smos & aquarius science workshop

List of events

Announcement Objectives Dedicated Working Groups Themes Organization Committees Participation Abstract Submission Authors Instructions Deadlines On-line registration Travel & Accommodation Contacts Venue Programme

TIME

DAY 1: 15 APRIL

11:00-14:00 Registration Opening session & mission status Chairman: Susanne Mecklenburg 14:00-14:10 Workshop opening and objectives Susanne Mecklenburg, ESA 14:10-14:20 Ocean Salinity Programme at NASA Eric Lindström, NASA 14:20-14:30 Science programme at CNES Juliette Lambin, CNES 14:30-15:00 From SMOS to Aquarius and beyond Yann Kerr, CESBIO 15:00-15:30 Aquarius mission status Gary Lagerloef, Earth & Space Research 15:30-16:00 SMOS mission status from the ocean's perspective Nicolas Reul, IFREMER 16:00-16:10 Working Group Intercalibration: introduction David Levine, NASA 16:10-16:20 Working Group Stratification: introduction Jacqueline Boutin, LOCEAN

	Session 2 Instruments' performance and inter-calibration, algorithm development Chairman: David Levine and Yann Kerr			
16:50 - 17:10) Martin-Neira	Manuel	SMOS Instrument Performance and Calibration After 3 Years in Orbit	
17:10 - 17:30	Cabot	Francois	Intercalibration of SMOS and Aquarius over land, ice and ocean.	
17:30 - 17:50	Bindlish	Rajat	Intercomparison Of Aquarius And Smos Brightness Temperature Observations	
17:50 - 18:10	Macelloni/ Skou	(combined presentation)	Macelloni: L-band brightness temperature at Dome-C Antarctica: intercomparison between DOMEX-3, SMOS and Aquarius data,Skou: DOMECair Campaign in Support of SMOS Calibration	
18:10 - 20:00	ICE BREAKER + PC) STERS	3	
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	DAY 2: 16 APRIL		
9:00 - 9:20	Misra	Sidharth	Development Of On-Earth Brightness Temperature References At L-Band For Characterizing Long-Term Calibration Drifts
9:20 - 9:40	Banks	Chris	Investigating the Temporal Variability in Salinity from Ascending and Descending Passes in SMOS and Aquarius
9:40 - 10:00	Colliander	Andreas	Ocean Reference for SMOS Zero-Baselines Based on Aquarius Brightness Temperature Simulator
10:00 - 10:20	Kainulainen	Juha	Long and short term radiometric stability of SMOS measurements with different NIR front-end models
10:20 - 10:40	Као	Hsun-Ying	Remove the Detectable Errors in Aquarius from Inter-Beam Comparisons
10:40 - 11:00	Turiel	Antonio	New reconstruction algorithms for the improvement of SMOS L1c images: preliminary results
11:00-11:30	Coffee break		
11:30 - 11:50	Tenerelli/ Gourrion	Joseph/ Jerome	Continuing Challenges in Salinity Retrieval for the SMOS Mission & Towards an improved characterization of instrumental biases and forward model errors in SMOS observations over the Ocean
11:50 - 12:10	Yueh	Simon	Aquariusi¦ CAP Ocean Surface Salinity and Wind Products and Their Applications to Water Cycle Research
12:10 - 12:30	Dinnat	Emmanuel	Sea Water Permittivity Model and Differences in Sea Surface Salinity Retrieved from SMOS and Aquarius
12:30 - 12:50	Meissner	Thomas	Recent Developments in the Aquarius Level 2 Salinity Retrieval Algorithm
12:50 - 13:10	Spurgeon	Paul	Evolution and application of the SMOS Level 2 Ocean Salinity Ocean Target Transformation
13:10 - 14:20	Lunch		
	SESSION 3 product validation & stratification		
	Chairman: Jacqueline Boutin and Yi Chao		
14:20 - 14:40	Asher	William	The Effect of Environmental Forcing on the Stability of Near Surface Salinity Gradients in the Ocean
14:40 - 15:00	Drucker	Robert	Comparison of Aquarius sea surface salinity with Argo near-surface salinity
15:00 - 15:20	Ward	Brian	Upper Ocean Profiles of Surface Salinity from the Air-Sea Interaction Profiler

15:20 - 15:40	Reverdin	Gilles	Upper ocean stratification from drifters for SMOS/Aquarius cal-val
15:40 - 16:00	Boutin	Jacqueline	SMOS and in situ salinity: rain and near-surface vertical stratification effects
16:00 - 16:20	Chao	Yi	Upper Ocean Salinity Stratification: Challenges To Validate Satellite Remotely Sensed Sea Surface Salinity
16:20 - 16:40	Coffee break		
16:40-18:15	Working groups on (in parallel)		
	Stratification: Chairman: G. Lagerloef, D. LeVine, Y. Kerr, J. Font and M. Portabella Intercalibration: Chairman: J. Boutin, Y.Chao and Chris Banks		

19:00-22:30	WORKSHOP DINNER		
	DAY 3: 17 April		
9:00 - 9:20	Lagerloef	Gary	Aquarius V2.0 data accuracy assessment and residual errors
9:20 - 9:40	Abe	Hiroto	Evluation of Sea Surfase Salinity observed by Aquarius and SMOS
9:40 - 10:00	Button	Nicole	Validation of SMOS and Aquarius Salinity Data in the Agulhas Region
10:00 - 10:20	Reagan	James	Comparison analysis between NODC in situ analyzed sea surface salinity and Aquarius sea surface salinity
10:20 - 10:40	Vinogradova	Nadya	Estimates of Observational Errors Related to Small- Scale Horizontal and Vertical Variability in Salinity Fields
	Session 4 SMOS	and Aquarius sc	ience application and synergies
	Chairman: Nicolas Reul and Antonio Turiel		onio Turiel
10:40 - 11:00	Gordon	Arnold L.	Ocean Eddy Freshwater Flux
11:00-11:30	Coffee break		
11:30 - 11:50	Duran	Fabien	SMOS Reveals the Signature of Indian Ocean Dipole Events
11:50 - 12:10	Lee	Tong	Aquarius brings new understanding to tropical instability waves
			Initial Results on the Variability of Sea Surface Salinity

12:10 - 12:30	Vazuez	Jorge	from Aquarius/SAC-D in the Gulf of Mexico
12:30 - 12:50	Sato	Olga	Salinity variability associated with changes in the hydrological cycle variables
12:50 - 14:00	Lunch		
14:00 - 14:20	Xie	Pingping	NOAA In Situ & Satellite Blended Analysis of Sea Surface Salinity: Preliminary Results for 2010 - 2012
14:20 - 14:40	Hasson	Audrey	Analyzing the Recent Signature of ENSO in the Tropical Pacific Ocean using In Situ, SMOS and Model Salinity Data
14:40 - 15:00	Liu	W. Timothy	Ocean Surface Salinity Features as Observed by SMOS and Aquarius
15:00 - 15:20	Reul	Nicolas	Eastern Pacific Fresh Pool SSS variability observed by SMOS and Aquarius sensors over the period 2010-2012
15:20-15:50	Coffee break		
15:50-16:30	Summary of Working Groups on stratification and intercalibration (20 min each)		
16:30 -18:00	Discussion/ Summary of day's sessions		
	END OF WORKSHOP		

POSTERS

Artificial Intelligence Techniques for Downscaling SMOS Soil Moisture using MODIS Land Surface Temperature

Srivastava, Prashant K.; University of Bristol, Bristol, UNITED KINGDOM

The ESA SMOS+SOS Project: Oceanography using SMOS for Innovative Air-Sea Exchange Studies Banks, Chris;

National Oceanography Centre, UNITED KINGDOM;

Validation of Surface Salinity Retrieved by SMOS and Aquarius Satellites in the Bay of Bengal Akhil, V.P;

CNES/LEGOS, Toulouse, FRANCE;

Inter-Comparison of SMOS and Aquarius Brightness Temperatures at L-Band over Selected Targets Pablos, Miriam;

Universitat Politècnica de Catalunya, SPAIN;

Validation of Aquarius and SMOS Salinity Measurements in the Indian Ocean <u>Bulusu, Subrahman</u> UNIVERSITY OF SOUTH CAROLINA, UNITED STATES

Dependence of SMOS/MIRAS Brightness Temperatures on Wind Speed: Sea Surface Effect and latitudinal Biases Yin, Xiaobin;

LOCEAN, FRANCE; ²ARGANS, UNITED KINGDOM

Spatial Bias on SMOS Full-Polarimetric Images over the Ocean Wu, Lin; Remote Sensing Laboratory, Universitat Politècnica de Catalunya, Barcelona and SMOS Barcelona Expert Centre, SPAIN;

Retrieval of Surface Roughness From Active and Passive Microwave Observations <u>Gao, Y.</u>;

Department of Civil Engineering, Monash University, AUSTRALIA;

SMOS Performance in Southern Germany <u>Schlenz, Florian;</u> Ludwig-Maximilians University Munich (LMU), GERMANY

Tools, Services & Support of Aquarius/SAC-D Data Distribution through PO.DAAC <u>Tsontos, Vardis;</u> NASA/JPL, UNITED STATES

Current ESA Validation Campaigns in Support of SMOS <u>Casal, Tânia;</u> ESA/ESTEC, NETHERLANDS; ²ESA/ESRIN, ITALY

Microwave Remote Sensing Sensors On-Board Satellites Tracks Cyclone Thane: SMOS and OCEANSAT-II Calla, Opn; International Center for Radio Science, INDIA

The Tropical Atlantic North Equatorial CounterCurrent Dynamics from SMOS and Altimetry <u>Arnault, Sabine;</u> IRD, FRANCE;

Reconstruction of Decadal Time Series of Sea Surface Salinity in the Amazon River Plume using SMOS and MODIS/Aqua Data <u>Korosov, Anton</u>; <u>Nansen Environmental and Remote Sensing Center, NORWAY;</u>

Assessment of SMOS and AQUARIUS Performance in the Arctic Korosov, Anton; Nansen Environmental and Remote Sensing Center, NORWAY

Preliminary Results from Assimilating SMOS Sea-Surface Salinity Fields in an NCEP Operational Ocean Forecast System <u>Bayler, Eric;</u> NOAA/NESDIS, UNITED STATES;

Towards an Optimal SMOS Bayesian-Based Inversion Scheme for Salinity and Wind Speed Retrieval Purposes <u>Montuori, Antonio;</u> Università degli Studi di Napoli Parthenope, ITALY;

SMOS and AQUARIUS SSS in and around the SPURS/STRASSE Experiment <u>Hernandez, Olga</u>; LOCEAN, FRANCE;

SMOS Level 3 and Level 4 Research Products Provided by the Barcelona Expert Center Font, Jordi; ICM-CSIC & SMOS/BEC, SPAIN;

First Results of Aquarius SSS Data Assimilation in the Mercator Ocean System. <u>Tranchant, Benoît;</u> CLS/Mercator Océan, FRANCE;

Generating SMOS Sea Surface Salinity Maps with the Help of Data Assimilation <u>Ballabrera, Joaquim;</u> Institut de Ciencies del Mar, CSIC, SPAIN

Spatio-Temporal Coherence between Spaceborne Measurements of Salinity and Light Absorption in the Amazone Plume Region <u>Fournier, Severine</u>; IFREMER, FRANCE

Using Current and Future L-Band (1.4GHz) Missions for Sea Ice Thickness Retrieval. <u>Miernecki, Maciej</u> INRA, FRANCE

Preliminary Analysis of Aquarius Data for Cryospheric Applications de Matthaeis, P; NASA Goddard Space Flight Center, UNITED STATES

Freeze/Thaw Detection Using Aquarius' L-band Passive/Active Data <u>Xu, Xiaolan;</u> Jet Propulsion Laboratory, UNITED STATES Quality Control of remotely sensed Sea Surface Salinity in The Yellow Sea <u>Kil, Bumjun;</u> Department of Marine Science in University of Southern Mississippi, Stennis Space Center, UNITED STATES;

Impact of Icebergs Size on SMOS Brightness Temperature Measurements <u>Slominska, Ewa;</u> Space Research Centre PAS, POLAND

Sharing the Importance of Ocean Salinity Beyond the Scientific Community <u>deCharon, Annette</u> University of Maine, UNITED STATES

Inter-satellite Radiometric Calibration of Ocean Brightness Temperature between SMOS and Aquarius Jones, W Linwood; University of Central Florida, UNITED STATES

Coastal Salinity Variability over the East China Sea Monitored by the Aquarius/SAC-D Satellite *Kim, Seung-bum; JPL, UNITED STATES;*

Towards an Optimal Quality Control of L2 SMOS Data Martinez, Justino; ICM-CSIC & SMOS-BEC, SPAIN

Application of SMOS Ocean Salinity Data <u>Davaasuren, Narangerel</u>; IMARES, WUR, NETHERLANDS

Tropical Storm Monitoring with SMOS Sensor: An Overview of the SMOS+STORM Project <u>Reul, Nicolas;</u> IFREMER, FRANCE;

Examination and Comparison of SMOS and MyOcean Global Salinity Data <u>Samuel-Rhoads, Yianna;</u> Oceanography Centre, University of Cyprus, CYPRUS

Retrieval of Snow Thickness over Thick Multi-Year Sea Ice using SMOS Data <u>Maaß, Nina;</u> Institute of Oceanography, GERMANY

Satellite-based T/S Diagrams and Surface Ocean Water Masses <u>Sabia, R</u>; ESA, ITALY;

SMOS Derived Sea Ice Thickness in the Polar Regions <u>Tian-Kunze, Xianqshan</u>; University of Hamburg, Germany, GERMANY

Using SMOS Data to Evaluate AMSRE and WINDSAT C-Band Radiometer Salinity Inversion in River-Influenced Basins Vandemark, Douglas; Univ. of New Hampshire, UNITED STATES;

Scales of Sea Surface Salinity Variability from In Situ Observations and Numerical Model Results <u>Sena Martins, Meike;</u> Institute of oceanography, GERMANY;

Comparative Study of Sea Surface Salinity obtain from AquariusSAC-D Mission and Argo Floats over Indian Ocean <u>Calla, OPN</u>; International Center for Radio Science, INDIA

Retrieval and Validation of Sea Ice Thickness from SMOS-Data using Polarisation Information <u>Huntemann, Marcus;</u> University of Bremen, GERMANY

Ocean Roughness Correction for Aquarius Sea Surface Salinity Measurements <u>Hejazin, Yazan;</u> University of Central Florida- Remote Sensing Lab, UNITED STATES;

SMOS Brightness Temperature Enhancement in Coastal Areas <u>Gonzalez, Veronica</u>; CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS, SPAIN;

SMOS RFI Status Worldwide

<u>Oliva Balague, Roger;</u> ESAC, SPAIN;

A Comparative Study of Third Stokes Parameter from SMOS and Aquarius Measurements <u>Chae, Chun-Sik;</u> Jet Propulsion Laboratory, UNITED STATES;

Comparison of SMOS and SMAP Retrieval Algorithms Based on In Situ L-Band Observations at the VAS Site. <u>Miernecki, Maciej</u>; INRA, FRANCE;

Fusion of SMOS and Aquarius Level 3 SSS Maps by Spatial Optimization of the Error Matrix <u>Guimbard, S.;</u> Institut de Ciencies del Mar - CSIC, SPAIN;

Improved GW Model Function Based on Additional Seawater Measurements Lang, R.; The George Washington University, UNITED STATES;

Seasonal Variability of Sea Surface Salinity on a Global Scale <u>Bingham, Frederick;</u> University of North Carolina Wilmington, UNITED STATES;

Quantile Regression Methods Applied to Aquarius Data in the Eastern Tropical Pacific <u>Bingham, Frederick;</u> University of North Carolina Wilmington, UNITED STATES;

Tropical Atlantic salinity variability: new insights from SMOS <u>Tzortzi, Eleni;</u> National Oceanography Centre Southampton- University of Southampton, UNITED KINGDOM;

South Atlantic Circulation and Salinity <u>Matano, Ricardo</u> Oregon State University, UNITED STATES

Cross-Frontal Exchanges of Salt in the Gulf Stream Monitored with SMOS Satellite <u>Reul, Nicolas;</u> IFREMER, FRANCE;

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