

Program of the 2022 Ocean Salinity Conference
6-9 June 2022, Columbia University, New York, New York, USA

Day 1, 6 June 2022

08:50-09:00	Welcome and logistics	
09:00-10:40	Oral presentations (Chair: Tony Lee) <i>* indicates invited talks (v) indicates virtual talk</i>	
09:00-09:20	Nadya Vinogradova-Shiffer NASA Headquarters	*Overview of NASA Ocean Salinity Science Team activities
09:20-09:40	Roberto Sabia European Space Agency - ESRIN, Frascati, Italy	*Overview of ESA salinity science/technology
09:40-10:00	Susan Wijffels Woods Hole Oceanographic Institution	*Tracking global ocean salinity through in situ observations: achievements and challenges
10:00-10:20	Arnold Gordon Lamont-Doherty Earth Observatory of Columbia University	*Changing surface layer salinity, and where it matters most
10:20-11:00	Break	
11:00-12:30	Oral presentations (Chair: Tony Lee)	
11:00-11:20	Jérôme Vialard Institut de Recherche pour le Développement (IRD)	(v)*The Bay of Bengal as a natural laboratory to study salinity variability and its impacts
11:20-11:40	Janet Sprintall Scripps Institution of Oceanography, University of California, San Diego	*Salinity Stratified Barrier Layers in the Upper Ocean
11:40-11:55	Severine Fournier Jet Propulsion Laboratory	*Ocean salinity, a key parameter to study land-sea linkages and river plumes
11:55-12:10	Manon Gévaudan LEGOS, Toulouse, France	(v) Influence of the Amazon-Orinoco discharge interannual variability on the western tropical Atlantic
12:10-12:25	Shota Katsura, Scripps Institution of Oceanography, University of California, San Diego	Barrier Layers and Temperature Inversions in the Eastern Pacific Fresh Pool and Their Impact on the Heat and Freshwater Balance
12:25-14:00	Lunch	
14:00-15:00	Oral presentations (Chair: Jacqueline Boutin)	
14:00-14:15	Elizabeth Thompson NOAA Physical Sciences Lab	(v) Bridging satellite and in-situ scales of rain-induced near-surface salinity stratification
15:15-14:30	Suneil Iyer University of Washington Applied Physics Laboratory and School of Oceanography	The influence of preexisting stratification and tropical rain modes on the mixed layer salinity response to rainfall

14:30-14:45	Lisa Gassen Institute for Chemistry and Biology of the Marine Environment (ICBM), Carl von Ossietzky University of Oldenburg, Wilhelmshaven, Germany	(v, pre-recorded video) The effect of rain on the sea surface
14:45-15:00	Estrella Olmedo Institute of Marine Sciences (CSIC-BEC)	(v) Evidence of large areas of stratified waters in the SMOS Sea Surface Salinity maps
15:00-16:30	Poster session 1	
16:30-17:30	Oral presentations (Chair: Jacqueline Boutin)	
16:30-16:45	Frederick Bingham University of North Carolina Wilmington, Center for Marine Science	Seasonal and Interannual Variability of the South Indian Ocean Sea Surface Salinity Maximum
16:45-17:00	Ebenezer Nyadjro Mississippi State University	(v) Impacts of the 2019 strong IOD and monsoon events on Indian Ocean sea surface salinity
17:00-17:20 (AEST 7am)	Jan Zika University of New South Wales, Sydney (presented by Taimoor Sohail)	(v)*The geographical pattern of water cycle change evident from changes in ocean water masses

Day 2, 7 June 2022

09:00-10:40	Oral presentations (Chair: Severine Fournier) * indicates invited talks (v) indicates virtual talk	
09:00-09:20	Lisan Yu Woods Hole Oceanographic Institution	*Increase of the Atlantic-Pacific Salinity Contrast as the Ocean Water Cycle Intensifies
09:20-09:35	Estrella Olmedo Institute of Marine Sciences (CSIC-BEC)	SO FRESH: The relevance of satellite SSS for study of freshwater fluxes in the Southern Ocean
09:35-09:55	Ray Schmitt Woods Hole Oceanographic Institution and Salient Predictions, Inc.	(v) *Predicting Terrestrial Precipitation with Ocean Salinity
09:55-10:10	Laifang Li Pennsylvania State University	Skillful long-lead prediction of summertime heavy rainfall in US Midwest from sea surface salinity
10:10-10:25	Nicolas Reul IFREMER	(v) Surface Salinity interactions with Storms
10:25-10:40	Lauren Hoffman Scripps Institution of Oceanography	Ocean Surface Salinity Response to Atmospheric River Precipitation in the California Current System
10:40-11:00	Break	
11:00-12:30	Oral presentations (Chair: Severine Fournier)	

11:00-11:20	Christophe Maes IRD-LOPS	(v) River freshwater fluxes and mesoscale dynamics in the South East Asia region
11:20-11:35	Gilles Reverdin LOCEAN	(v) Sea water isotopes, salinity and the freshwater cycle, lessons from a LOCEAN database
11:35-11:50	Aqeel Piracha ICM-CSIC	(v) A material approach to the traditional water mass transformation framework
11:50-12:05	Léa Olivier LOCEAN-IPSL, Sorbonne Université-CNRS-IRD- MNHN, Paris, France	(v) Impact of North Brazil Current rings on surface salinity and air-sea CO ₂ fluxes variability in winter 2020 in the north-western tropical Atlantic
12:05-12:20	Cristina González-Haro Institute of Marine Sciences, CSIC and Barcelona Expert Center	(v) SMOS derived Colored Detrital Matter product in the Black Sea
12:30-14:00	Lunch	
14:00-15:35	Oral presentations (Chair: Fred Bingham)	
14:00-14:20	Eric Hackert NASA/GMAO	(v) *Effect of rain-adjusted Aquarius and SMAP satellite sea surface salinity on ENSO Predictions from the GMAO S2S Forecast System
14:20-14:35	Maya Chung Atmospheric and Oceanic Sciences Program, Princeton University, Princeton, NJ	The role of sea surface salinity in extreme El Niño events
14:35-14:50	Maofeng Liu Rosenstiel School of Marine and Atmospheric Science, University of Miami	(v) The spread of ocean heat uptake efficiency in CMIP6 models traced to ocean salinity
14:50-15:05	Allison Hogikyan Princeton University Atmospheric and Oceanic Sciences Program	Coupling of global water and carbon cycles
15:05-15:20	Subrahmanyam Bulusu School of the Earth, Ocean and Environment, University of South Carolina	Identifying Tidally-generated Internal Waves in Salinity in the Bay of Bengal
15:20-15:35	Gael Alory LEGOS, France	Coastal Upwelling Limitation by Onshore Geostrophic Flow in the Gulf of Guinea around the Niger River Plume
15:35-16:00	Discussion	
16:00-17:30	Poster session 2	

Day 3, 8 June 2022

09:00-10:40	Oral presentations (Chair: Subra Busulu) <i>* indicates invited talks (v) indicates virtual talk</i>	
09:00-09:15	David Le Vine Goddard Space Flight Center	(v) Models for the Dielectric Constant of Sea Water for Remote Sensing of Salinity: A Perspective

09:15-09:30	Thomas Meissner Remote Sensing Systems (presented by Andrew Manaster)	The NASA/RSS SMAP Salinity Version 5 Release
09:30-09:50	Jacqueline Boutin LOCEAN-IPSL/CNRS	*Satellite-based Time-Series of Sea Surface Salinity designed for Ocean and Climate Studies: SMOS and CCI SSS
09:50-10:05	Julian Schanze Earth and Space Research, Seattle, WA, USA	Matching up Satellite and In-Situ Measurements of Surface Salinity: Challenges and Solutions
10:05-10:25	Sebastien Guimbard OceanScope	(v)*Multi-mission satellite salinity evaluation and exploitation platform
10:25-10:40	Nina Hoareau Institute of Marine Science (ICM-CSIC) Barcelona, Spain	(v, pre-recorded video) Sea surface salinity variability and error maps of satellite observations in the Inter Tropical Convergence Zone
10:40-11:00	Break	
11:00-12:30	Oral presentations (Chair: Fred Bingham)	
11:00-11:20	Kyla Drushka Applied Physics Laboratory, University of Washington	*Arctic salinity processes and NASA's upcoming SASSIE experiment
11:20-11:35	Carolina Gabarro Institute of Marine Science & BEC CSIC	(v) Satellite salinity to monitor the freshwater fluxes in the Arctic Ocean
11:35-11:50	Marta Umbert ICM-CSIC	(v) Using remotely observed SSS and colored detrital matter to characterize freshened surface layers in the Kara and Laptev seas during the ice-free season
11:50-12:05	Alexandre Supply University of Brest, LOPS Laboratory, IUEM, UBO- CNRS-IRD-Ifremer, Plouzané, France CNES, Paris, France	Surface salinity drawdown observed with satellite L-Band radiometers when sea ice melts
12:05-12:30	Discussion	
12:30-14:00	Lunch	
14:00-15:30	Oral presentations (Chair: Gael Alory)	
14:00-14:15	Ichiro Fukumori Jet Propulsion Laboratory, California Institute of Technology	(v) Causal Mechanism of Freshwater Content Change in the Beaufort Sea
14:15-14:30	Scott Durski Oregon State University, College of Earth, Ocean and Atmospheric Sciences	Salinity Variability influenced by shelf-interior ocean interactions in the Northeast Pacific and Bering Sea

14:30-14:45	Jorge Vazquez Jet Propulsion Laboratory/California Institute of Technology	Using Saildrones to Validate Arctic Sea-Surface Salinity from the SMAP Satellite: A use case applied to the Y-K Delta
14:45-15:00	Sarah Hall School of the Earth, Ocean and Environment, University of South Carolina, Columbia, SC	Comparison of Surface and Subsurface Salinity within the Arctic and Beaufort Gyre using in situ, satellite and model simulations
15:00-15:15	Oleg Melnichenko International Pacific Research Center, School of Ocean and Earth Science and Technology, University of Hawaii, Honolulu, Hawaii	Aquarius/SMAP OISSS: Global Patterns of SSS Variability from Ten Years of Satellite Data
15:15-15:30	Daling Li Yi International Pacific Research Center, University of Hawai'i	(v) Time and length scales of sea surface salinity variability from satellite observations and high-resolution thermosalinograph data
15:30-16:00	Discussion	
16:00-17:30	Poster session 3	

Day 4, 9 June 2022

09:00-10:40	Oral presentations (Chair: Tony Lee) <i>* indicates invited talks (v) indicates virtual talk</i>	
09:00-09:20	Eric Bayler NOAA/NESDIS/Center for Satellite Applications & Research (STAR)	*Exploitation of Satellite Sea-surface Salinity Observations at NOAA
09:20-09:35	Pingping Xie NOAA/NWS/NCEP Climate Prediction Center	Operational Monitoring of the Global Sea-Surface Salinity and Fresh Water Flux with In Situ and Satellite Observations
09:35-09:50	Elisabeth Remy Mercator Ocean	Ocean surface salinity estimation in Mercator Ocean global analysis: accuracy and plan for future improvements
09:50-10:05	Lee-Lueng Fu Jet Propulsion Laboratory, California Institute of Technology	Potential applications of the SWOT mission to salinity science and applications
10:05-10:20	Nemesio Rodriguez-Fernandez CESBIO	(v) Enhanced spatial resolution of satellite salinity measurements: the SMOS High-resolution mission
10:20-10:40	Shannon Brown Jet Propulsion Laboratory	*SMOS, Aquarius, SMAP... What's Next?
10:40-11:00	Break	
11:00-12:30	Discussion and closing	

Posters

Including in-person posters and virtual posters.

Santha Akella NASA GSFC	Modeling near-surface SST and SSS variability for Data Assimilation and improved Seasonal Predictions
Jesse Anderson Earth & Space Research	Triple collocation analysis for evaluation of satellite salinity
Gael Alory LEGOS, France	The French Sea Surface Salinity Observation Service : 50 Years of Global Observations from Ships of Opportunity
Giuseppe Aulicino Università degli Studi di Napoli Parthenope, Italy	Sea Surface Salinity and Temperature in the Pacific sector of the Southern Ocean during the last two decades
Dhruba Banerjee, Swami Vivekananda Institute of Science and Technology, Kolkata, India	The scenario of Sea surface salinity, Cyclone and the mangrove barrier of Sundarban and the costal part of Bay of Bengal in North India Ocean in last decades
Eric Bayler NOAA/NESDIS/Center for Satellite Applications & Research (STAR)	Satellite Sea-surface Density
Jacqueline Boutin LOCEAN-IPSL/CNRS	Large mesoscale salinity features detected by SMOS and perspectives for next generation missions
Jacqueline Boutin LOCEAN-IPSL/CNRS	CATDS : SMOS L3/L4 products generation and dissemination
James Boyle Western Connecticut State University	Comparison of in-situ measured near-surface salinity and temperature with satellite-derived data products during three North Atlantic Ocean partial transits on vessels of opportunity
Jessica Caughtry ESA	Temporal evolution and scaling properties of Water Mass formation from space
Nan-Hsun Chi Independent Researcher	Joint Analysis of Spatio-Temporal Variability of Salinity and Precipitation in the Eastern Pacific Fresh Pool
Oksana Chkrebti The Ohio State University	Detecting rainfall from sea surface salinity in the eastern tropical Pacific
Rinku Das Assistant Teacher, Baruipur Girls High School West Bengal, India	The effect of tidal influence on the surface water salinity profile which is a potential indicator of climate change in Sagar Island : An important part of Indian Sundarban area
Annette deCharon ODYSEA LLC	What's New on the "NASA Salinity" Website
Alina Dossa UFPE, Brazil & LEGOS, France	Global Analysis of Coastal Gradients of Sea Surface Salinity
Severine Fournier Jet Propulsion Lab	Quantification of Aquarius, SMAP, SMOS and Argo-based gridded sea surface salinity products sampling errors

Aina García Institut de Ciències del Mar, CSIC, Barcelona, Spain	On the optimal data processing of the Soil Moisture and Ocean Salinity measurements
Verónica González-Gambau Barcelona Expert Center & Institute of Marine Sciences, CSIC	Oceanographic added-value of the first regional SMOS Sea Surface Salinity products over the Baltic Sea
Cristina González-Haro Institute of Marine Sciences, CSIC. and Barcelona Expert Center	Exploring synergies between remote sensing products developed under the framework of ESA Baltic+ initiative: Sea Surface Salinity and Sea Level
Virendra Goswami Indian Institute of Technology (IIT) & Environment and Peace Foundation	Physicochemical and spectroscopic methods for Remediation of Water Pollution by Catalytic Oxidants & Development of Climate and Ocean Forecasts Models (COFM).
Semyon Grodsky University of Maryland	Eastward surface salinity features in the Atlantic
Odilon Joël Houndegnonto University of Brest, IRD, CNRS, Ifremer, Laboratoire d'Océanographie Physique et Spatiale (LOPS, UMR 6523), Brest, France	On the formation of thermohaline stratification off Congo River plume
Maria Jacob Central Florida Remote Sensing Lab - University of Central Florida	First Results of the Parametrized Rain Impact Model (PRIM)
Yibo Jiang Jet Propulsion Lab	PODAAC Cloud Support for the NASA Satellite and In-situ Oceanographic Data
Hsun-Ying Kao Earth & Space Research	Validation for SMAP RSS V5.0 Salinity and Salinity Fronts
Yoonji Kim Department of Statistics, The Ohio State University	Comparison of Sea Surface Salinity and Freshwater Forcing accounting for Phase Variability
Nicolas Kolodziejczyk University of Brest, LOPS Laboratory	Variability of the Polar Front in the Barents Sea from L-Band radiometers measurements
Alexander Kurapov NOAA Coast Survey Development Laboratory (NOAA/NOS/OCS/CSDL)	Sea surface salinity (SSS) variability in the offshore waters along the US and Canadian West Coasts
Julia Levin Rutgers University	Modeling study of surface salinity anomalies in the Gulf of Maine using backward dye release experiments
Xinfeng Liang University of Delaware	Interannual Variability of the Mediterranean Overflow Water from 2005 to 2016
Chao Liu University of Delaware	Variability and Changes in Ocean Salinity from Multiple Objective Analysis Products During the Argo Period

Maofeng Liu Rosenstiel School of Marine and Atmospheric Science, University of Miami	The linkages between the hydrological cycle, ocean salinity and transient climate change
Christophe Maes IRD-LOPS	River freshwater fluxes and mesoscale dynamics in the South East Asia region
Andrew Manaster Remote Sensing Systems	SMAP Salinity Retrievals Near the Sea-Ice Edge Using Multi-Spectral Information from AMSR2
Andrew Manaster Remote Sensing Systems	RSS Salinity Continuity Processing System
Marie Montero LOPS (IFREMER/CNRS/IRD/UBO), Brest, France	Towards long-term (2002-present) reconstruction of northern Indian Ocean Sea Surface Salinity based on AMSR-E and L-band Radiometer data
Xunwei Nie First Institute of Oceanography, Ministry of Natural Resources	Decadal Variability in Salinity of the Indian Ocean Subtropical Underwater During the Argo Period
Estrella Olmedo Institute of Marine Sciences (CSIC-BEC)	Ten years of dedicated SMOS Sea Surface Salinity maps in the Black Sea
Xavier Perrot LOCEAN	Sea surface salinity signature of an Agulhas ring from satellite data
Katrin Schroeder CNR-ISMAR, Venezia, Italy	Long term thermohaline changes at depth: examples from two Mediterranean Channels
Richard Justin Small National Center for Atmospheric Research	The Role of Salinity in the Subantarctic Mode Water Formation and Variability
Taimoor Sohail School of Mathematics and Statistics, University of New South Wales, Sydney, Australia	Amplification of historical poleward freshwater transport underestimated by climate reconstructions
Alexander Soloviev Physical Oceanography Laboratory, Nova Southeastern University, Dania Beach, FL	Remote Sensing, In-Situ Observations, and High-Resolution Modeling of Low-Salinity Lenses in the Presence of Oil Slicks
Jingru Sun Princeton University	Influence of vertical wind shear on the ocean response to tropical cyclones
Alexandre Supply University of Brest, LOPS Laboratory, IUEM, UBO–CNRS–IRD–Ifremer, Plouzané, France and CNES, Paris, France	Sea ice variability and stratification over the Arctic Ocean
R Dwi Susanto University of Maryland	Land-sea linkage of peatland soils moisture and salinity in the Indonesian seas
Clovis Thouvenin-Masson LOCEAN-IPSL, CNES, ACRI-ST	Salinity variability in satellite subpixels: toward an interpretation of SMOS – Argo residuals.

Sandra Tippenhauer Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research, Am Handelshafen 12 27570 Bremerhaven, Germany	High-precision calibration of salinity measurements
David Trossman Louisiana State University, DOCS and CCT	(Revised title) An Algorithm to Bias-Correct and Transform Arctic Satellite-Derived Skin Salinities into Bulk Surface Salinities
Vardis Tsontos NASA Jet Propulsion Laboratory, California Institute of Technology	Web-based Tools and Services for Integrated Support of NASA Satellite Salinity and Field Campaigns
Antonio Turiel Institute of Marine Sciences, CSIC/Barcelona Expert Center	SO FRESH: The relevance of satellite SSS for the study of freshwater fluxes in the Southern Ocean
Marta Umbert Institute of Marine Sciences (ICM- CSIC), Barcelona, Spain	The contribution of the Vendée Globe Race to improved ocean surface information. A validation of the remotely sensed salinity in the sub-Antarctic zone
Cristofer Vargas Chaffey College	Spatial Distributions of Ocean Salinity Along the Indian Coasts Using Satellite and In-situ data
Zhankun Wang Northern Gulf Institute, Mississippi State University; NOAA's National Centers for Environmental Information	NCEI Surface Underway Marine Database (SUMD) Initiative
Oliver Wurl University of Oldenburg, Institute of Chemistry and Biology of the Marine Environment	The North Sea from space: Using explainable artificial intelligence to improve satellite observations of salinity and temperature
Simon Yueh Jet Propulsion Laboratory	An Empirical Algorithm for Mitigating the Sea Ice Effect in SMAP Radiometer for Sea Surface Salinity Retrieval in the Arctic Seas