin - LOCEAN
15:10-15:40	Break	
15:40	Variability of Satellite Sea Surface Salinity Under Rainfall	A. Supply - LOCEAN
16:00	Bay of Bengal Salinity Variability from SMOS and SMAP	V. Parambil Akhil - CSIR-NIO
16:20	SMAP/SMOS observations of unusual wintertime intrusions of salty/fresh water into the Gulf of Maine	S. Grodsky - UMD
16:40-17:10	Break	
17:10-19:00	**POSTERS/PI-MEP demo**	

DAY 2 Wednesday 7 November 2018

2. Process-based insights from field observations		
09:00	The Physics of Surface Salinity and Precipitation and Its Impact on Satellite Retrievals	J. Schanze - Earth & Space Research
09:30	Vertical gradients in horizontal variability from the tropics to sub-tropics	W. Asher - APL-UW
09:50	Formation and evolution of rain-formed fresh lenses	K. Drushka - University of Washington
10:10	Freshwater Lenses in the Near-Surface Layer of the Ocean Produced by Convective and Stratiform Rains	A. Soloviev - HCNSO
10:30	The effects of rainfall on the atmosphere and ocean during SPURS-2	C. A. Clayson - Woods Hole Oceanography Institution
10:50-11:20	Break	
11:20	Adaptive Sampling of Rain and Ocean Salinity from Autonomous Seagliders	L. Rainville - APL-UW
11:40	A Drop in the Ocean: Mixed Layer Observations From a Vertical Profiler	A. Ten Doeschate - NUI Galway
12:00	Surface Salinity and Its Impact in the Eastern Indian Ocean and Maritime Continent	K. Richards - IPRC
12:20	Sea Surface Salinity signature of the tropical Atlantic interannual climatic modes	M. Awo - LEGOS
12:40	Evolution of the subsurface salinity maximum of the Loop Current eddies from glider observations and numerical modeling	E. R. Sosa Gutierrez - CICESE
13:00-14:00	Lunch	

3. Ocean dynamics and salinity assimilation in ocean models		
14:00	Assimilating satellite sea surface salinity data from SMOS, Aquarius and SMAP into the FOAM global ocean forecasting system	M. Martin - Met Office
14:20	Impact of Assimilating SSS SMOS Data in an Ocean Forecasting System During El-Niño2015	B. Tranchant - CLS
14:40	Impact of Aquarius and SMAP Sea Surface Salinity Observations on Coupled ENSO Forecasts	E. Hackert - GMAO/NASA
15:20	SMOS Sea Surface Salinity contribution to the Land-Marine Boundary Development and Analysis (LAMBDA) project	E. Olmedo - Institute of Marine Sciences
15:00	Developing a protocol for reconstructing the AMOC in the historical period using surface data	V. Estella Perez - LOCEAN
15:20-15:50	Break	
15:40	Intraseasonal Variability of Surface Salinity in the Eastern Tropical Pacific associated with Mesoscale Eddies	A. Hasson - LOCEAN
16:00	Impact of Horizontal Salinity Gradients on the Bay of Bengal Circulation and Mesoscale Variability	M. Girijakumari Keerthi - LOCEAN
5. Biogeochemistry		
16:20	Salinity and chlorophyll-a concentration Surface Signatures of the super-convergence pathway from the Subtropical Indian to Pacific Ocean gyres	C. Maes - LPS/IRD
16:40	Relationship between Sea Surface Salinity and pCO_2	D. Ho - University of Hawaii
17:00	Linking water and carbon cycles at ocean surface	W. T. Liu - JPL
17:30-19:00	**SISS WG meeting (ESA programme for SMOS 10 years, Oceanobs and ESA-NASA collaboration)**	

DAY 3 Thursday 8 November 2018

4. Global freshwater cycle and climate variability		
09:00	Maritime Continent Water Cycle Regulates Low-latitude Chokepoint of Global Ocean Circulation	T. Lee - NASA JPL
09:30	Observed Interannual to Decadal Variability of Indian Ocean Salinity and the role of Indonesian Throughflow	S. Hu - Chinese Academy of Sciences
09:50	Imprint of the Hadley Cell Expansion on the Atlantic Surface and Subsurface Salinity Maxima	L. Yu - Woods Hole Oceanographic Institution
10:10	Variability of Barrier Layer in the Equatorial Pacific associated with ENSO	H. Liu - Shanghai Jiao Tong University
10:30	The Surprising Skill of Sea Surface Salinity in Seasonal Prediction of Precipitation on Land	R. Schmitt - Woods Hole Oceanographic Institution
10:50-11:20	Break	
11:30	Improved Estimates of Water Cycle Change from Ocean Salinity: the Key Role of Ocean Warming	N. Skliris - University of Southampton
11:40	Investigating Forced Ocean Change Using a Neutral Density Framework	Y. Silvy - LOCEAN
12:00	Understanding Remote Influences On Global Salinity Change Through Lagrangian Particle Tracking	S. Levang - MIT
12:20	Volume Trends in the Upper Ocean Waters from a gridded ARGO Product	E. Portela - Ifremer

12:40-14:00	Lunch	
14:00	Freshwater Transport Along the Pathway of the North Atlantic Current at 47°N	I. Stendardo - University of Bremen
14:20	Variability and impacts of surface freshwater in the North Atlantic	M. Oltmanns - Geomar
14:40	Decadal Variability of SSS, SST and Surface Water Density in the North Atlantic Subpolar Gyre: A 120-year Historical Data Set	A. Friedman - University Of Edinburgh
6. Surface freshwater fluxes, run off, and sea ice		
15:00	Changing Air-Sea Freshwater Fluxes and Ocean Salinity: From Wet gets Wetter to the Big Fresh Blob	S. Josey - NOC
15:20-15:50	Break	
15:50	Bay of Bengal freshwater transport, and its modulation by the Indian Ocean Dipole and eddies	A. V. Sai Chaitanya - IISc-NIO-IITM–IRD Joint International Laboratory
16:10	Characterization of NIGER and CONGO RIVER PLUMES in the GULF of GUINEA	O. J. Houndegnonto - LOPS
16:30-18:30	**POSTERS/PI-MEP demo**	
19:30-23:00	Social Event at Maison des Oceans	

DAY 4 Friday 9 November 2018

6. Surface freshwater fluxes, run off, and sea ice		
09:00	Exploring the Synergy of Sea Surface Salinity, Sea Surface Height and Ocean Bottom Pressure to Study Arctic Ocean Freshwater Changes	S. Fournier - JPL
09:20	The freshwater cycle of the Southern Ocean: A stable water isotopes approach	C. Akhoudas - LOCEAN
10:00	Southern Ocean Freshwater Sources Inferred From Oxygen Isotope Data	A. Haumann - Princeton University
10:40	25-year Surface Salinity changes near 140°E between Australia and Antarctica	R. Morrow - Legos
10:20-10:50	Break	
7. Challenges and requirements for future salinity observing, remote sensing and in situ		
10:50	Characterizing the Extent, Shape, and Location of the Beaufort Gyre in the Canadian Basin of the Arctic Ocean From Satellite Data Between 2003-2014	H. Regan - Ifremer
11:10	Future Salinity Observation from Space	S. Brown - JPL
11:30	CIMR: a new low frequency microwave radiometer for an all-weather, high spatial resolution and accurate estimation of ocean and sea-ice parameters	L. Kilic - Lerma

12:10	A 0.5-2 GHz microwave radiometer to measure SSS in polar areas: from first experiments to a satellite mission concept	A. Bringer - The Ohio State University
12:30	Demonstration of a Next Generation Active/Passive Microwave Instrument for All-temperature Salinity, Sea Surface Temperature and Wind Measurement	S. Misra - JPL
12:30-13:40	Lunch	
13:40	The Update to L-Band Geophysical Model Function for SSS Retrieval Using SMAP Data with Improved Radiometric Calibration	S. Yueh - JPL
14:00	Regional studies of surface salinity subfootprint variability	F. Bingham - University Of North Carolina Wilmington
14:20-16:00	**Discussion**	
16:00	End of meeting	

POSTERS

1. Observing ocean salinity		
1	Novelties in the L1 Processor for the SMOS Third Mission Reprocessing and the Consequences on L2 SSS Retrievals	R. Oliva - ESA
2	A New Strategy for SMOS OTT Computation	F. D'Amico - LOCEAN
3	L-band Dielectric Constant Models in SMOS mission	J. Martinez - Barcelona Expert Center
4	The CATDS, the French Ground-Segment Facility in Charge of the SMOS Level 3 and Level 4 Science Products	S. Tarot - Ifremer
5	Understanding Sea Surface Salinity as new Climate Change Variable	R. Catany - Argans
6	Uncertainty characterization of SSS from space missions in the context of the CCI+ SSS project	J.-l. Vergely - Acri-st
7	Singularity Power Spectra: A method to assess geophysical consistency of gridded products - Application to sea surface salinity remote sensing maps	N. Hoareau - CSIC
8	Mesoscale Sea Surface Salinity in the Algerian Basin observed through SMOS and ABACUS glider data	G. Aulicino - Università Politecnica delle Marche
9	Sea Surface Salinity and Temperature in the Southern Atlantic Ocean from South African Icebreakers, 2010-2017	G. Aulicino - Università Politecnica delle Marche
10	SMAP and CalCOFI Observe Freshening During the 2014-2016 Northeast Pacific Warm Anomaly	J. Vazquez - JPL

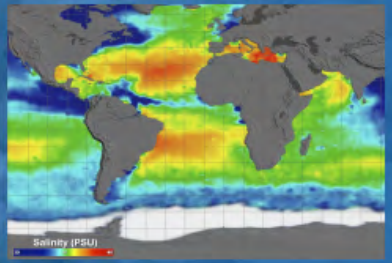
11	Resolving SSS from basin scale to mesoscale: a SMOS/SMAP Optimal Interpolation	N. Kolodziejczyk - University of Brest
12	The French contribution to the Voluntary Observing Ships network of Sea Surface Salinity	G. Alory - Legos
13	SSS delayed mode In Situ Measurements from French Research Vessel and Voluntary Observing Sailing Ships	T. Reynaud - Ifremer LOPS
14	Temperature and Salinity Drift in Sea-Bird Moored SBE37 CTDs	K. Martini- Sea-bird Scientific
15	An in-situ drifting buoy platform is under development to provide continuous and extended-duration monitoring of near-surface salinity (12 cm depth), near-surface temperature (3 cm depth) and directional sea state parameters (i.e., significant wave height, peak spectral period and mean wave direction)	J. Boyle - Western Connecticut State University
16	Salinity Variations and its impact on Stratification in the Southern Basin of the Caspian Sea, Iranian Coasts	S. Jamshidi - INIOAS
2. Process-based insights from field observations		
17	Statistical models of air-sea interaction and surface salinity during SPURS-1 and 2	F. Bingham - University Of North Carolina Wilmington
18	Global atlas of instantaneous Rossby waves obtained by multiscale processing of L4 SMOS SSS maps	A. Turiel - Institute of Marine Sciences
19	High-Resolution Observations of Fresh Lenses from Autonomous Vehicles	B. Hodges - Whoi
20	Observations of the near-surface salinity stratification in the Pacific Ocean with dual-sensor Lagrangian drifters	D. Volkov - NOAA-AOML

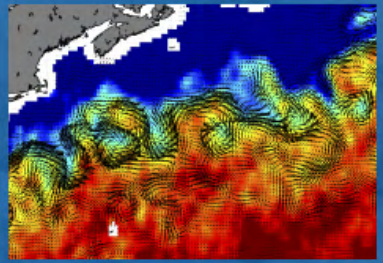
3. Ocean dynamics and salinity assimilation in ocean models		
21	The Path to Operational Satellite Sea-surface Salinity Data Assimilation at NOAA	E. Bayler - NOAA-NESDIS
22	A Preliminary SSS Assimilation Experiment Into HYCOM With the REMO Ocean Data Assimilation System	C. Tanajura - UFBA
23	Impact of Satellite Sea Surface Salinity Observations on ENSO Predictions from the GMAO S2S Forecast System	E. Hackert - GMAO/NASA Goddard
24	Observation Impact Statement on SSS data assimilation in two global operational ocean forecasting systems	E. Remy - Mercator Ocean
25	Eddy contribution to salinity changes in a North Atlantic simulation	J. Köhler - Institute of Oceanography
26	Generation, Evolution and Fate of Tropical Atlantic Barrier Layers and Their Large-scale Impact	A. Saha - Institute of Oceanography
27	Satellite-based estimation of water masses formation rates and areas	A. Piracha - ESA
28	Boreal spring equatorial Sea Surface Salinity as a potential predictor of Atlantic Cold Tongue events	C. Da-Allada - LOPS
29	Anatomy of salinity variability associated with the Indian Ocean Dipole	S. Kido - University of Tokyo
30	Proof of Concept of the Relevance of Satellite-derived SSS for Climate and Oceanographic Studies: The Case of Superficial Heat Content	M. Arias - ARGANS Ltd
31	Towards a better characterization of ocean currents using SSS satellite information	M. Umbert - ICM CSIC

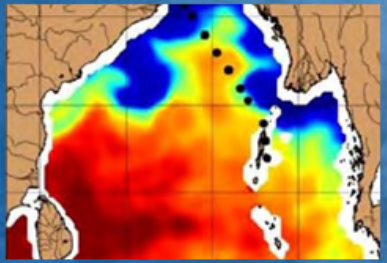
4. Global freshwater cycle and climate variability		
32	Is there an effect of Bay of Bengal salinity on the Northern Indian Ocean Climate?	KS Krishnamohan - UPMC
33	Annual to interannual subtropical sea surface salinity variability inferred from different data sources and reanalysis products	M. Sena Martins - Institute of Oceanography
34	Projected Salinity Changes Under Global Warming Conditions	A. Sathyanarayanan - University of Hamburg
5. Biogeochemistry		
35	Potential Salinity Signature To Trace Shallow Submarine Sources of Iron in the Western Tropical South Pacific	C. Guieu - LOV CNRS
36	Salinity Influences On Coastal Area In Bangladesh Due To Sea Level Rise	Md. Mizanur Rahman - East West University
6. Surface freshwater fluxes, run off, and sea ice		
37	The Potential and Challenges of Using SMAP SSS to Monitor Arctic Ocean Freshwater Changes	W. Tang - JPL
38	Ice Thickness Estimation Using Water Salinity Flux In the Franklin Bay	S. Nahavandian E. - Tarbiat Modares University
39	Impact of Interannual Runoff on Salinity and Stratification in the Bay of Bengal	F. T. Shahul Hameed - University Of Hyderabad
40	Evaluation of Satellite based Penetrative Radiant Flux Model in Indian Ocean	P. Kumar - Jamia Millia Islamia

7. Challenges and requirements for future salinity observing, remote sensing and in situ		
41	Sea Surface Temperature Dependent Bias in Aquarius and SMAP SSS Retrievals	D. Le Vine - Goddard Space Flight Center
42	Tools, Services & Support of NASA Salinity Mission Data Archival Distribution through PO.DAAC	V. Tsontos - NASA/JPL
43	A Fast and Sensitive Interferometer to Measure Absolute Salinity	R. Schmitt - Woods Hole Oceanographic Institution
44	Improving the Traceability of Ocean Salinity Data to a Long-Term Stable Reference by Employing the Optical Index of Refraction Method	C. Waldmann - University of Bremen

notes:







aquarius

smos

smap