

**30 Years of Progress
in Radar Altimetry Symposium**



30 Years of Progress in Radar Altimetry Symposium

Le Corum | Place Charles de Gaulle | Montpellier | France

2-7 September 2024

Detailed Programme

2024-09-02

Day 1, MONDAY 2 September 2024, Morning

08:00 09:00 60 **Symposium Registration (also on Sunday from 15:00 to 18:00)**

Pasteur Auditorium: SYMPOSIUM PLENARY SESSION - Opening, keynote presentations

Chairs: Jérôme Benveniste (Formerly, ESA), Pascal Bonnefond (Observatoire de Paris, SYRTE, France)

09:00	09:10	10	Introduction and Scope of the Symposium	Jérôme Benveniste François Pierrot	Formerly, ESA U. Montpellier - Vice-Président, International Relations
09:10	09:20	10	Welcome to Montpellier	Clare HART (Delegate for Mayor of Montpellier)	Michaël Delafosse, Mayor of Montpellier President of Montpellier Méditerranée Métropole
09:20	09:30	10	Welcome from ESA	Rune Floberghagen	ESA
09:30	09:40	10	Welcome from CNES	Yannice Faugère & Delphine Leroux (on behalf of Selma Cherchali)	CNES, FR
09:40	10:00	20	Keynote: The evolution of radar altimetry from Seasat to SWOT	Lee-Lueng Fu Rosemary Morrow Jean-François Crétaux Tamlin Pavelski	NASA/JPL, USA LEGOS, FR LEGOS, FR, UNC, USA
10:00	10:20	20	Keynote: 30 years of altimetry-based sea level measurements at global, regional and local scales - what have we learned ? what are the remaining gaps ?	Anny Cazenave Steven Nerem	LEGOS, FR U. Colorado, USA
10:20	10:40	20	Keynote: From mesoscale to small-scale ocean variability through satellite altimetry and multi-platform integration	Laura Gomez-Navarro Louise Rousset Ananda Pascual Francesco d'Ovidio and co-authors	IMEDEA(CSIC-UIB), ES LOCEAN, FR IMEDEA(CSIC-UIB), ES LOCEAN, FR
10:40	11:00	20	Keynote: Ocean waves - Altimetry and the many scales of the ocean surface elevation: wave heights, wave groups, skewness, and sea level "noise" - Global review on the assimilation of altimetry wave data in operational wave models - Wave energy near the coast from high-resolution Altimetry	Fabrice Ardhuin Lotfi Aouf Sonia Ponce de León	LOPS, FR Météo-France, FR CENTEC, PT
11:00	11:30	30	Coffee Break		
11:30	11:50	20	Keynote: Geodesy High resolution altimetric gravity and mean sea surface model development over the last 30 years from geodetic mission altimetry (with an outlook towards SWOT)	Ole Andersen David Sandwell Philippe Schaeffer	DTU Space, DK SIO, USA CLS, FR
11:50	12:10		Keynote: SAR and FFSAR Altimetry - How FFSAR changed the way we think about altimetry	Walter HF Smith Alejandro Egido	NOAA, USA ESA
12:10	12:30	20	Keynote: Rivers and Lakes Progress towards satellite and model requirements to capture water propagation in Earth's rivers - 30 years of progress in monitoring lakes	Cédric David Jean-François Crétaux	JPL, USA LEGOS/CNES, FR
12:30	13:00	30	Keynote: Altimetry for Cryosphere and Polar Ocean A 30-year Radar Altimetry Record of Ice Sheet Elevation and Mass Change A 30-year Radar Altimetry Record of Sea Ice 30 Years of Arctic Sea Level from Radar Altimetry: Assessing the Climate Change in the Arctic Region	Malcolm McMillan Sara Fleury Stine Kildegaard Rose	CPOM, UK LEGOS, FR DTU Space, DK
13:00	14:30	90	Lunch		

Day 1, MONDAY 2 September 2024, Afternoon

Pasteur Auditorium: Session 2.1 - Open Ocean

Co-chairs: Eric Leuliette, Rosemary Morrow

14:30	14:50	20	How much ENSO-related SSH predictability does ocean dynamic persistence provide in the tropical Pacific Ocean?	Tong Lee	Nasa Jet Propulsion Laboratory
			Lee T1, Wang O1 1 Nasa Jet Propulsion Laboratory		
14:50	15:10	20	The Nordic Seas Overturning Circulation: Three Decades of Satellite Altimetry Insights and Future Perspectives	Léon Chafik	Stockholm University
			Chafik L1 1 Stockholm University		
15:10	15:30	20	Kuroshio Extension's Role in the Mid-Latitude North Pacific Climate Variability based on 30-Year Satellite Altimetry Measurements	Bo Qiu	University of Hawaii at Manoa
			Qiu B1, Chen S1 1 University of Hawaii at Manoa		
15:30	15:50	20	Climate modes and interbasin interaction enhance the heat and height extremes near the east coasts of South Indian Ocean in Recent Decades	Weiqing Han	University of Colorado
			Han W1 1 The University Of Colorado		
15:50	16:10	20	Global Ocean spectral slopes : from 1D nadir altimetry to 2D with SWOT	Oscar Vergara	CLS
			Vergara O1,2, Morrow R2, Chevrier R1,2, Dibarboure G3, Picot N3 1 CLS, 2 LEGOS / CNRS / CNES / IRD / Université de Toulouse, 3 CNES		

16:10 16:40 30 **Coffee Break**

Pasteur Auditorium: Session 2.2 - Open Ocean

Co-chairs: Eric Leuliette, Rosemary Morrow

16:40	17:00	20	Observing ocean mesoscale eddies : a review from the Geosat era through to SWOT	Rosemary Morrow	LEGOS/CNRS
			Morrow R1 1Legos / CNRS / University Toulouse III		
17:00	17:20	20	Global trends in Eddy Kinetic Energy over the altimetric era: are the oceans becoming more energetic?	Bárbara Barceló-Llull	IMEDEA (CSIC-UIB)
			Barceló-Llull B1, Rosselló P1, Combes V1, Sanchez-Roman A1, Pujol M2, Pascual A1 1 IMEDEA (CSIC-UIB), 2 CLS		
17:20	17:40	20	Lagrangian characterization of the Southwestern Atlantic from a dense surface drifter deployment	Martin Saraceno	CIMA/CONICET-UBA
			Saraceno M1, Bodnariuk N1, Ruiz-Etcheverry L1, Berta M2 1 CIMA/CONICET-UBA, 2 CNR-ISMAR		
17:40	18:00	20	Application of SWOT data in oceanic fine-scale dynamics in the northwestern Pacific and South China Sea	Mingfang Miao	Ocean University of China
			Miao M1, Zhang Z1, Qiu B2, Zhao W1, Tian J1 1 Ocean University Of China, 2 University of Hawaii		
18:00	18:20	20	Improving the Mesoscale Eddy Characterization Through Combined Approach with Along-Track Data and Numerical	Chan-Ye Ohh	Applied Physics Laboratory of the University of Washington
			Ohh C1, Gaube P1, Early J2, Lilly J3 1 Applied Physics Laboratory, University of Washington, 2 NorthWest Research Associates, 3 Planetary Science Institute		

18:20 19:30 70 **ice breaker reception**

Day 1, MONDAY 2 September 2024, Afternoon

Einstein Auditorium: Session 6.1 - Inland Water

Co-chairs: Cédric David, Adrien Paris

14:30	14:50	20	Current Status of SWOT Performance over Rivers	Tamlin Pavelsky	University of North Carolina
			Pavelsky T1 1University of North Carolina		
14:50	15:10	20	Improving river networks hydrological-hydraulic models with SWOT and multi-satellite data	Pierre-andré Garambois	Inrae, Recover, Aix-marseille University
			Larnier K1, Garambois P2, Emery C3, Pujol P2, Monnier J4, Gal L1, Paris A1, Yesou H5, Ledauphin T5, Calmant S1 1Hydromatters, 2INRAE, 3UMR RECOVER, Aix-Marseille Univ., 3CS-group, 4INSA Toulouse, 5SERTIT-Icube, Strasbourg		
15:10	15:30	20	Preliminary assessment of SWOT L2 River products: case of the canalized Rhine River (France)	Hervé Yésou	Sertit-Icube, Unistra
			Ledauphin T1, Azzoni M1, maxant J1, Larnier K4, Amzil S1, Garambois P3, Fjortoft R2, Yésou H1 1Sertit-Icube, Unistra, 2CNES, 3INRAE, 4Hydro-Matters		
15:30	15:50	20	First results of the Surface Water Ocean Topography (SWOT) observations to rivers elevation profiles in the Cuvette Centrale of the Congo Basin	Cassandra Normandin	ISPA/INRAE
			Normandin C1, Frappart F, Bourrel L, Zeiger P, Salameh E, Peña Luque S, Ygorra B, Betbeder J, Gond V, Kitambo B, Papa F, Riazanoff S, Wigneron J 1ISPA/INRAE		
15:50	16:10	20	Navigating Uncertainties: Optimizing SWOT Assimilation for River Discharge Estimation	Kaushendra Verma	CNRM, Météo-France, CNRS
			Verma K1, Munier S1, Boone A1, Le Moigne P1 1CNRM, Météo-France, CNRS		

16:10 16:40 30 **Coffee Break**

Einstein Auditorium: Session 6.2 - Inland Water

Co-chairs: Cédric David, Tamlin Pavelsky

16:40	17:00	20	The Operational Framework of the Surface Water and Ocean Topography River Discharge	Hind Oubanas	INRAE
			Oubanas H1,5, Malaterre P1, Durand M2, Gleason C3, Larnier K4 1INRAE, 2The Ohio State University, 3The University of Massachusetts Amherst, 4CS Group, 5NASA Jet Propulsion Laboratory		
17:00	17:20	20	SWOT HR Lake Products and Global Performance Validation	Roger Fjortoft	CNES
			Pottier C, Fjortoft R1, Desroches D, Picot N, Cretaux J, Delhoume M, Labat-Allée L, Battude M, Cazals C 1CNES		
17:20	17:40	20	First evaluation of real SWOT observations for monitoring water storage changes in lakes and reservoirs in Sweden	Duan Zheng	Lund University
			Duan Z1, Caizaguano D1 1Department of Physical Geography and Ecosystem Science, Lund University		
17:40	18:00	20	Validation of the SWOT cross-over calibration over large lakes	Maxime Vayre	CLS
			Vayre M1, Renou J1, Dibarboure G2 1CLS, 2CNES		
18:00	18:20	20	Insights into the Sensitivity of SWOT KaRin Measurements to Lake Ice and Overlying Snow Properties	Jaya Sree Mugunthan	H2O Geomatics
			Mugunthan J1, Duguay C1, Jones B2, Murfitt J1, Zakharova E3 1H2O Geomatics, 2University of Alaska Fairbanks, 3EOLA		

18:20 19:30 70 **ice breaker reception**

Day 1, MONDAY 2 September 2024, Afternoon

Barthez: Session 7.1 - Cryosphere

Co-chairs: Jerome Bouffard, Mai Winstrup

14:30	14:50	20	A 30-year Radar Altimetry Record of Ice Sheet Elevation and Mass Change	Malcolm McMillan	CPOM Lancaster University
McMillan M1, Maddalena J1, Wassink R1, Phillips J1, Muir A2, Otosaka I3, Slater T3, Shepherd A3 1CPOM Lancaster University, 2UCL, 3Northumbria University					
14:50	15:10	20	30-Year Lake Ice Thickness Time Series from Radar Altimetry Data	Anna Mangilli	CLS
Mangilli A1, Duguay C2,3, Asfour K1, Murfit J2,3, Mugunthan J2,3, Amraoui S1,4, Moreau T1, Thibaut P1, Albergel C5, Donlon C6, Egido A5, Bouffard J6 1CLS, 2H2O geomatics, 3University of Waterloo, 4ESA ECSAT, 5ESA ESTEC, 6ESA ESRIN					
15:10	15:30	20	CryoSat Mission: 14 years of CalVal and Science for Earth's Cryosphere—and more	Alessandro Di Bella	ESA-ESRIN
Di Bella A1, Fornari M2, Hoyos Ortega B2, Casal T2, Bouffard J1, Parrinello T1 1ESA, 2ESA 1Sertit-Icube, Unistra, 2CNES, 3INRAE, 4Hydro-Matters					
15:30	15:50	20	The FOLIS dataset: Monitoring Land Ice from CryoSat-2 Swath processing	Andrea Incatasciato	Earthwave Ltd
Incatasciato A1, Jakob L1, Michael C1, Gourmelen N2, Bizon J1, Dubber S1, Ewart M1, Horton A1, Goss T1, Di Bella A3, Bouffard J3, Parrinello T3 1Earthwave Ltd, 2University of Edinburgh, 3ESRIN, European Space Agency					
15:50	16:10	20	Detection and Measurement of Wet and Dry Crevasses in ICESat-2 ATLAS Data and Their Role in Understanding the Progression of an Arctic Glacier Surge	Ute Herzfeld	University of Colorado Boulder
Herzfeld U1, Trantow T1, Middleton R1, Opfer C 1University Of Colorado Boulder 1Hydro-Matters, 2IMT, INSA-Toulouse, 3INRAE Aix-Marseille, RECOVER, 4CS GROUP, Space BU					

16:10 16:40 30 **Coffee Break**

Barthez: Session 7.2 - Cryosphere

Co-chairs: Mal McMillan, Anna Mangilli

16:40	17:00	20	A facet-based numerical model to retrieve ice sheet topography from Sentinel-3 altimetry	Jérémie Aublanc	CLS
Aublanc J1, Borde F2, Boy F3, Yanez C3, Femenias P4 1CLS, 2ESA/ESTEC, 3CNES, 4ESA/ESRIN					
17:00	17:20	20	Exploiting the potential of Sentinel 3A to detect the Antarctic ice sheet grounding line	Maya Suryawanshi	Indian Institute Of Science, Bengaluru, India
Suryawanshi M1, McMillan M2 1Indian Institute Of Science, 2Lancaster University					
17:20	17:40	20	CRISTAL - Next Copernicus Cryosphere Altimetry Mission	Mank Enrico	Airbus
Duan Z1, Caizaguano D1 1Department of Physical Geography and Ecosystem Science, Lund University					
17:40	18:00	20	IRIS, an interferometric radar altimeter for cryosphere measurements	Yves Le Roy	Thales Alenia Space
Vayre M1, Renou J1, Dibarboure G2 1CLS, 2CNES					
18:00	18:20	20	Svalbard as a radar altimeter fiducial reference observatory	Eero Rinne	University Centre In Svalbard Unis
Rinne E1, Landy J2, Ricker R3, Rapp O1, van der Vleuten S1 1University Centre In Svalbard Unis, 2UIT The Arctic University of Norway, 3NORCE Norwegian Research Centre					
18:20	19:30	30	ice breaker reception		

Day 2, Tuesday 3 September 2024, Morning

Pasteur Auditorium: Session 2.3 - Open Ocean

Co-chairs: Barbara Barcelo-Llull, Bo Qiu

08:30	08:50	20	Evolution and new challenges for the tides corrections for HR altimetry and SWOT	Florent Lyard	CLS
Lyard F3, Carrere L1, Fouchet E4, Abjean P1, Dabat M1, Tchilibou M1, Dibarboure G2 1CLS, 2CNES, 3LEGOS, 4NOVELTIS					
08:50	09:10	20	Extracting Surface Signatures of Internal Tides from SWOT KARin and JPSS VIIRS Observations over the Sulu and Celebes Seas	Bin Zhang	Global Science & Technology, Inc.
Zhang B1, Leuliette E 1Global Science & Technology, Inc.					
09:10	09:30	20	Towards Improved Multi-mission Sea Level Gridded Products	Maxime Ballarotta	CLS
Ballarotta M1, Ubelmann C, Meda G, Le Guillou F, Fablet R, Faugere Y, Pujol M, Dibarboure G 1CS					
09:30	09:50	20	Analysis of High-Frequency Sea-State Variability Using SWOT Nadir Measurements and Application to Altimeter Sea State Bias Modelling	Estelle Mazaleytrat	CLS
Mazaleytrat E1, Tran N1, Amarouche L1, Vandemark D2, Feng H2, Dibarboure G3, Signalet-Cazalet F3 1CLS, 2University of New Hampshire, 3Centre National d'Etudes Spatiales					
09:50	10:10	20	Characteristics and Impacts of Measurement Uncertainty in the Long-Term Sea State Record from Satellite Observations, from Coastal to Global Scales	Ben Timmermans	National Oceanography Centre (UK)
Timmermans B1, Gommenginger C1, Ollivier A2 1National Oceanography Centre (UK), 2CLS					
10:10	10:40	30	Coffee Break		
10:40	12:20	01:40	Poster Session		

Barthez: Round Table (in parallel with the poster session) - Women trailblazers: the present and the future of Remote Sensing Ocean and Hydrology science and engineering

Session Moderator: Luisella Giulichi, President WIA-Europe, ESA Copernicus System Manager

Session Composition: Dr Anny Cazenave, Geodesist and Ocean Scientist, Dr Rosemary Morrow, Ocean Scientist, CTOH/LEGOS/University Toulouse & CNES Ocean Lead, Dr Estelle Obligis, Marine Applications Manager, EUMETSAT, Dr Severine Fournier, Ocean Scientist, NASA JPL/Caltech

The session will bring together prominent figures from diverse organizations, academia, industries, and associations to engage in a focused dialogue on the present and future of remote sensing ocean and Hydrology science and engineering. The main objective is to inspire and to discuss the current status and future development in remote sensing monitoring of the oceans and hydrology as crucial elements of the Earth system in the Climate Change.

12:20 14:00 01:40

Lunch

Day 2, Tuesday 3 September 2024, Afternoon

Pasteur Auditorium: Session 2.4 - Open Ocean

Co-chairs: Barbara Barcelo-Llull, Bo Qiu

14:00	14:20	20	Precipitations as Seen From Altimetry Missions: From TopeX-Poseidon to Surface Water and Ocean Topography Mission, From One-Dimensional Coarse Flaggging to Two-Dimensional Detailed Characterization	Bruno Picard	Fluctus Sas
Picard B1, Raynal M2, Dibarboure G, Brown S3, Tournadre J4 1Fluctus Sas, 2CNES, 3NASA/JPL, 4IFREMER/LOS					
14:20	14:40	20	Estimating Ocean Currents from Joint Reconstruction of Absolute Dynamic Topography and Sea Surface Temperature Through Physics-Informed Deep Learning Algorithms	Daniele Ciani	CNR-Institute of Marine Sciences
Ciani D1, Fanelli C2, Buongiorno Nardelli B2 1CNR-Institute of Marine Sciences, 2CNR-Institute of Marine Sciences					
14:40	15:00	20	Synthesizing Nadir Altimetry and SST Using Deep Learning Improves the Resolution of Global SSH Maps	Scott Martin	School of Oceanography
Martin S1, Manucharyan G1, Klein P2 1School of Oceanography, University of Washington, 2Jet Propulsion Laboratory, California Institute of Technology					
15:00	15:20	20	Assimilation of Wide Swath Satellite Altimetry to Map Geostrophic and Internal Tide Signals of the Ocean Dynamics	Valentin Bellemine-Laponnaz	Institut des Géosciences et de l'Environnement
Bellemine-Laponnaz V1, Cosme E1, Le Guillou F2, Blayo E3, Ubelmann C4 1Institut des Géosciences et de l'Environnement, 2European Space Agency, 3Laboratoire Jean Kuntzmann, 4Datlas					
15:20	15:40	20	Cyclogeostrophic Inversion for Estimating Sea Surface Currents from SWOT Altimeter Data	Vadim Bertrand	IGE - CNRS
Bertrand V1, E V Z De Almeida V1, Le Sommer J1, Cosme E1, Boux de Casson L1 1Univ. Grenoble Alpes, CNRS, INRAE, IRD, Grenoble INP, IGE					
15:40	16:10	30	Coffee Break		

Pasteur Auditorium: Session 4.1 - Polar Ocean

Co-chairs: Alessandro Di Bella, Sara Fleury

16:10	16:25	15	A Bottom-Up Metrological Uncertainty Assessment of Sea Ice Thickness Measurements from Satellite and Non-Satellite Systems	Emma Woolliams	National Physical Laboratory
Woolliams E1, Erni T1, Behnia S1, Fleury S2, Fredensborg Hansen R3,4, Skourup H3 1National Physical Laboratory, 2CNRS, 3Department of Geodesy and Earth Observation, The National Space Institute, DTU Space, 4Department of Civil and Environmental Engineering, NTNU					
16:25	16:40	15	Validation and Uncertainties of a Multi-Frequency Altimetry Snow Depth Product Over the Arctic Ocean	Alice Carret	Serco
Carret A1, Fleury S2, Di Bella A3, Landy J4, Lawrence I3, Laforge A2 1Serco, 2LEGOS, 3ESA, 4UIT					
16:40	16:55	15	TOWARDS A COMMON PROCESSING CHAIN FOR THE OPEN AND POLAR OCEAN ON SENTINEL-3: LOOKING FOR THE "MAGIC" ALONG-TRACK WEIGHTING WINDOW.	Fanny Piras	CLS
Piras F1, Dinardo S2, Lucas B2, Moreau T1, Rodet L1, Nencioli F1, Smith W3 1CLS, 2EUMETSAT, 3NOAA					
16:55	17:10	15	CRISTAL Sea Ice & Iceberg L2 Processing: Baseline Approach and New Developments	Steven G Baker	UCL-MSSL
Baker S1, Garcia-Mondéjar A2, Brockley D1, Braakmann-Folgmann A3, Gilbert L1, Haas C4, Hendricks S4, Landy J3, Muir A1, Nandan V5, Ricker R6, Rocca I Aparici M2, Stroeve J5, Tournadre J7, Tsamados M8, Scagliola M10, Bouffard J9, Cipollini P11 1UCL-Mullard Space Science Laboratory (MSSL), 2IsardSAT, 3Arctic University of Norway - UIT, 4Alfred-Wegener-Institut Helmholtz-Zentrum (AWI), 5University of Manitoba, 6NORCE Norwegian Research Centre AS, 7Ifremer, 8UCL-Earth Sciences, 9ESA-ESRIN, 10RHEA for ESA, 11ESA-ESTEC					
17:10	17:25	15	Observing Wave-Affected Marginal Ice Zones in Southern Ocean by Satellite Radar Altimeter Synergy	Shiming Xu	Tsinghua University
Xu S1 1Tsinghua University					
17:25	17:40	15	Sea Ice Thickness Retrieval and Implications from Snow Effects Using CryoSat-2, OIB, and ICESat-2 in the Weddell Sea	Lu Zhou	Utrecht University
Zhou L1, Skourup H2, Saha K3, Zhu W4, Xu S4, Stroeve J5 1Utrecht University, 2Technical University of Denmark, 3California Institute of Technology, 4Tsinghua University, 5University College London					
17:40	17:55	15	Discussion		

Day 2, Tuesday 3 September 2024, Morning

Einstein Auditorium: Session 6.3 - Inland Water

Co-chairs: Karina Nielsen, Christian Schwatke

08:30	08:50	20	The Bin-Space-Time (BIST) retracking method: A paradigm shift in retracking methods	Mohammad J. Tourian	University of Stuttgart, Institute of Geodesy
Tourian M1, Elmi O1, Khalili S1, Engels J1 1University of Stuttgart, Institute of Geodesy					
08:50	09:10	20	Fault tolerant approach to regenerate Level 1B SAR altimetry waveforms for enhancing Level 2 retrackers performance	Shahin Khalili	University of Stuttgart
Khalili S1, Tourian M1, Elmi O1, Engels J1, Sneeuw N1 1University of Stuttgart 1CPRM, 2GET/CNRS, 3Hydromatters, 4INRAE, RECOVER, Aix-marseille University, 5CS GROUP - France., Space Business Unit, 6LEGOS, 7IRD, 8CNES, 9IOAGA					
09:10	09:30	20	Added values of geodetic datasets of satellite altimeters for inland water research	Liguang Jiang	Southern University of Science and Technology
Jiang L1, Nielsen K, Andersen O 1Southern University of Science and Technology					
09:30	09:50	20	Exploiting the Sentinel-6MF Fully Focused SAR waveforms over inland waters: Toward a new processing prototype for rivers.	Jean-Alexis Daguzé	CLS
Daguzé J1, Calassou G1, Taburet N1, Boy F2, Yanez C2 1CLS, 2CNES					
09:50	10:10	20	Improved inland water level measurements with Sentinel-6 Fully-Focused SAR processing	Xavier Domingo	isardSAT
Domingo X1, Gibert F1, Molina R1, Escorihuela M1 1isardSAT					
10:10	10:40	30	Coffee Break		
10:40	12:20	01:40	Poster Session		

Barthez: Round Table (in parallel with the poster session) - Women trailblazers: the present and the future of Remote Sensing Ocean and Hydrology science and engineering

Session Moderator: Luisella Giulicchi, President WIA-Europe, ESA Copernicus System Manager

Session Composition: Dr Anny Cazenave, Geodesist and Ocean Scientist, Dr Rosemary Morrow, Ocean Scientist, CTOH/LEGOS/University Toulouse & CNES Ocean Lead, Dr Estelle Obligis, Marine Applications Manager, EUMETSAT, Dr Severine Fournier, Ocean Scientist, NASA JPL/Caltech

10:40	11:20	40	The session will bring together prominent figures from diverse organizations, academia, industries, and associations to engage in a focused dialogue on the present and future of remote sensing ocean and Hydrology science and engineering. The main objective is to inspire and to discuss the current status and future development in remote sensing monitoring of the oceans and hydrology as crucial elements of the Earth system in the Climate Change.		
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12:20 14:00 01:40 Lunch

Day 2, Tuesday 3 September 2024, Afternoon

Einstein Auditorium: Session 6.4 - Inland Water

Co-chairs: Adrien Paris, Angelica Tarpanelli

14:00	14:20	20	DAHITI - MONITORING OF WATER LEVELS AND WATER SLOPES SURFACE USING USING SWOT KARIN MEASUREMENTS OVER INLAND WATERS	Christian Schwatke	DGFI-TUM
Schwatke C1, Scherer D1, Dettmering D1 1Deutsches Geodätisches Forschungsinstitut, Technical University Munich (DGFI-TUM)					
14:20	14:40	20	OPERATIONAL LAKES AND RIVERS WATER LEVEL MONITORING IN NEAR REAL TIME USING THE SATELLITE ALTIMETRY NADIR CONSTELLATION: CONTRIBUTIONS FROM HYDROWEB AND COPERNICUS GLOBAL LAND SERVICES	Nicolas Taburet	CLS
Taburet N1, Guilhem J1, Vayre M1, Calmettes B1, Barroso T2, Cretaux J2, Calmant S3 1CLS, 2CNES, 3LEGOS/IRD 1CPRM, 2GET/CNRS, 3Hydromatters, 4INRAE, RECOVER, Aix-marseille University, 5CS GROUP - France., Space Business Unit, 6LEGOS, 7IRD, 8CNES, 9IOAGA					
14:40	15:00	20	TOWARDS THE PROVISION OF OPERATIONAL FRM MEASUREMENTS FOR SENTINEL-3 OVER INLAND WATER: PROCEDURES, PROTOCOLS AND ROADMAP	Valentin Fouqueau	Vortex-io
Fouqueau V1, R Woolliams E3, Picot N4, Poisson J1, Behnia S3, Taburet N6, Renou J6, Yésou H7, Tarpanelli A8, Camici S8, Nielsen K5, Boy F4, Fjortoft R4, Ferrari R2, J Tourian M9, Sneeuw N9, Calzas M10, Paris A11, Valladeau G1, Bonnefond P12, El Hajj M2, Catapano F13, Femenias P13 1Vortex-io, 2NOVELTIS, 3NPL, National Physical Laboratory, 4CNES, 5DTU Space, 6CLS, 7SERITIT, 8CNR-IRPI, 9GIS, Institute of Geodesy, 10DT-INSU, 11Hydro Matters, 12SYRTE, 13ESA-ESRIN					
15:00	15:20	20	SATELLITE ALTIMETRY-BASED EXTENSION OF GLOBAL-SCALE IN SITU RIVER DISCHARGE MEASUREMENTS (SAEM)	Peyman Saemian	Institute Of Geodesy
Saemian P1, Elmi O1, Riggs R2, Stroud M2, Kitambo B3, Papa F3, Allen G2, Tourian M1 1Institute Of Geodesy, University of Stuttgart, 2Department of Geosciences, Virginia Polytechnic Institute and State University, 3Laboratoire d'Études en Géophysique et Océanographie Spatiales (LEGOS), Université de Toulouse, CNES/CNRS/IRD/UT3					
15:20	15:40	20	INNOVATIVE OF-NADIR VALIDATION AND PROCESSING APPLIED ON HYDROLOGY THEMATIC PRODUCTS OF SENTINEL-3 LAND STM FOR PERFORMANCE ASSESSMENT OVER RIVERS	Julien Renou	CLS
Renou J1, Chapellier M1, Taburet N1, Aublanc J1, Chamyayou A1, Catapano F2, Femenias P2 1CLS, 2ESA-ESRIN					
15:40	16:10	30	Coffee Break		

Einstein Auditorium: Session 6.5 - Inland Water

Co-chairs: Guy Schumann, Mohammad Tourian

16:10	16:30	20	Improving SAR Altimeter processing over inland water, through implementation of innovative processing algorithms and assessment of a new inland water data set. Results from the ESA HYDROCOASTAL project	David Cotton	SATOC
Cotton D1, Urien S2, Nielsen K3, Fenoglio-Marc L11, Bercher N4, Tarpanelli A5, Zakharova E6, Bauer-Gottwein P7, Fernandes J8, Restano M9, Benveniste J10 1SATOC, 2isardSAT, 3DTU Space, 4ARIHydroLab / QINAO, 5CNR-IRPI, 6NUIM, 7DTU Environment, 8University of Porto, 9SERCO/ESA, 10Formerly, ESA-ESRIN, 11University of Bonn Laboratory					
16:30	16:50	20	USING A VECTOR AUTOREGRESSIVE MODEL AND GAUGE RELATIONSHIPS TO PREDICT WATER LEVELS OF THE ODRÄ/ODER RIVER AT VIRTUAL SITES OF THE SENTINEL-3A SATELLITE	Michał Halicki	University of Wrocław
Halicki M1, Niedzielski T1 1University Of Wrocław					
16:50	17:10	20	SYNERGIES BETWEEN RADAR ALTIMETRY AND MULTISPECTRAL REFLECTANCE SIGNAL FOR RIVER DYNAMICS DETECTION AND RIVER DISCHARGE ESTIMATION: PROGRESS AND NEXT STEPS	Angelica Tarpanelli	CNR-IRPI
Tarpanelli A1, Filippucci P1, Sahoo D1 1CNR-IRPI					
17:10	17:30	20	EVALUATION OF RADAR AND LIDAR ALTIMETERS FOR RIVER AND LAKE WATER LEVEL, LAKE VOLUME AND RIVER DISCHARGE MONITORING IN PARTS OF INDIA	Praveen K Thakur	IIRS, ISRO
Thakur P1, Dhote P1, Garg V1, Chouksey A1, Singh R1 1Indian Institute of Remote Sensing, IIRS, ISRO					
17:30	17:50	20	CONGO RIVER BASIN'S HYDROCLIMATOLOGY AND ITS LINK WITH CLIMATE VARIABILITY UNRAVELED FROM SPACE storage changes in lakes and reservoirs in Sweden	Fabrice Papa	IRD/LEGOS
Papa F1, Kitambo B2.3, Paris A4, Wongchuig S5, Fleischmann A6, Tshimanga R3, Frappart F7, Tourian M8, Elmi O8, Becker M9, Paiva R10, Andriambeloson J11, Boucharel J1, Jucá Oliveira R4, Biancamaria S2, Gal L4, Calmant S1.4 1IRD/LEGOS, 2CNRS/LEGOS, 3CRREBaC, University of Kinshasa, 4Hydro-Matters, 5CNES/LEGOS, 6Mamiraua Institute, 7INRAE/ISPA, 8University of Stuttgart, 9CNRS/LIENSSE, 10IPH/IFRGS, 11LGET/IOGA					

Day 2, Tuesday 3 September 2024, Morning

Barthez: Session 8.1 - Building the 30 Year Record

Co-chairs: Jean-Damien Desjonqueres, Estelle Obligis

08:30	08:50	20	30 YEARS OF IN SITU ALTIMETER VALIDATION: RESULTS AND PERSPECTIVES FROM THE BASS STRAIT FACILITY	Christopher Watson	University of Tasmania
Watson C1,2, Legresy B3,2, Hay A1, Beardsley J2,1, Zhou B1, King M1 1University of Tasmania, 2Integrated Marine Observing System, 3CSIRO					
08:50	09:10	20	THE ESA PERMANENT FACILITY FOR ALTIMETRY CALIBRATION IN CRETE: RANGE, SIGMA0, AND SEA-SURFACE CALIBRATION WITH TRANSPONDERS, CORNER REFLECTORS AND COASTAL REFERENCE SITES	Stelios Mertikas	Technical University of Crete
Mertikas S1, Donlon C2, Piretziadis D3, Kokolakis C3, Cullen R2, Femenias P4, Fornari M2, Bouffard J4, Di Bella A4, Boy F5, Frantzis X1, Tripolitsiotis A3, Lin M6, Yang L7 1Technical University of Crete, 2European Space Agency-ESTEC, 3Space Geomatica P.C., 4European Space Agency-ESRIN, 5Centre National d'Etudes Spatiales, France, 6National Satellite Ocean Application Service, 7First Institute of Oceanography					
09:10	09:30	20	EXTENDING THE CORSICA FACILITIES UP TO SWOT SWATH	Pascal Bonnefond	SYRTE - Observatoire de Paris
Bonnefond P1, Laurain O2, Calzas M3, Drezin C3, Fichen L3, Guillot A3, Guinle T4, Picot N4 1SYRTE, Observatoire de Paris, 2Geoazur, Observatoire de la Cote d'Azur, 3DT-INSU, 4CNES					
09:30	09:50	20	30 YEARS OF CALIBRATION WITH TRANSPONDERS	Albert Garcia-Mondejar	isardSAT
Garcia-Mondejar A1, Flores de la Cruz A1, Mertikas S2, Kokolakis C2, Piretziadis D3, Mosca A4, Particoroli S4, Lombardi F4, Cordisco L4, Pierdica N5, Desjonqueres J6, Boy F7, Maraldi C7, Picot N7, Francis R8, Powell J13, Birks A13, Fornari M9, Donlon C10, Mavrocordatos C10, Borde F10, Di Bella A11, Bouffard J12, Femenias P12, Roca i Aparici M1 1isardSAT, 2Technical University of Crete, 3Space Geomatica, 4Radio Analog Micro Electronics, 5Sapienza University of Rome, 6Jet Propulsion Laboratory, 7Centre National d'Etudes Spatiales, 8GerSpatial, 9RHEA / ESA-ESTEC, 10ESA-ESTEC, 11RHEA / ESA-ESRIN, 12ESA-ESRIN, 13STFC RAL Space					
09:50	10:10	20	SIGNIFICANT WAVE HEIGHT AND WIND CALIBRATION OF SENTINEL-6 MF WITH SEA-STATE OPTICAL TECHNIQUES AND GNSS INTERFEROMETRIC REFLECTOMETRY AT THE ESA PERMANENT FACILITY FOR ALTIMETRY CALIBRATION IN CRETE.	Stelios Mertikas	Technical University of Crete
Mertikas S1, Donlon C2, Collard F3, Larson K4, Williams S6, Frantzis X1, Piretziadis D5, Kokolakis C5, Tripolitsiotis A5 1Technical University of Crete, 2European Space Agency-ESTEC, 3OceanDataLab, 4Institute of Geodesy and Geoinformation, University of Bonn, 5Space Geomatica P.C., 6Marine Physics and Ocean Climate, National Oceanography Center					

10:10 10:40 30 **Coffee Break**

10:40 12:20 01:40 **Poster Session**

Barthez: Round Table (in parallel with the poster session) - Women trailblazers: the present and the future of Remote Sensing Ocean and Hydrology science and engineering

Session Moderator: Luisella Giulicchi, President WIA-Europe, ESA Copernicus System Manager

Session Composition: Dr Anny Cazenave, Geodesist and Ocean Scientist, Dr Rosemary Morrow, Ocean Scientist, CTOH/LEGOS/University Toulouse & CNES Ocean Lead, Dr Estelle Obligis, Marine Applications Manager, EUMETSAT, Dr Severine Fournier, Ocean Scientist, NASA JPL/Caltech

The session will bring together prominent figures from diverse organizations, academia, industries, and associations to engage in a focused dialogue on the present and future of remote sensing ocean and hydrology science and engineering. The main objective is to inspire and to discuss the current status and future development in remote sensing monitoring of the oceans and hydrology as crucial elements of the Earth system in the Climate Change.

10:40 11:20 40

12:20 14:00 01:40 **Lunch**

Day 2, Tuesday 3 September 2024, Afternoon

Barthez: Session 8.2 - Building the 30 Year Record

Co-chairs: Frank Lemoine, Remko Scharroo

14:00	14:20	20	STILL IMPROVING THE ERS-1, ERS-2 AND ENVISAT ALTIMETER AND RADIOMETER HISTORICAL DATASETS: TOWARDS A NEW VERSION OF THE FDR4ALT PRODUCTS	Fanny Piras	CLS
Piras F1, Aublanc J1, McMillan M2, Guilhen J1, Calmettes B1, Fell F3, Picard B4, Roinard H1, Niño F5, Tran N1, Behnia S6, Woollams E6, Ollivier A1, Nigou A1, Asfour K1, Garcia P7, Fernandes J8, Vieira T8, Otten M9, Springer T9, Fouchet E10, Thibaut P1, Catapano F11, Femenias P11 1CLS, 2Lancaster University, 3Informus, 4Riucht, 5LEGOS, 6NPL, 7IsardSat, 8Porto University, 9Positim, 10Noveltis, 11ESA-ESRIN					
14:20	14:40	20	30 YEARS OF SEA ICE THICKNESS AND VOLUME OVER ARCTIC AND ANTARCTIC FROM SATELLITE ALTIMETRY	Sara Fleury	LEGOS/CNRS
Fleury S1, Bocquet M1, Rémy F1, Piras F2, Picot N3, Femenias P4, Bouffard J4 1LEGOS/CNRS, 2CLS, 3CNES, 4ESA/ESRIN					
14:40	15:00	20	REFERENCE OBSERVATIONS IN SUPPORT OF SEA ICE ALTIMETRY MISSIONS – AN OVERVIEW AND FUTURE NEEDS	Eero Rinne	Technical University of Denmark
Skourup H1, Olsen I2, Fleury S3, Fredensborg Hansen R1, Salilla H4, Hendricks S5, Kern S6, Paul S5, Bocquet M3, Lavergne T7, Hvidegaard S1, Rinne E8 1Technical University of Denmark, 2Danish Meteorological Institute, 3Université de Toulouse, LEGOS (CNES/CNRS/IRD/UTS), 4Finnish Meteorological Institute (FMI), 5Alfred Wegener Institute (AWI), 6University of Hamburg, 7Norwegian Meteorological Institute, 8University Centre in Svalbard (UNIS)					
15:00	15:20	20	SENTINEL-6MF PERFORMANCES OVER OCEAN	François Bignalet-Cazalet	CNES
Bignalet-Cazalet F1, Maraldi C1, Cadier E2, Courcol B2, Martin Puig C3 1CNES, 2CLS, 3Eumetsat					
15:20	15:40	20	WET TROPOSPHERIC CORRECTION FOR ALTIMETRY: PROGRESS MADE SINCE THE BEGINNING OF ALTIMETRY ERA AND CHALLENGES TO COME	Estelle Obligis	EUMETSAT
Obligis E1 1Eumetsat					

15:40 16:10 30 **Coffee Break**

Barthez: Session 8.3 - Building the 30 Year Record

Co-chairs: Severine Fournier, Stelios Mertikas

16:10	16:30	20	LONG TERM ASSESSMENT OF THE GLOBAL MEAN SEA LEVEL RECORD AND ASSOCIATED UNCERTAINTIES BASED ON NEW L2P DT 24 PRODUCTS	Victor Quet	CLS
Quet V1, Mangilli A1, Prandi P1, Kocha C1, Dibarbouré G2 1CLS (Collecte Localisation Satellites), 2CNES (Centre National d'Etudes Spatiales)					
16:30	16:50	20	SEA LEVEL RISE FROM ALTIMETRY: CLIMATE BELLWETHER AND IMPLICATIONS FOR FUTURE MISSIONS	Remko Scharroo	EUMETSAT
Scharroo R1, Obligis E1, Bojkov B1, Figa J1, Egado A2, Donlon C2 1EUMETSAT, 2ESA/ESTEC					
16:50	17:10	20	HOW DO MEASUREMENT ERROR AND NATURAL VARIABILITY CONTRIBUTE TO TREND ESTIMATION UNCERTAINTY?	Xavier Loizeau	National Physical Laboratory
Loizeau X1, Howard T1, Woollams E1, Behnia S1 1National Physical Laboratory					
17:10	17:30	20	IMPROVEMENTS IN ESTIMATING 30-YEAR MEAN SEA LEVEL TRENDS AND ACCELERATION FROM GLOBAL TO REGIONAL SCALES	Anna Mangilli	CLS
Mangilli A1, Prandi P1, Meysignac B2,3, Quet V1, Fourest S2,3, Octau F1, Labroue S1, Barnoud A4, Ablain M4, Dibarbouré G2, Connors S5 1CLS, 2CNES, 3LEGOS, 4Magellium, 5ESA ECSAT					
17:30	17:50	20	RECONCILING GLOBAL AND REGIONAL SEA LEVEL CHANGES FROM 30 YEARS OF ALTIMETRY AND 20 YEARS OF GRACE AND GRACE FOLLOW ON OBSERVATIONS.	Carsten Ludwigsen	DTU Space
Ludwigsen C1, Andersen O1, Watson C, King M 1DTU Space					

Day 2, Tuesday 3 September 2024, Afternoon

Rondelet: Session 10.1 - Outreach

Co-chairs: Vinca Rosmorduc, Margaret Srinivasan

16:10	16:30	20	30 YEARS OF SOCIETAL BENEFITS FROM OCEAN ALTIMETRY MISSION DATA	Margaret Srinivasan	JPL
Srinivasan M1 1Nasa JPL					
16:30	16:50	20	ACCELERATING SOCIETAL BENEFIT OF THE SURFACE WATER AND OCEAN TOPOGRAPHY MISSION	Angelica Rodriguez	NASA Jet Propulsion Laboratory
Bonnema M1, Rodriguez A1, Nickles C1 1NASA JPL					
16:50	17:10	20	PROMOTING & EXPLAINING A NEW TECHNOLOGY: SWOT OUTREACH	Vinca Rosmorduc	CLS
Rosmorduc V1 1CLS					
17:10	17:30	20	THE HORIZON2020 OPEN CLOUD FOR RESEARCH ENVIRONMENT PROJECT'S HIGH-RESOLUTION ALTIMETRY DATA FOR COASTAL ANALYSIS	Sonia Ponce De León Alvarez	CENTEC
Ponce De León Alvarez S1, Orru C2, Iesué M2, Orlandi M2, Rivolta G2, Restano M3, Benveniste J4 1CENTEC, 2Progressive Systems-EarthConsole, 3SERCO-ESRIN, 4Formerly, ESA-ESRIN					
17:30	17:50	20	OUTREACH SHOWCASE --	ALL	VARIOUS
Various volunteer short presentations					

Day 3, WEDNESDAY 4 September 2024, Morning							
Pasteur Auditorium: Session 4.2 - Polar Ocean							
Co-chairs: Alessandro Di Bella, Sara Fleury							
08:30	08:45	15	SEA-ICE DETECTION FROM SWIM OFF NADIR BEAMS: FOCUS ON WAVE FORECASTING IN POLAR OCEANS	Amanda Gounou	CS Group		
Gounou A1, Aouf L2, Peureux C3, Hauser D4, Ollivier A3, Hazan D5, Tourain C5 1CS Group, 2Meteo France, 3CLS, 4LATMOS CNRS, 5CNES							
08:45	09:00	15	RECENT FRESHENING IN THE LOFOTEN BASIN AND THE ROLE OF MESOSCALE EDDIES	Roshin P. Raj	NERSC		
P. Raj R1,2, Dong H3, Bonaduce A1,2, Chatterjee S4, Puig Moner L1, Umbert M5, A. Johannessen J1 1Nansen Environmental and Remote Sensing Center, 2Bjerknes Center for Climate Research, 3Shanghai Jiao Tong University, 4National Center for Polar and Ocean Research, 5Barcelona Expert Center on Remote Sensing, Institut de Ciències del Mar, CSIC							
09:00	09:15	15	ICEBERG DETECTION IN THE SOUTHERN OCEAN BASED ON A MULTI-SENSOR APPROACH	Franck Mercier	CLS		
Mercier F1, VIARD J, Legeais J, Calvez M 1CS							
09:15	09:30	15	FIRST SFA ICE TOPOGRAPHY MEASUREMENTS USING SWOT	Gwenael Jestin	LEGOS/CNRS		
Jestin G1, Fleury S1, Piras F2, Rampal P4, Reynal M3, Boy F3 1LEGOS/CNRS, 2CLS, 3CNES, 4IGE							
09:30	09:45	15	SWOT OVER THE ICE-COVERED POLAR OCEANS	Sahra Kacimi	Jet Propulsion Laboratory		
Kacimi S1, Kwak R2, Jaruwatanadilok S1 1Jet Propulsion Laboratory, 2Applied Physics Laboratory, Polar Science Center, University of Washington							
09:45	10:00	15	POLARIMETRIC RADAR ALTIMETRY OVER THE CRYOSPHERE: SURFACE-BASED DATA AND FUTURE POSSIBILITIES	Rosemary Willatt	Northumbria University		
Willatt R1,2, Stroeve J3,2, Nandan V3,4, Sandells M1, Selley H5, Hogg A5, Baker S2, Mallett R6 1Northumbria University, 2UCL, 3University of Manitoba, 4University of Calgary, 5University of Leeds, 6UIT							
10:10	10:40	30	Coffee Break				
Pasteur Auditorium: Session 3.1 - Coastal Ocean							
Co-chairs: Jesus Gomes-Enri, Claire Maraldi							
10:40	11:00	20	ARE NEAR-COASTAL SEA LEVELS ACCELERATING FASTER THAN GLOBAL DURING THE SATELLITE ALTIMETRY ERA?	Jevrejeva Svetlana	National Oceanography Centre		
Jevrejeva S1, Qu Y2, Palanisamy H3 1National Oceanography Centre, 2School of Geography							
11:00	11:20	20	20-YEAR-LONG SEA LEVEL CHANGES ALONG THE WORLD'S COASTLINES FROM SATELLITE ALTIMETRY: THE NEW ESA CCI DATASET OF COASTAL VIRTUAL STATIONS	Legais Jean-François	CLS		
Legais J1, Cazenave A2, Leclercq L2, Léger F2, Birol F2, Niño F2, Passaro M3, Calafat F4, Shaw A5, Oelmann J3, Restano M6, Benveniste J7 1CLS, 2LEGOS, 3TUM, 4NOCS, 5Skymat Ltd, 6 Serco/ESRIN, 7Formerly, ESA-ESRIN							
11:20	11:40	20	OBSERVING WATER LEVELS IN COASTAL, ESTUARINE, AND RIVERINE ENVIRONMENTS WITH IN-SITU GAUGES, NADIR ALTIMETRY AND SWATH ALTIMETRY: CHALLENGES AND OPPORTUNITIES	Gommenginger Christine	National Oceanography Centre		
Gommenginger C1, Lichtman I1, Banks C1, Calafat F2, Bell P1 1National Oceanography Centre, 2University of the Balearic Islands							
11:40	12:00	20	Coastal Sea Level Rise in the Gulf of Mexico	Lancelot Leclercq	LEGOS		
Leclercq L1, Cazenave A1, Léger F1, Thirlon G1, Gravelle M2 1Université de Toulouse, LEGOS (CNES/CNRS/IRD/UT3), 2LIENSs, CNRS-La Rochelle University							
12:00	12:20	20	FULLY FOCUSED SAR ALTIMETRY AND INNOVATIVE RIVER LEVEL GAUGES FOR COASTAL MONITORING - THE FFSAR-COASTAL PROJECT	David Cotton	SATOC		
Cotton D1, Nielsen K2, Andersen O2, Kruse M2, Poisson J3, Thompson C4, Becker A5, Restano M6, Benveniste J7 1SATOC, 2DTU, 3Vortex-io, 4Channel Coast Observatory, 5National Oceanography Centre, 6SERCO/ESA, 7Formerly,ESA-ESRIN							
12:20	14:00	01:40	Lunch				
Day 3, WEDNESDAY 4 September 2024, Afternoon							
Pasteur Auditorium: Session 3.2 - Coastal Ocean							
Co-chairs: Christine Gommenginger, Imen Turki							
14:00	14:20	20	COASTAL HYDROLOGY SUPPORTED BY SATELLITE ALTIMETRY RADAR (CRYOSAT-2)	Gómez-Enri Jesús	University of Cadiz		
Gómez-Enri J1, Aldarias A2, Mulero-Martínez R1, Vignudelli S3, Bruno M1, Mañanes R1, Izquierdo A1, Fernández-Barba M4 1University of Cadiz, 2Spanish Institute of Oceanography, 3CNR-IBF, 4Institute of Marine Science of Andalusia-CSIC							
14:20	14:40	20	IMPROVING SAR ALTIMETER PROCESSING OVER THE COASTAL ZONE THROUGH IMPLEMENTATION OF INNOVATIVE PROCESSING ALGORITHMS AND ASSESSMENT OF A NEW COASTAL ZONE DATA SET. RESULTS FROM THE ESA HYDRO-COASTAL PROJECT	David Cotton	SATOC		
Cotton D1, Ullrich S2, Escorriuela M2, Nielsen K3, Fenoglio-Marc L4, Vignudelli S5, De Biasio F6, Shaw A7, Fernandes J8, Slobbe C9, Gómez-Enri J10, Restano M11, Benveniste J12 1SATOC, 2IsardsAT, 3DTU Space, 4University of Bonn, 5CNR-IBF, 6CNR-ISP, 7SKYMAT Ltd, 8University of Porto, 9TU Delft, 10University of Cadiz, 11SERCO/ESA, 12Formerly, ESA-ESRIN							
14:40	15:00	20	SHELF/DEEP-OCEAN INTERACTIONS IN THE SW ATLANTIC	Ricardo Matano	CEOAS, Oregon State University		
Matano R1, Combes V2 1Ceoas, Oregon State University, 2Institut Mediterrani d'Estudis Avançats							
15:00	15:20	20	SEASONAL TO DECADAL VARIATIONS IN OCEAN CURRENTS OFF CANADA'S PACIFIC AND ATLANTIC COASTS	Guoqi Han	Fisheries And Oceans Canada		
Han G1 1Fisheries And Oceans Canada							
15:20	15:40	20	OCEAN TIDES IN THE COASTAL REGION: INSIGHTS GAINED FROM SWOT	Michael Hart-Davis	DGFI-TUM		
Hart-Davis M1, Ray R2, Andersen O3, Arildsen R3, Zaron E4, Schwatke C1, Dettmering D1 1DGFI-TUM, 2Geodesy & Geophysics Lab., NASA Goddard Space Flight Center, 3National Space Institute, Technical University of Denmark, 4College of Earth, Ocean, and Atmospheric Sciences, Oregon State University							
15:40	16:10	30	Coffee Break				
Pasteur Auditorium: Session 3.3 - Coastal Ocean							
Co-chairs: Lotfi Aouf, Sonia Ponce De León Alvarez							
16:10	16:30	20	MONITORING THE BALTIC SEA COASTAL ZONE WITH SWOT AND NADIR-ALTIMETERS	Luciana Fenoglio-Marc	University of Bonn		
Fenoglio-Marc L1, Morholz V2, Chen J1, Kusche J1 1University Of Bonn, 2Leibnitz Institute for Baltic Sea research (IOW)							
16:30	16:50	20	30 YEARS OF WIND AND WAVE ENERGY ASSESSMENT IN THE OFFSHORE AREAS OF CHINA FROM SATELLITE ALTIMETRY	Qianqian LI	State Key Laboratory of Geodesy and Earth's Dynamics		
LI Q1, BAO L1,2, WU L1, WANG Y1,2 1State Key Laboratory of Geodesy and Earth's Dynamics, Innovation Academy for Precision Measurement Science and Technology, Chinese Academy of Sciences, 2University of Chinese Academy of Sciences							
16:50	17:10	20	ASSESSMENTS OF WAVE RESOURCES USING THE HORIZON2020 OPEN CLOUD FOR RESEARCH ENVIRONMENT PROJECT'S HIGH-RESOLUTION ALTIMETRY DATA IN THE ATLANTIC FRENCH AND PORTUGAL	Sonia Ponce De León Alvarez	CENTEC, IST-ID		
Ponce De León Alvarez S1, Restano M2, Benveniste J3 1CENTEC, 2SERCO-ESRIN, 3Formerly, ESA-ESRIN							
17:10	17:30	20	DEVELOPMENT OF A NEW UAV-BASED LIDAR ALTIMETRY SOLUTION FOR IN-SITU WAVE SPECTRUM ESTIMATION IN COSTAL AREA	Valentin Fouqueau	Vortex-io		
Fouqueau V1, Poisson J-C1, Lesnard-Evangellista E1, Riou Y1, Valladeau G1, Tourain C2, Picot N2, Boy F2 1Vortex-io, 2CNES							
17:30	17:50	20	COASTAL PROCESSING USING SAR INTERFEROMETRIC MEASUREMENTS	Pablo Garcia	isardsAT		
García P1, Guerra M1, Granados A1, Roca I Aparici M1, García-Mondéjar A1, Vendrell E1, Femenias P2, Lucas B3 1isardsAT, 2ESA-ESRIN, 3EUMETSAT							
19:30	23:00	03:30	SYMPOSIUM DINNER - Le Château de Pouget (buses from Corum will leave at 18:45)		Sponsored by EUMETSAT		

Day 3, WEDNESDAY 4 September 2024, Morning

Einstein Auditorium: Session 6.6 - Inland Water

Co-chairs: Guy Schumann, Angelica Tarpanelli

08:30	08:50	20	14 YEARS OF WATER LEVEL CHANGE IN LAKES AND RESERVOIRS OBSERVED BY CRYOSAT-2	Karina Nielsen	DTU-Space
Nielsen K1, Jiang L2 1DTU-Space, 2SUSTech					
08:50	09:10	20	DEEP-LEARNING AIDED METEOTsunami EVOLUTIONS OVER LAURENTIAN GREAT LAKES	C K Shum	Division of Geodetic Science, School of Earth Sciences, Ohio State University
Shum C1, Wang S2, Jia Y1, Akyilmaz O2, Uz M3 1Division of Geodetic Science, School of Earth Sciences, The Ohio State University, 2Department of Geomatics, Istanbul Technical University, 3Helmholtz Centre Potsdam, GFZ German Research Centre For Geosciences					
09:10	09:30	20	CHANGES IN WATER LEVELS, EXTENT AND STORAGE OF THE TITICACA LAKE USING SWOT DATA	Fredéric Frappart	INRAE
Frappart F1, Normandin C, Visitation K, Bourrel L, Peña Luque S, Rau P, Lavado W, Wigneron J-P 1INRAE					
09:30	09:50	20	COMPARISON OF METHODS TO DERIVE THE HEIGHT-AREA RELATIONSHIP OF SHALLOW LAKES IN WEST AFRICA USING REMOTE SENSING	Felix Girard	GET
Girard F1, Kergoat L1, Nikkima H2, Wubda M3, Yonaba R4, Fowé T4, Abdourhamane Touré A5, Mainassara I6, de Fleury M1, Grippa M1 1Geosciences Environnement Toulouse (GET, Université de Toulouse, CNRS, IRD, CNES), 2LERMIT, Université Joseph Ki-Zerbo, 3Université Joseph Ki-Zerbo, UFR-SVT/DST, 4Laboratoire Eaux, Hydro-Systèmes et Agriculture (LEHSA), Institut International d'Informatique de l'Eau et de l'Environnement (2IE), 5 Université Abdou Moumouni, Faculté des Sciences et Techniques, Département de Géologie, 6HydroSciences Montpellier (HSM, Univ Montpellier, CNRS, IRD)					
09:50	10:10	20	INLAND WATER EXTENT MEASUREMENTS FOR THE CRISTAL MISSION	Adrià Gómez Olivé	isardSAT SL
Gómez Olivé A1, Gibert F1, García-Mondéjar A1, McKeown C2, McMillan M3, Scagliola M4 1isardSAT SL, 2isardSAT Ltd., 3Lancaster University, 4RHEA, ESA ESRIN					

10:10 10:40 30 **Coffee Break**

Einstein Auditorium: Session 9.1 - Synergy

Co-chairs: William Llovel, Nathalie Zilberman

10:40	10:55	15	PRECISE SEA LEVEL AND GRAVIMETRIC MEASUREMENTS, ALONG WITH IN-SITU ARGO PROFILES, ENABLE THE ESTIMATION OF CHANGES IN THE GLOBAL WATER-ENERGY CYCLE AND THE CONSTRAINING OF CLIMATE SENSITIVITY	Benoit Meyssignac	LEGOS/CNES
Meyssignac B1, Chenal J, Guillaume-Castel R, Fourest S, Blazquez A 1Legos/cnes					
10:55	11:10	15	DEEP STERIC SEA LEVEL VARIABILITY INFERRED FROM SATELLITE OBSERVATIONS, OCEAN REANALYSIS AND DEEP ARGO PROFILES	William Llovel	CNRS/LOPS
Llovel W1, Hochet A1, Zilberman N2, Steinberg J3 1CNRS/lops, 2Scripps Institution of Oceanography, 3Woods Hole Oceanographic Institution					
11:10	11:25	15	STERIC SEA LEVEL VARIATIONS IN THE DEEP WESTERN BOUNDARY CURRENT OF THE NORTHWEST ATLANTIC OCEAN REVEALED USING FULL-DEPTH IN SITU AND SATELLITE OBSERVATIONS	Nathalie Zilberman	Scripps Institution of Oceanography
Zilberman N1, Llovel W2, Steinberg J3, Meyssignac B4, Ablain M5, Hochet A2 1Scripps Institution of Oceanography, University of California San Diego, 2Laboratoire d'Océanographie Physique et Spatiale (LOPS), Univ. Brest, CNRS, IRD, Ifremer, IUEM, Brest, France., 3National Oceanic and Atmospheric Administration (NOAA) Geophysical Fluid Dynamic Laboratory (GFDL), Princeton, New Jersey, USA., 4Université de Toulouse, LEGOS (CNRS/CNRS/IRD/UT3), Toulouse, France., 5Magellium, Ramonville Saint-Agne, France.					
11:25	11:40	15	STERIC HEIGHT CONTRIBUTION TO INTRASEASONAL SEA SURFACE HEIGHT IN THE SOUTHWESTERN ATLANTIC	Laura Ruiz-Etcheverry	CIMA/CONICET-UBA
Ruiz-Etcheverry L1, Saraceno M1, Martinez M1 1CIMA/CONICET-UBA					
11:55	12:10	15	VARIABILITY OF THE FULL-DEPTH SEA LEVEL BUDGET IN THE SOUTHWEST PACIFIC BASIN USING DEEP ARGO	Paige Lavin	University of Maryland; NOAA/STAR
Lavin P1, 2, Johnson G3 1University of Maryland (CISESS), 2NOAA/STAR, 3NOAA/PMEL					
12:10	12:25	15	SIMULTANEOUS DYNAMICAL RECONSTRUCTIONS OF SEA SURFACE HEIGHT AND TEMPERATURE FROM MULTI-SENSOR SATELLITE OBSERVATIONS	Florian Le Guillou	ESA-ESRIN
Le Guillou F1, Rio M1, Ciani D2, Storto A2, Buongiorno Nardelli B2 1ESA-ESRIN, 2Consiglio Nazionale delle Ricerche, Istituto di Scienze Marine (CNR-ISMAR)					

12:20 14:00 01:40 **Lunch**

Day 3, WEDNESDAY 4 September 2024, Afternoon

Einstein Auditorium: Session 9.2 - Synergy

Co-chairs: William Llovel, Nathalie Zilberman

14:00	14:15	15	ASSESSING SPATIOTEMPORAL MISCLOSURE OF THE SEA LEVEL BUDGET THROUGH A COMPREHENSIVE ANALYSIS OF ALTIMETRY, TIME-VARIABLE GRAVITY, AND OCEAN SALINITY MEASUREMENTS	Michael Croteau	NASA Goddard Space Flight Center
Croteau M1, Beckley B1, Ray R1, Loomis B1, Lemoine F1 1NASA Goddard Space Flight Center					
14:15	14:30	15	GLOBAL OCEAN HEAT CONTENT: METHODS AND SOURCES OF UNCERTAINTY	Deirdre Byrne (on behalf of Tim Boyer)	NOAA/NESDIS
Boyer T1, Hakuba M2, Cheng L3, Reagan J1, Lavin P1,4, Roman-Stork H1,5, Meyssignac B6, Wang Z1, Locamini R1, Mishonov A1,4, Hogan P1, Byrne D1, Leuliette E1 1NOAA/NESDIS, 2NASA/JPL, 3Institute of Atmospheric Physics/International Center for Climate and Environment Sciences, 4Cooperative Institute for Satellite Earth System Studies, University of Maryland, 5Global Science and Technology, Inc, 6Université de Toulouse					
14:30	14:45	15	THE HISTORY OF NOAA'S NEAR REAL-TIME OCEAN HEAT CONTENT PRODUCTS	Deirdre Byrne	NOAA/NESDIS
Byrne D1, Shay L2, Trinanes J2,3,7, Maturi E4, Goni G4, Donahue D1, Trossman D1,5, Lavin P1,5, Zhang B1,6 1NOAA/NESDIS, 2University of Miami, 3NOAA/AOML, 4Retired, 5Cooperative Institute for Satellite Earth System Sciences, University of Maryland, 6Global Science and Technology, Inc., 7Dept. Electronics and Computer Sciences. Universidade de Santiago de Compostela					
14:45	15:00	15	LATEST IMPROVEMENTS IN ASSESSING THE GLOBAL OCEAN HEAT CONTENT AND EARTH ENERGY IMBALANCE FROM SPACE GEODETTIC DATA	Robin Fraudeau	Magellium
Fraudeau R1, Marti F1, Meyssignac B2, Blazquez A2, Fourest S2, Ablain M1, Rousseau V1, Lamicol G1, Restano M3, Sabia R4, Dibarbouré G5, Benveniste J6 1Magellium, 2LEGOS, Université de Toulouse, CNES, CNRS, UPS, IRD, 3SERCO/ESRIN, 4ESA-ESRIN, 5CNES, 6formerly, ESA-ESRIN					
15:00	15:15	15	SENSITIVITY OF CLIMATE SIGNALS TO ALTIMETRY MAPPING	Benoit Legresy	CSIRO Climate Science Centre
Legresy B1, Monselesan D1 1CSIRO Climate Science Centre					
15:15	15:30	15	IMPACT OF ALTIMETRY OBSERVATIONS ON GLOBAL AND REGIONAL OCEAN PREDICTION SYSTEMS FROM OCEANPREDICT	Elisabeth Remy	Mercator Ocean
Remy E1, Fujii Y2 1Mercator Ocean, 2MRI/JMA					

15:40 16:10 30 **Coffee Break**

Einstein Auditorium: Session 9.3 - Operational Oceanography

Co-chairs: Deirdre Byrne, Sarah Gille

16:10	16:30	20	AUSTRALIA'S REGIONAL SEAS AND HOW WE MONITOR THEM	David Griffin	CSIRO
Griffin D1, Semolini Pilo G1, Jones E1, Sandery P1 1CSiro					
16:30	16:50	20	USE OF ALTIMETER DATA IN A COUPLED DATA ASSIMILATION SYSTEM	Aikaterini Anesiadou	ECMWF
Semane N1, Browne P1, Massart S1, Abdalla S1, Anesiadou A1, Healy S1 1European Centre for Medium-Range Weather Forecasts					
16:50	17:10	20	SWOT VALIDATION IN THE WESTERN MEDITERRANEAN SEA WITH HIGH-RESOLUTION OBSERVATIONS AND MODELLING DURING THE FAST-SWOT FIELD CAMPAIGNS	Laura Gomez-Navarro	IMEDEA (UIB-CSIC)
Gomez-Navarro L1, Verger-Miralles E1, Barceló-Llull B1, Casas B2, Combes V1, Cutolo E3, Diaz-Barroso L2, Garcia-Jove M2, Lizarrán I2, Reyes E2, Tarry D4, Zarokanellos N2, Murre B1,2, Pascual A1 1IMEDEA (UIB-CSIC), 2SOCIB, 3IMT Atlantique, 4Applied Physics Laboratory and UW					
17:10	17:30	20	PHYTO- AND ZOO-PLANKTON RESPONSE TO EDDIES IN THE NORTH ATLANTIC	Graham Quartly	PML
Han G1, Quartly G1, Chen G1, Yang J1 1Plymouth Marine Laboratory					
17:30	17:50	20	COMPARISON OF HF RADAR MEASUREMENTS WITH AIS-DERIVED SURFACE CURRENTS, GLORYS REANALYSIS, AND GLOBCURRENT ANALYSIS IN THE AGULHAS CURRENT REGION	Yann Guichoux	Eodym
Guichoux Y1, Jan g1 1Eodym					

19:30 23:00 03:30 **SYMPOSIUM DINNER - Le Château de Pouget (buses from Corum will leave at 18:45)** Sponsored by EUMETSAT

Day 3, WEDNESDAY 4 September 2024, Morning

Barthez: Session 8.4 - Building the 30 Year Record

Co-chairs: Bruce Haines, Cristina Martin-Puig

08:30	08:50	20	SEA-LEVEL RECONSTRUCTION AT THE REGIONAL SCALE OVER THE LAST SEVEN DECADES	C K Shum	Division of Geodetic Science, School of Earth Sciences, The Ohio State University
Shum C1, Wang S1, Lan W2, Kuo C3, Guo J1 1Division of Geodetic Science, School of Earth Sciences, Ohio State University, 2Department of Civil Engineering, National Kaohsiung University of Science and Technology, 3Department of Geomatics, National Cheng Kung University					
08:50	09:10	20	30 YEARS OF SEA LEVEL MULTI-MISSION REPROCESSED TO IMPROVE CLIMATE AND MESOSCALE SATELLITE DATA RECORD	Cecile Kocha	CLS
Kocha C1, Lievin M1, Philipps S1, Pageot Y4, Rubin C5, Dibarboure G2, Nogueira-Loddo C3, Denis I2, Guinle T2 1CLS, 2CNES Centre National d'Etudes Spatiales, 3EUMETSAT, 4CELAD, 5ALTEN					
09:10	09:30	20	THIRTY-YEAR TRENDS IN OCEAN TIDES: RETRACKED TOPEX TO SENTINEL-6, WITH AN ASSORTMENT OF POTENTIAL SYSTEMATIC ERRORS	Richard Ray	NASA Goddard Space Flight Center
Ray R1 1NASA Goddard Space Flight Center					
09:30	09:50	20	FROM 30 YEARS OF STABLE SEA LEVEL ALTIMETRY MEASUREMENTS TO ACCURATE ESTIMATES OF THE EARTH ENERGY IMBALANCE	Michaël Ablain	Magellium
Ablain M1, Meyssignac B2, Fraudeau R1, Marti F1, Rousseau V1, Barnoud A1, Bouih M1, Lalau N1, Pfeffer J1, Szczypka C1, Vaujour T1, Blazquez A2, Fourst S2, Prandi P3, Quiet V3, Mangilli A3, Dibarboure G4, Egidio A5, Donlon C5, Benveniste J6 1Magellium, 2LEGOS, CNES, CNRS, IRD, Université Paul Sabatier, 3CLS, 4CNES, 5ESA-ESTEC, 6Formerly, ESA-ESRIN					
09:50	10:10	20	IAS PILOT SERVICE FOR SCIENTIFIC AND GEODETIC APPLICATIONS	Xiaoli Deng	University of Newcastle
Deng X1, Shum C2, Benveniste J3, Vignudelli S4 1University of Newcastle, 2Ohio State University, 3Formerly, ESA-ESRIN, 4Consiglio Nazionale delle Ricerche					
10:10	10:40	30	Coffee Break		

Barthez: Session 13.1 - S3VT-S6VT-OSTST Technical Presentations

Co-chairs: Alejandro Egidio, Cristina Martin Puig

10:40	11:00	20	ASSESSMENT OF SENTINEL-6 MF SAR MODE AND REPROCESSED JASON-3 LRM SEA LEVEL MEASUREMENTS OVER GLOBAL COASTAL OCEANS	Fukai Peng	Tongji University
Peng F1, Deng X2, Shen Y1 1Tongji University, 2The University of Newcastle					
11:00	11:20	20	SENTINEL-6/MICHAEL FREILICH PERFORMANCES ASSESSMENT OVER INLAND WATERS DURING TANDEM PHASE WITH JASON-3	Nicolas Taburet	CLS
Taburet N1, Moreau T1, Boy F2 1CLS, 2CNES					
11:20	11:40	20	SENTINEL-3 STM MPC: PERFORMANCE OF THE S3A AND S3B SURFACE TOPOGRAPHY MISSION OVER SEA-ICE	Sara Fleury	LEGOS/CNRS
Fleury S1, Piras F2, Hendricks S3, Megain T1, Aublanc J2, Femenias P4 1LEGOS/CNRS, 2CLS, 3AWI, 4ESA/ESRIN					
11:40	12:00	20	IMPROVEMENTS OF OCEAN RETRACKER SOLUTIONS FOR THE REFERENCE MISSIONS: OVERVIEW, RESULTS AND PERSPECTIVES	Anna Mangilli	CLS
Mangilli A1, Moreau T1, Piras F1, Daguzé J1, Thibaut P1, Maraldi C2, Boy F2, Bignalet-Cazalet F2, Picot N2 1CLS, 2CNES					
12:00	12:20	20	PERFORMANCE ASSESSMENT OF SENTINEL-3 HIGH LATITUDE OBSERVATIONS FOR THE FUTURE POLAR OCEAN PRODUCTS	Lucia Rinchiuso	CLS
Rinchiuso L1, Prandi P1, Durand C3, Nencioli F1, Alves M1, Daguzé J1, Lucas B2, Dinardo S2 1Collecte Localisation Satellites (CLS), 2EUMETSAT, 3CELAD					

12:20 14:00 01:40

Lunch

Day 3, WEDNESDAY 4 September 2024, Afternoon

Barthez: Session 13.2 - S3VT-S6VT-OSTST Technical Presentations

Co-chairs: Pierre Femenias, Remko Scharroo

14:00	14:20	20	SWELL CHARACTERIZATION FROM SENTINEL-3 AND SENTINEL-6MF SAR ALTIMETRY DATA	Laetitia Rodet	CLS
Rodet L1, Moreau T1, Altiparmaki O2, Ehlers F3, Maraldi C4, Boy F4, Picot N4 1CLS, 2Astrodynamics and Space Mission, Delft University of Technology, 3Geoscience and Remote Sensing, Delft University of Technology, 4CNES					
14:20	14:40	20	A FAST-TIME COMPLEX CORRECTION FOR THE END-TO-END RANGE IMPULSE RESPONSE OF THE SENTINEL-3 AND SENTINEL-6 ALTIMETER SYSTEMS	Albert García-Mondéjar	isardSAT
García-Mondéjar A1, Dinardo S2, Gómez Olivé A1, García P1, Formari M3, Cullen R4, Martin Puig C2, Scharroo R2 1isardSAT, 2EUMETSAT, 3RHEA / ESA - ESTEC, 4ESA - ESTEC					
14:40	15:00	20	ENHANCING SAR ALTIMETRY PRODUCTS THROUGH CORRELATION-INFORMED STRATEGIES	Frithjof Ehlers	Geoscience and Remote Sensing, Delft University Of Technology
Ehlers F1, Slobbe C1, Moreau T2, Rodet L2, Alves M2, Maraldi C3, Verlaan M4 1Geoscience and Remote Sensing, Delft University Of Technology, 2CLS, 3CNES, 4Mathematical Physics, Delft University of Technology					
15:00	15:20	20	TIDE GAUGE COMPARISONS FOR SENTINEL-3 AND SENTINEL-6	Eric Leuliette	NOAA
Leuliette E1, Plagge A1 1NOAA					
15:20	15:40	20	TOWARDS A RECONCILIATION OF THE LRM AND SAR ALTIMETRY OCEAN MEASUREMENTS IN AN OPERATIONAL CONTEXT FOR SENTINEL-3	Salvatore Dinardo	EUMETSAT
Dinardo S1, Scharroo R1, Lucas B1 1EUMETSAT					

15:40 16:10 30

Coffee Break

Barthez: Session 13.3 - S3VT-S6VT-OSTST Technical Presentations

Co-chairs: Eric Leuliette, Bruno Lucas

16:10	16:30	20	COASTAL EVALUATION OF THE FIRST THREE YEARS OF SENTINEL-6MF HIGH-RESOLUTION WET TROPOSPHERIC CORRECTION	Telmo Vieira	DGAOT
Vieira T1,2, Fernandes J1,2, Aguiar P1,2, Lázaro C1,2 1DGAOT, Faculdade de Ciências, Universidade do Porto, 2Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR)					
16:30	16:50	20	REFINING THE ACCURACY AND STABILITY OF TROPOSPHERIC CORRECTIONS FOR SATELLITE ALTIMETRY OVER COASTAL ZONES AND CONTINENTAL SURFACES	Joana Fernandes	DGAOT
Fernandes J1,2, Vieira T1,2, Aguiar P1,2, Lázaro C1,2 1DGAOT, Faculdade de Ciências, Universidade do Porto, 2Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR)					
16:50	17:10	20	VALIDATION OF LONG-TERM MICROWAVE RADIOMETER MEASUREMENTS OF DIFFERENT ALTIMETRY MISSIONS FOR WET TROPOSPHERE PATH DELAY RETRIEVALS	Bin Zhang	Global Science & Technology
Zhang B1, Leuliette E 1Global Science & Technology, Inc.					
17:10	17:30	20	PERFORMANCE OF THE RADIOMETERS ON SENTINEL-6 AND SWOT FOR WET PATH DELAY CORRECTION	Shannon Brown	JPL
Brown S1, Chae C 1Jet Propulsion Laboratory					
17:30	17:50	20	GDR-G ALTIMETRY STANDARDS	Bruno Lucas	EUMETSAT
Lucas B1, Bignalet-Cazalet F2, Di Bella A3, Cullen R4, Maraldi C2, Leuliette E5, Desjournes J6, Martin Puig C1 1Eumetsat, 2CNES, 3Randstad for ESA/ESRIN, 4ESA/ESTEC, 5NOAA, 6NASA/JPL					
19:30	23:00	03:30	SYMPOSIUM DINNER - Le Château de Pouget (buses from Corum will leave at 18:45)		Sponsored by EUMETSAT

Day 3, WEDNESDAY 4 September 2024, Morning

Rondelet: Session 5.1 - Geodesy: MSS, GEOID, MDT, POD

Co-chairs: Ole Baltazar Andersen, Sean Bruinsma, Marie-Hélène Rio

08:30	08:50	20	CONSISTENT MEAN SEA SURFACE AND SEA LEVEL CHANGE ESTIMATION IN THE ERA OF CLIMATE CHANGE – OUTLOOK TO SWOT	Ole Baltazar Andersen	DTU Space
Andersen O1, Nilsson B1, Nerem S2 1DTU Space, 2Colorado Center for Astrodynamic Research, U. Colorado					
08:50	09:10	20	GLOBAL MARINE GRAVITY RECOVERY USING SWOT WIDE-SWATH ALTIMETRY	Yao Yu	UCSD
Yu Y1, Sandwell D1 1Ucsd					
09:10	09:30	20	INVESTIGATION OF SWOT ALTIMETRY FOR THE IMPROVED MARINE GRAVITY FIELD OFFSHORE THE WESTERN AUSTRALIA	Mao Zhou	The University of Newcastle
Zhou M, Deng X, Andersen O, Salajegheh F, Jin T 1The University of Newcastle, Australia; Wuhan University, China					
09:30	09:50	20	MAPPING THE DIRECTIONAL SEA SURFACE SLOPES WITH SWOT AND ICESAT-2	Bjarke Nilsson	DTU Space
Nilsson B1, Andersen O1 1DTU Space, National Space Institute					
09:50	10:10	20	COMPARISON OF SLR BIASES DETERMINED FROM SATELLITE ALTIMETRY AND GEOIDETIC SPHERES	Eléonore Saquet	CLS
Saquet E1,2, Couhert A2,3, Reinquin F2,3, Banos Garcia A1,2 1CLS, 2Centre National d'Études Spatiales, 3GET-Université de Toulouse (CNES, CNRS, IRD, UPS)					

10:10 10:40 30 **Coffee Break**

Rondelet: Session 5.2 - Geodesy: MSS, GEOID, MDT, POD

Co-chairs: Alexandre Couhert, Michiel Otten, CK Shum

10:40	11:00	20	GPS-BASED PRECISE ORBIT DETERMINATION OF THE SENTINEL-6 MF AND JASON-3 MISSIONS	Alex Conrad	NASA Jet Propulsion Laboratory
Conrad A1, Desai S1, Haines B1 1NASA Jet Propulsion Laboratory					
11:00	11:20	20	ASSESSMENT OF SENTINEL-3A AND SENTINEL-3B RESIDUAL RADIATION PRESSURE MODELING ERRORS	Marie Cherrier	CLS
Cherrier M1,2, Couhert A2,3, Mercier F2,3, Saquet E1,2					
11:20	11:40	20	PROGRESS IN PRECISE ORBIT DETERMINATION OF ALTIMETRY SATELLITES	Sergei Rudenko	DGFI-TUM
Rudenko S1, Dettmring D1, Bloßfeld M1, Zeitthöfler J1, Kehm A1 1Deutsches Geodätisches Forschungsinstitut, Technical University of Munich (DGFI-TUM)					
11:40	12:00	20	ASSESSING ATMOSPHERE AND OCEAN DE-ALIASING MODEL UNCERTAINTY FOR PRECISE EARTH OBSERVATION	Weihsang Zhang	Huazhong University of Science and Technology
Zhang W1, Yang F1,2, Luo Z1 1Huazhong University of Science and Technology, 2Aalborg University					
12:00	12:20	20	REVISITING THE GEOCENTER MOTION FOR AND FROM SATELLITE ALTIMETRY	Alexandre Couhert	CNES
Couhert A1,2, Moyard J1, Mercier F1,2, Exertier P2 1CNES, 2GET-Université de Toulouse (CNES, CNRS, IRD, UPS)					

12:20 14:00 01:40 **Lunch**

Day 3, WEDNESDAY 4 September 2024, Afternoon

Rondelet: Session 12.1 - IDS Workshop

Co-chairs: Cécile Manfredi, Jérôme Saunier

14:00	14:05	5	Welcome		
14:05	14:20	15	IDS NEWS	Laurent Soudarin	CLS
Soudarin L1, Boniface C2, Lemoine F3, Moreaux G1, Saunier J4 1CLS, 2CNES, 3NASA/GSFC, 4IGN					
14:20	14:35	15	DORIS SYSTEM STATUS IN 2024 AND FUTURE PROSPECTS	Cécile Manfredi	CNES
Didelot F1, MANFREDI C1 1Cnes					
14:35	14:50	15	DORIS NETWORK 2024 STATUS REPORT	Jérôme Saunier	IGN
Saunier J1 1IGN					
14:50	15:10	20	QUALITY ASSESSMENT OF DORIS STATIONS ENVIRONMENT BASED ON POD RESIDUALS AND SIGNAL INTENSITY VARIATIONS	Philippe Yaya	CLS
Yaya P1					
15:10	15:25	15	DORIS STATIONS CO-LOCATION: STATUS AND RESULTS	Jérôme Saunier	IGN
Saunier J1, Moreaux G2, Garcia V3, Pesce D1 1IGN, 2CLS, 3CNES					
15:25	15:30	5	Co-located space geodetic techniques observatory in India: progress toward installation of the IDS scientific station (poster flash presentation)	Vikash Kumar	NCG-IITK
Goyal R1, Saunier J2, Kumar V1, Dikshit O1, Balasubramanian N1 1National Centre for Geodesy, Indian Institute of Technology Kanpur, Kanpur, India, 2Institut national de l'information géographique et forestière					
15:30	15:35	5	NASA's CDDIS: 2024 Status Update (poster flash presentation)	Taylor Yates	SSAI
Yates T1 1SSAI					

15:40 16:10 30 **Coffee Break**

Rondelet: Session 12.2 - IDS Workshop

Co-chairs: Guilhem Moreaux, Petr Stepanek

16:10	16:30	20	ITRF2020 UPDATES AND THE IDS CONTRIBUTION	Zuheir Altamimi	IGN-IPGP
Altamimi Z1, Rebeschung P1, Collilieux X1, Métivier L1, Chanard K1 1IGN-IPGP					
16:30	16:45	15	DTRF2020 UPDATE: CHALLENGES AND FIRST RESULTS	Manuela Seitz	DGFI-TUM
Seitz M1, Bloßfeld M, Glomsda M, Angermann D, Rudenko S, Zeitthöfler J 1DGFI-TUM					
16:45	17:00	15	DORIS EVALUATION OF THE FIRST ITRF2020 UPDATE	Guilhem Moreaux	CLS
Moreaux G1 1CLS					
17:00	17:15	15	RECENT UPDATES AT THE GSC DORIS ANALYSIS CENTER	Frank Lemoine	CNES
Lemoine F1, Chinn D2,1, Zelensky N3,1, Yang X2,1 1NASA Goddard Space Flight Center, 2GBR Inc., 3ESSIC/University of Maryland					
17:15	17:30	15	GOP ANALYSIS CENTER: DORIS DATA ANALYSIS STRATEGY AND INNOVATIONS	Petr Stepanek	VUGTK
Stepanek P1, Filler V1, Kumar V2 1Research Institute of Geodesy, Topography and Cartography, 2Indian Institute of Technology					
17:30	17:45	15	LATEST CNES/CLS IDS ANALYSIS CENTER SOLUTION UPDATES	Hugues Capdeville	CLS
Capdeville H1, Mezerette A1, Lemoine J2 1CLS, 2CNES					

19:30 23:00 03:30 **SYMPOSIUM DINNER - Le Château de Pouget (buses from Corum will leave at 18:45)** Sponsored by EUMETSAT

Day 4, Thursday 5 September 2024, Morning					
Pasteur Auditorium: Session 11.1 - Outlook (future missions)					
Co-chairs: Paolo Cipollini, Lee-Lueng Fu					
08:30	08:50	20	SWATH ALTIMETRY: HOW WE GOT HERE AND WHERE MIGHT WE GO?	Rosemary Morrow (on behalf of Ernesto Rodriguez)	LEGOS JPL
			Rodriguez E1, Morrow R2 1Jet Propulsion Laboratory, 2LEGOS		
08:50	09:10	20	MEASURING SIGNIFICANT WAVE HEIGHT FIELDS IN TWO DIMENSIONS AT KILOMETRIC SCALES WITH SWOT	Alejandro Bohe	CNES
			Bohe A1, Chen A2, Chen C2, Dibarboure G1, Dubois P6, Fore A2, Hajj G2, Hay A5, Legresy B4, Lenain L3, Molero B6, Peral E2, Raynal M1, Stiles B2 1CNES, 2Jet Propulsion Laboratory, California Institute of Technology, 3Scripps Institution of Oceanography, UC San Diego, 4CSIRO, 5University of Tasmania, 6CLS		
09:10	09:30	20	BLENDING 2D TOPOGRAPHY IMAGES FROM SWOT INTO THE ALTIMETER CONSTELLATION WITH THE LEVEL-3 MULTI-MISSION DUACS SYSTEM	M-Isabelle Pujol	CLS
			Dibarboure G2, Briol F1, Chevrier R1, Delepouille A1, Faugere Y2, Morrow R3, Picot N2, Prandi P1, Pujol M1, Raynal M2, Treboute A1, Ubelmann C4 1CLS, 2CNES, 3LEGOS, 4Atlas		
09:30	09:50	20	DYNAMICAL MAPPING OF SWOT: PERFORMANCES FROM REAL OBSERVATIONS	Florian Le Guillou	ESA
			Le Guillou F1, Ubelmann C2, Ballarotta M4, Cosme E3, Metref S2, Rio M1 1ESA-ESRIN, 2Atlas, 3Institut des Geosciences et de l'Environnement (IGE), 4Collecte Localisation Satellite (CLS)		
09:50	10:10	20	THE NEXT GENERATION COPERNICUS ALTIMETRY MISSIONS: ENHANCING CONTINUITY, PERFORMANCE AND OBSERVATIONAL CAPABILITIES	Alejandro Egido	ESA
			Egido A1 1ESA		
10:10	10:40	30	Coffee Break		
10:40	12:20	01:40	Poster Session		
12:20	14:00	01:40	Lunch		

Day 4, Thursday 5 September 2024, Afternoon					
Pasteur Auditorium: Session 11.2 - Outlook (future missions)					
Co-chairs: Alejandro Egido, Nicolas Picot					
14:00	14:20	20	PERFORMANCES OF THE SWATH ALTIMETER SAOOH ON BOARD THE SENTINEL 3 NEXT GENERATION TOPOGRAPHY MISSION	Franck Demeestere	Thales Alenia Space
			Demeestere F1, Houpert A1, Phalippou L1, Deschoux-Beaume M1, Rey L1, Rys L1, Dubois P2, Amarouch L2, Thibaut P2, Vuilleumier P3, Egido A3 1Thales Alenia Space, 2CLS, 3ESA/ESTEC		
14:20	14:40	20	THE CRISTAL MISSION FOR CRYOSPHERIC SCIENCE, OCEANOGRAPHY AND HYDROLOGY: FEATURES, DESIGN AND EXPECTED PERFORMANCE	Paolo Cipollini	ESA
			Cipollini P1, Berdahl M2, Borde F1, Bouffard J3, Brown S4, Casal T1, Di Bella A3, Farrell S5, Fleury S6, Fournier S4, Gantois K1, Gracheva V1, Humbert A7, Kacimi S4, Khlystova I1, March G1, Martin Puig C8, Miniscalco R1, Rinne E9, Scagliola M3, Shepherd A10, Skourup H11, Tilling R5,12, Vaze P4, Wouters B13, Yackel J14, Zelli C1, Zuo H15 1ESA-ESTEC, 2DG-DEFIS European Commission, 3ESA-ESRIN, 4Jet Propulsion Laboratory, California Institute of Technology, 5University of Maryland, 6LEGOS/CNRS, 7Alfred Wegener Institute, 8EUMETSAT, 9The University Centre in Svalbard, 10Northumbria University, 11DTU Space, National Space Institute, 12NASA Goddard Space Flight Center, 13Ulrecht University, 14University of Calgary, 15ECMWF		
14:40	15:00	20	CRISTAL PERFORMANCE ASSESSMENT: AN END-TO-END SIMULATION APPROACH	Albert Garcia-Mondéjar	isardSAT
			García-Mondéjar A1, Moyano G1, Urien S1, López-Zaragoza J1, Izzo A2, Recchia L2, Guccione P2, Lieb V3, Mank E3, Fornari M4, Scagliola M5, Di Bella A5, Bouffard J6, Cipollini P7, Zelli C7, Borde F7 1isardSAT, 2ARESYS, 3Airbus Defence and Space, 4RHEA / ESA-ESTEC, 5RHEA / ESA-ESRIN, 6ESA-ESRIN, 7ESA-ESTEC		
15:00	15:20	20	DAILY MONITORING OF INLAND SURFACE WATERS WITH A CONSTELLATION OF SMALL ALTIMETRY SATELLITES (SMASH)	Sylvain Biancamaria	LEGOS/CNRS
			Biancamaria S1, Calmant S1, David C2, Frappart F3, Garambois P4, Gosset M5, Grippa M5, Kouraev A1, Malaterre P6, Moreira D7, Munier S8, Papa F1, Yésou H9, Gal L10, Pedinotti V11, Amiot T12, Cheymol C12 1LEGOS, 2JPL/Caltech, 3ISPA, 4RECOVER, 5GET, 6G-EAU, 7CPRM, 8CNRM, 9ICUBE, 10Hydro Matters, 11Magellum, 12CNES		
15:20	15:40	20	AN OVERVIEW OF THE SWOT TECHNOLOGICAL BREAKTHROUGH: A PERSPECTIVE OF MAIN DIFFERENCES WITH RESPECT TO NADIR ALTIMETRY OVER OCEAN	Matthias Raynal	CNES
			Raynal M1 1CNES		
15:40	16:10	30	Coffee Break		
Pasteur Auditorium: Open Discussion					
16:10	17:50		Open Discussion on Future Science in all Themes		

Day 4, Thursday 5 September 2024, Morning					
Einstein Auditorium: Session 9.4 - Operational Oceanography					
Co-chairs: Deirdre Byrne, Sarah Gille					
08:30	08:50	20	EVALUATION OF SWOT SEA LEVEL DATA IN THE COASTAL AREAS OF THE BALTIC SEA	Nicole Delpêche-Ellmann	Tallinn University of Technology
			Kupavõh A1, Delpêche-Ellmann N2, Ellmann A1 1Department of Civil Engineering and Architecture, Tallinn University of Technology, Estonia, 2Department of Cybernetics, School of Science, Tallinn University of Technology, Estonia		
08:50	09:10	20	OCEAN MESOSCALE HOT-SPOT AT THE NORDIC HIGH LATITUDES: THE LOFOTEN BASIN	Antonio Bonaduce	Nansen Environmental and Remote Sensing Center
			Bonaduce A1, P. Raj R1, Mangini F1, Moiseev A1, P. Moner L1, A. Johannessen J1 1Nansen Environmental and Remote Sensing Center		
09:10	09:30	20	CONTRIBUTION OF THE OPEN OCEAN TO SEA-LEVEL VARIATIONS OVER THE NORWEGIAN CONTINENTAL SHELF	Fabio Mangini	Nansen Environmental and Remote Sensing Center
			Mangini F1, Bonaduce A, P. Raj R 1Nansen Environmental and Remote Sensing Center		
09:30	09:50	20	GRIDDING OF SEA LEVEL ANOMALIES USING COLLOCATED CO-VARIABLES	Marie-Christin Juhl	DGFI-TUM
			Juhl M1, Passaro M, Dettmering D 1DGFI-TUM		
09:50	10:10	20	SUBMESOSCALE-TO-MESOSCALE VARIABILITY IN THE CALIFORNIA CURRENT SYSTEM: FINDINGS FROM SWOT ASSIMILATION	Sarah Gille	University of California San Diego
			Gille S1, Verdy A1, Mazloff M1, Cornuelle B1, Gopalakrishnan G1, Gutierrez-Villanueva M1, Soares S1 1University of California San Diego		
10:10	10:40	30	Coffee Break		
10:40	12:20	01:40	Poster Session		
12:20	14:00	01:40	Lunch		

Day 4, Thursday 5 September 2024, Morning

Barthez: Session 13.4 - S3VT-S6VT-OSTST Technical Presentations

Co-chairs: Josh Willis, Claire Maraldi

08:30	08:50	20	COPERNICUS POD SERVICE: STATUS OF COPERNICUS SENTINEL SATELLITE ORBIT DETERMINATION	Carlos Fernandez	GMV Aerospace & Defence
Fernandez C1, Muñoz M1, Fernandez J1, Peter H2, Femenias P3, Nogueira-Loddo C4 1GMV Aerospace & Defence, 2PosiTim UG, 3ESA/ESRIN, 4EUMETSAT					
08:50	09:10	20	POD STATUS FOR THE REFERENCE MISSIONS AND THE DETERMINATION OF GLOBAL MEAN SEA LEVEL	Frank Lemoine	NASA Goddard Space Flight Center
Lemoine F1, Zelensky N2, Beckley B3, Yang X3, Thomas T4, Luthcke S1, Pennington T3, Chinn D3 1NASA Goddard Space Flight Center, 2ESSIC/University of Maryland, 3KBR Inc., 4SAIC					
09:10	09:30	20	THE HARVEST EXPERIMENT AFTER THIRTY YEARS: CHALLENGES AND NEW PERSPECTIVES	Bruce Haines	NASA
Haines B1, Desai S1, Desjonqueres J1, Wu A1, Stalin S2 1Jet Propulsion Laboratory, California Institute of Technology, 2NOAA, Pacific Marine Environmental Laboratory					
09:30	09:50	20	START: FIDUCIAL REFERENCE MEASUREMENTS FOR SENTINEL-3 LAND ALTIMETRY	Claire Miller	NOVELTIS
Miller C1, Le Merle E1, Poisson J2, Picot N3, Skourup H4, Fleury S12, Picard G5, Moholdt G6, Woolliams E7, Munesa E1, Ferrari R1, Segura D1, Sabalbal J1, Fouquereau V2, Mikolajczak G2, Hahn J2, Yanez C3, Lefebvre J3, Fredensborg Hansen R4, Simonsen S4, Hvidegaard S4, Favier V5, Arnaud L5, Lemeur E5, Behnia S7, Haas C8, Krumpfen T8, Neudert M8, Taburet N9, Renou J9, Chappellier M9, Aublanc J9, Tarpanelli A10, Sneeuw N11, Tournan M11, Foster J11, Vivier F13, Lourenco A13, Ricker R14, Rydeng Jensen R14, Yésou H15, Azzoni M15, Amzil S15, Le Dauphin T15, Bonnefond P16, Laurain O16, El Hajj M1, Catapano F17, Femenias P18					
09:50	10:10	20	CORNER REFLECTORS FOR RADAR ALTIMETER EXTERNAL CALIBRATION: LESSONS LEARNT FROM THE FIRST THREE YEARS OF MEASUREMENTS AT THE MONTSEC CALIBRATION FACILITY	Ferran Gibert	isardSAT S.L
Gibert F1, Gómez Olivé A1, García-Mondéjar A1, Flores de la Cruz A1, Hernández S1, Vendrell E1, Roca i Aparici M1 1isardSAT S.L					

10:10 10:40 30 **Coffee Break**

10:40 12:20 01:40 **Poster Session**

12:20 14:00 01:40 **Lunch**

Day 4, Thursday 5 September 2024, Morning

Rondelet: Session 12.3 - IDS Workshop

Co-chairs: Alexandre Couhert, Frank Lemoine

08:30	08:50	20	PRECISE ORBIT DETERMINATION OF ALTIMETRY SATELLITES USING DORIS AND SLR OBSERVATIONS IN DIFFERENT REFERENCE FRAME REALISATIONS	Julian Zeithöffer	DGFI-TUM
Zeithöffer J1, Bloßfeld M1, Rudenko S1 1DGFI-TUM					
08:50	09:10	20	PROGRESS REPORT AND LESSONS LEARNED FROM DEVELOPING A DORIS POD SOFTWARE	Maria Tsakiri	National Technical University of Athens
Papanikolaou X1, Tsakiri M1, Nahmani S2, Pollet A2, Anastasiou D1, Zacharis V1 1National Technical University of Athens (NTUA), 2Dionysos Satellite Observatory, 3Université de Paris, Institut de Physique du Globe de Paris (IPGP)					
09:10	09:30	20	IMPROVEMENTS IN THE PRECISE ORBIT DETERMINATION USING DORIS AND LASER DATA FOR CRYOSAT-2	Ernst Schrama	Delft University of Technology
Schrama E1, Visser P1 1Delft University Of Technology					
09:30	09:50	20	IMPACT OF THE SOUTH-ATLANTIC ANOMALY RADIATIONS ON DORIS ULTRA-STABLE OSCILLATOR: RESULTING EFFECTS ON DORIS MEASUREMENTS AND ORBIT DETERMINATION FOR SENTINEL-3A AND SENTINEL-6A	Théo Gravalon	CELAD/CLS
Nilsson B1, Andersen O1 1DTU Space, National Space Institute					
09:50	10:10	20	DORIS PROCESSING USING FOCUSPOD	Carlos Fernandez	GMV Aerospace & Defence
Fernandez C1, Fernandez M1, Varela M1, Fernandez J1, Peter H2, Femenias P3, Nogueira-Loddo C4 1GMV Aerospace & Defence, 2PosiTim, 3ESA/ESRIN, 4EUMETSAT					

10:10 10:40 30 **Coffee Break**

Rondelet: Session 12.4 - IDS Workshop

Co-chairs: Karine Le Bail, Ningbo Wang

10:40	11:00	20	THREE DECADES OF ALTIMETRY ORBITS: CONSISTENT DORIS-BASED ORBIT SERIES AND VALIDATION	Patrick Schreiner	Helmholtz Centre Potsdam, GFZ German Research Centre for Geosciences
Schreiner P1, Reinhold A1, Schöne T1, Esselborn S1, König R2 1Helmholtz Centre Potsdam, GFZ German Research					
11:00	11:20	20	DSO DORIS ANALYSIS SOFTWARE INTERMEDIATE OUTCOMES	Maria Tsakiri	National Technical University of Athens
Serelis G1, Anastasiou D1, Papanikolaou X1, Tsakiri M1, Zacharis V1, Krey V1 1National Technical University of Athens, Dionysos Satellite Observatory					
11:20	11:40	20	EVALUATING WEIGHTING STRATEGIES IN DORIS MEASUREMENT PROCESSING FOR GEODETIC APPLICATIONS	Samuel Nahmani	IGN - IPGP - CNRS
Nahmani S1, Z, Pollet A1,2, Bertiger W3, Rebeschung P1,2, Lion G1,2 1Université Paris Cité, Institut de physique du globe de Paris, CNRS, IGN, 2Univ Gustave Eiffel, ENSG, IGN, 3Jet Propulsion Laboratory, California Institute of Technology					
11:40	12:00	20	EXPLORING STRATEGIES FOR AN OPTIMAL COMBINATION OF MONO-SATELLITE DORIS SOLUTIONS	Karine Le Bail	Chalmers University Of Technology / Onsala Space Observatory
Le Bail K1, Lemoine F, Morsaux G 1Chalmers University of Technology / Onsala Space Observatory					
12:00	12:20	12	ESTIMATION OF THE LENGTH OF DAY (LOD) FROM DORIS OBSERVATIONS	Vikash Kumar	Indian Institute of Technology
Kumar V1, Stepanek P2, Filler V2, Dikshit O1, Balasubramanian N1 1Indian Institute of Technology, Geoinformatics, Civil Engineering Department, Kanpur, India , 2Research Institute of Geodesy, Topography and Cartography					

12:20 14:00 01:40 **Lunch**

Day 4, Thursday 5 September 2024, Afternoon

Rondelet: Session 12.5 - IDS Workshop

Co-chairs: Karine Le Bail, Ningbo Wang

14:00	14:20	20	EVALUATION OF THE ZHD TROPOSPHERIC MODELLING WITH VMF1 ON DORIS ORBITS AND STATION COORDINATES	Adrian Banos Garcia	CLS
Banos Garcia A1 1CLS					
14:20	14:40	20	THE COOPERATIVE GLOBAL IONOSPHERIC MAP USING NEAR-REAL-TIME DORIS DATA	Ang Liu	Aerospace Information Research Institute Chinese Academy Of Science
Liu A1, Wang N1, Li Z1 1Aerospace Information Research Institute Chinese Academy Of Sciences					
14:40	15:00	20	EFFECT OF THE SECOND ORDER IONOSPHERIC DELAY ON PRECISE ORBIT DETERMINATION OF DORIS SATELLITES AND ON THE CNES/CLS IDS ANALYSIS CENTER	Adrien Mezerette	CLS
Mezerette A1, Capdeville H1, Lemoine J2					
15:00	15:20	20	CONTRIBUTION OF DORIS SYSTEM TO GLOBAL IONOSPHERIC SCINTILLATION MAPPING	Marie Cherrier	CLS
Cherrier M1, Yaya P1 1CLS					
15:20	15:40	20	Discussion		

15:40 16:10 30 **Coffee Break**

Rondelet: IDS Governing Board

16:10 18:15 02:05 **IDS Governing Board**

Day 5, Friday 6 September 2024, Morning

Pasteur Auditorium: ROUND TABLE #1 (Looking at the past, lesson learned and discussions on the 30 Year Record)

Invited Panelists: Sarah Gille (University of California San Diego), David Griffin (CSIRO), Rosemary Morrow (LEGOS), Steve Nerem (University of Colorado), Tamlin Paveleski (University of North Carolina), Eero Rinne (University Centre In Svalbard)

08:30 10:10 01:40

10:10 10:40 30 Coffee Break

Pasteur Auditorium: ROUND TABLE #2 (Future scientific challenges, open science questions, ...)

Invited Panelists: Michaël Ablain (Magellium), Paolo Cipollini, Cédric David (JPL), Yannice Faugère (CNES), Pierre-Yves Le Traon (Mercator Ocean), Eric Leuliette (NOAA), Estelle Obligis (EUMETSAT), Nadya Vinogradova Shiffer (NASA) - [CEOS OST-VC co-chairs: Yannice Faugère \(CNES\) Estelle Obligis \(EUMETSAT\)](#)

10:40 12:20 01:40

12:20 14:00 01:40 Lunch

Day 5, Friday 6 September 2024, Afternoon

Pasteur Auditorium: SYMPOSIUM PLENARY SESSION - session recommendations summaries

14:00 15:30 01:30 Theme 2: [summary and recommendations](#) – Theme 3: [summary and recommendations](#) – Theme 4: [summary and recommendations](#) – Theme 5: [summary and recommendations](#) – Theme 6: [summary and recommendations](#) – Theme 7: [summary and recommendations](#) – Theme 8: [summary and recommendations](#) – Theme 9: [summary and recommendations](#) – Theme 10: [summary and recommendations](#) – Theme 11: [summary and recommendations](#) – Theme 12: [summary](#) – Theme 13: [summary and recommendations](#)

15:30 16:00 30 Coffee Break

Pasteur Auditorium: SYMPOSIUM PLENARY SESSION - Final Discussion and general recommendations, Closing

16:00 17:30 01:30 [Closing](#)

17:30 Meeting Adjournment

Day 6, Saturday 7 September 2024

Einstein Auditorium: TRAINING

08:30 11:00 01:30 **On LRM, SAR and FFSAR altimetry processing & applications in coastal, inland water and polar Regions (PART 1) (PART 2)** Sergi Hernández (IsardSAT) and Marco Restano (Starion Group c/o ESA-ESRIN)

Summary:

Associated lectures will focus on FF-SAR theory & applications in all the altimetry domains and consider all the relevant missions (CryoSat-2, Sentinel-3 and Sentinel-6), datasets and synergies with other EO systems. A brief lecture on LRM and Unfocused SAR altimetry processing will introduce the role played by radar altimetry in Earth Observation to students having different competencies.

11:00 11:30 30 **Coffee Break**

Einstein Auditorium: TRAINING

11:30 13:00 01:30 **SWOT over ocean surfaces** Cyril Germineaud (CNES)

Summary:

As part of the release of the SWOT KaRIn Low Rate (Ocean) products, we will present a range of ocean-related applications along with basic access steps and SWOT-adapted tools available from CNES AVISO for optimal data use. More specifically, this presentation will showcase SWOT data dissemination through various means (i.e. download platforms, data visualization and exploration capabilities) from CNES AVISO services, including technical and thematic helpdesk support. The presentation will also showcase the dedicated CNES cloud infrastructure services that enable cloud-based scientific research related to SWOT ocean data. CNES cloud support includes, but is not limited to: (i) access to computing power with an efficient coding environment, (ii) ready-made Python-based scripts to explore SWOT ocean data with few lines of code, (iii) access to additional datasets useful for exploring SWOT data, and (iv) dedicated cloud-enabled support services.

1. SWOT LR (Low Rate, Oceanography) products: data products and applications (30')
2. Data access and related data usage services (15')
3. Presentation of ready-to-use tutorials (Jupyter notebooks) for the exploration and manipulation of SWOT LR data (30')
4. SWOT products and data usage perspectives and questions (15')

13:00 14:30 **Lunch** (off site - no host)

Einstein Auditorium: TRAINING

14:30 16:30 01:30 **SWOT over inland water surfaces (+ Additional Sources)** Mathilde Simeon (CNES)

Summary:

SWOT HR products are now publicly available. In this training, we will use different Jupyter notebook python scripts (python code) in order to help different users to access, explore, use and understand the data.

Different subjects will be covered during the training:

1. What are the different SWOT products and their related use.
2. How to access to the data through to distribution tools
3. What are the most common issues and questions to interpret the data
4. Presentation of some phenomenology (SWOT errors, dark water, etc...)
5. Questions session

16:30 17:00 30 **Coffee Break**

Einstein Auditorium: TRAINING

17:00 18:30 01:30 **Open questions, discussion, feedback, closing**

POSTER ID	POSTER PROGRAMME	Presenter	Abs. ID
Theme 1: 30 YEARS OF PROGRESS IN RADAR ALTIMETRY: A HISTORICAL PERSPECTIVE (KEYNOTE PRESENTATIONS)			
1	Perspectives on developing the Surface Water Ocean Topography Mission (SWOT) from concept to reality for observing Earth's precious water from space	Parag Vaze	79
2	30 years of altimetry Sea Level L3/L4 products record major improvements in recent decades	M-Isabelle Pujol	155
3	Impact of SWOT assimilation on Mercator Ocean International global forecasting system	Mounir Benkiran	182
4	Assimilation of SWOT data (1-day orbit) into Mercator Ocean International's global forecasting system	Ergane Fouchet	184
5	China's HY-2 Satellite Radar Altimetry Missions: Review and Prospect	Maofei Jiang	314
6	30 Years of Progress in Technology and Algorithms for the Altimetry Wet Tropospheric Path Delay Correction	Shannon Brown	416
7	Review and outlook for surface topography missions, applications, and services	Julia Figa Saldana	462
	Altimetry and the many scales of the ocean surface elevation: wave heights, wave groups, skewness, and sea level "noise"	Fabrice Ardhuin	215

POSTER ID	POSTER PROGRAMME	Presenter	Abs. ID
	Theme 2: ADVANCES IN OUR UNDERSTANDING OF THE DYNAMIC OCEAN		
8	SWOT's contribution to the study of coastal ocean circulation, and more specifically the north current (NW Mediterranean Sea)	Léna Tolu	11
9	Changing patterns in the Gulf Stream over the last three decades as observed in the altimetric record	Antonio Sanchez-Roman	20
10	The Average Impulse Response of a Sea Surface at the Oblique Sensing	Viadimir Karaev	29
11	A Deep Learning Approach to Separate Balanced and Unbalanced Motions from Sea Surface Height Snapshot	Zhanwen Gao	42
12	Monitoring Kuroshio meanders around the Izu Ridge by ferry-borne GNSS and SWOT altimetry data	Kaoru Ichikawa	52
13	Drivers of Halosteric Regional Sea Level Interannual Variations	Antoine Hochet	56
14	Meso and submesoscale dynamics : a new approach combining the Automatic Information System (AIS) data and SWOT data.	Camille Cardot	72
15	Short-term submesoscale eddy variations observed in SWOT KaRIn SLA fields	Xiaoyan Chen	74
16	Achieving sigma0 consistency for the entire TOPEX/Jason record	Graham Quartly	118
17	New definitions for the high frequency correlated noise in the Global Mean Sea Level uncertainty budget using SWOT CalVal phase data	Victor Quet	197
18	Ocean wind-wave parameters from SWIM-CFOSAT for downstream applications	Charles Peureux	219
19	Improvement of the Dynamic Atmospheric Correction facing the new challenges of the coastal regions and the high-resolution altimeter data	Loren Carrere	225
20	Robustness of altimetry-derived tidal amplitude trends to alternative mesoscale correction	Koen Haakman	233
21	Topological Lagrangian analysis from altimetric and elephant seal data	Juan Cruz Bonel	242
22	Dynamic response of the ocean surface to the passage of a tropical cyclone	Ljudmila Vanina-Dart	243
23	Ocean swell parameters retrieval using Sentinel-6 FF-SAR cross-spectra	Michel Guerra	247
24	Key Factors for Improving the Resolution of Mapped Sea Surface Height from Multi-Satellite Altimeters in the South China Sea	Xiaoya Zhang	249
25	On the utility of satellite altimetry in measuring the Florida Current volume transport	Denis Volkov	263
26	Assessing barotropic tides estimation from SWOT measurements	Eva Le Merle	264
27	Observing Upper-Ocean and Surface Properties, Currents and their Gradients from Meso to Submesoscales	Luc Lenain	268
28	SWOT 2D observations of the internal tide surface signature: an unprecedented insight of IT dynamics and IT corrections adequacy	Loren Carrere	297
29	Evaluating altimeter products for the computation of cross-shore geostrophic velocities against in-situ data	Saulo Soares	354
30	The role of Steric height in mesoscale activity in the Southwestern Atlantic Ocean derived from high resolution in situ data, satellite altimetry and a reanalysis model.	Melina M Martinez	437
31	An Evaluation of Recent Ocean Tide Models	Jason Otero Torres	465
32	On the Effects of Ocean Surface Motion on Delay-Doppler Altimetry	Louis Marie	474
33	Variability of Argentine Continental Shelf Currents in Southern Patagonia from In-situ Timeseries, Satellite Altimetry and GLORYS Reanalysis Outputs	Loreley Lago	475
34	Large-scale (and quasi-global) bottom pressure variations induced by oceanic Chaotic Intrinsic Variability	Thierry Penduff	481
35	Temporal and Spatial Variability of Eddy Kinetic Energy in the Southern Ocean	Jessica Caggiano	480
36	Joint role of the Natal pulse and large meanders of the Agulhas Return Current for the Early retroflection of the Agulhas Current	Johnny Johannessen	482

POSTER ID	POSTER PROGRAMME	Presenter	Abs. ID
	Theme 3: ADVANCES IN OUR UNDERSTANDING OF COASTAL PROCESSES		
37	Use of GNSS-IR to detect recent and historical storms surges in Hong Kong	Donglu Peng	53
38	Seasonal and Interannual Variability of Water Exchange Through the Kerch Strait Based on Radar Altimetry	Sergey Lebedev	77
39	Assessing the performance of SWOT altimetry against tide gauge observations in the western Mediterranean Sea	Diego Vega-Gimenez	35
40	Coastal altimetry products: from historical 1 Hz along-track data to virtual tide gauges	Fabien Léger	34
41	Synergy of fine-resolution regional model and SWOT measurements to study coastal dynamics	Nushrat Yeasmin	106
42	Towards an operational global coastal altimetry product: ALTiCAP (ALTimetry Innovative Coastal Approach Product)	Fabien Léger	160
43	Understanding tropospheric variability over short spatial scales in the coastal zone: Insights from the Bass Strait validation facility using SWOT swath altimetry	Andrea Hay	191
44	The Severn Estuary tidal bore from fast sampled SWOT data	Ole Baltazar Andersen	198
45	Upgraded Copernicus IRI wave reanalysis thanks to altimetry wave data	Louisa Louis	250
46	Coherent Modes of Global Coastal Sea Level Variability	Julius Oelsmann	342
47	Trends and acceleration of sea-level changes from GGOS Observations with PCA/ICA noise reduction algorithm	Xiaoxing He	353
48	Research on Two steps retracking algorithm for constructed waveforms of nearshore radar altimeter	Yongjun Ja	386
49	Evaluation of SWOT wide-swath products in the south Chesapeake Bay	Christopher Buchhaupt	436
50	Determination of the Lowest Astronomical Tide over the Algerian Coast and on the large of Western Mediterranean	Ali Rami	446
51	Global Lagoon Altimetry allows Improved Coastal Sea Level from Space	Stefano Vignudelli	456
52	CEOS COAST: Transformational Altimetry Earth Observation in Coastal Regions	Jérôme Benveniste	470
53	An Improvement to short term variability in Global Mean Sea level reconstruction	Andrew Shaw	478

POSTER ID	POSTER PROGRAMME	Presenter	Abs. ID
	Theme 4: ADVANCES IN OUR UNDERSTANDING OF THE POLAR OCEAN		
54	30 Years of Arctic Sea Level from Radar Altimetry: Assessing the Climate Change in the Arctic Region	Stine Kildgaard Rose	23
55	Enhanced Iceberg Measurements from CRISTAL mission	Juan Pedro López-Zaragoza	137
56	Assimilating CryoSat-2 FB to improve modeled sea ice thickness	Imke Sievers	168
57	Arctic Freshwater flux from altimetry and EO data	Ole Baltazar Andersen	192
58	Polar ocean MSS development combining radar and laser altimetry	Ole Baltazar Andersen	200
59	Polar Ocean tides from retracked Cryosat-2 altimetry.	Ole Baltazar Andersen	203
60	Retrieval of Sea Ice Concentration from Sentinel-3 AB MWR brightness temperatures	Morgane Farradèche	252
61	Classifying Arctic Ice Types Using Nadir-Observing Radiometer and Altimeter Data from the Marine Dynamic Environment Satellite HY-2B	Chengfei Jiang	313
62	Arctic and Southern Ocean sea level maps from satellite altimetry from 2011 to 2021	Pierre Veillard	330
63	CRISTAL Sea Ice & Iceberg L2 processing: Baseline approach and new developments	Steven G Baker	400

POSTER ID	POSTER PROGRAMME	Presenter	Abs. ID
Theme 5: ALTIMETRIC CONTRIBUTIONS TO GRAVITY FIELD, MARINE GEOID, BATHYMETRY MODELING AND ORBIT DETERMINATION			
64	The CNES-CLS-2024 free-air-marine-gravity-anomaly-model: a preliminary global solution.	Philippe Schaeffer	80
65	Mean-Sea-Surface-state-of-the-art-over-the-last-30-years.	Philippe Schaeffer	84
66	Bathymetry from SWOT and ICESat-2 – Case studies in Australia waters	Xiaoli Deng	157
67	Impact of POE-G orbits on Sentinel-6 MF and Jason-3 altimetric performances	Bastien Courcol	248
68	A new method of ocean gravity field model fusion based on water depth	Qiankun Liu	280
69	Precise Orbit Determination of HY-2D Satellite Using Onboard GNSS Data	Hailong Peng	290
70	Comparison of SLR biases determined from satellite altimetry and geodetic spheres	Eléonore Saquet	404

POSTER ID	POSTER PROGRAMME	Presenter	Abs. ID
	Theme 6: ALTIMETRY OVER LAND AND INLAND WATER		
71	DREAMing - from deserts to river basins	Phillipa Berry	14
72	Variability of water levels, areas, and volumes of the Southern Chilean lakes through Satellite Altimetry and its Interaction with Climate	Hayleen Cid	15
73	Estimation of the quality difference between Sentinel-6 and Jason-3 using the tandem phase over Polish rivers using a hydrodynamic model and gauging stations	Natalia Strojna	16
74	Ice cover and eddies in large deep seasonally-freezing Eurasian lakes: insights from satellite remote sensing and field observations	Alexei Kouraev	26
75	Remote Sensing-Based Extension of GRDC Discharge Time Series - A Monthly Product with Uncertainty Estimates	Omid Elmi	35
76	Validation of the satellite radar altimetry from ERS-1, ERS-2 and ENVISAT for Inland Water Thematic Data Product	Stefania Camici	37
77	Long term analysis of global surface water volume change using remote sensing data	Omid Elmi	38
78	Preliminary assessment of SWOT L2 Lake products over small water bodies in the Alsace and Lorraine regions (France)	Hervé Yésou	44
79	Insight into the dynamics of Sahelian shallow lakes with SWOT KaRIn	Felix Girard	46
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