
2023 Ocean Surface Topography Science Team Meeting

Tuesday, November 7 2023 - Saturday, November 11 2023

The 2023 Ocean Surface Topography Meeting will occur 7-11 November 2023 and will include a variety of science and technical splinters. These will include a special splinter on the Sentinel-6 Validation Team (S6VT) feedbacks (chaired by the Project Scientists), and a splinter on Coastal Altimetry. Sentinel-6A Michael Freilich being now the reference mission since April 2022, contributions that support this mission are highly encouraged. First results on SWOT (at least from nadir altimeter) are also very welcome.

We recall that all the presentations (oral or poster) will have their counterpart in the Forum. Please upload your presentation through your aviso account as soon as possible (<https://ostst.aviso.altimetry.fr/>, where your abstract was submitted) and at the latest at the end of the meeting.

Event's program

List of event's sessions

Tuesday, November 07 2023

14:00 - 17:30
OSTST Opening Plenary Session
Grande Beach Room (#208)

Wednesday, November 08 2023

09:00 - 12:30
Instrument Processing: Measurement and Retracking
Grande Beach Room (#208)

09:00 - 12:30
Precision Orbit Determination
Tortuga Beach Room (#209A)

14:00 - 15:45
Instrument Processing: Propagation, Wind Speed and Sea State Bias
Grande Beach Room (#208)

14:00 - 15:45
Outreach, Education and Altimetric Data Services
Tortuga Beach Room (#209A)

14:00 - 15:00
The Geoid, Mean Sea Surfaces and Mean Dynamic Topography (ROUND TABLE)
Crash Boat Beach Room (#209B)

16:15 - 18:00
Poster session part 1
Esperanza Beach Room (Lobby)

Thursday, November 09 2023

09:00 - 12:30
Regional and Global CALVAL for Assembling a Climate Data Record
Grande Beach Room (#208)

09:00 - 10:30
Coastal Altimetry
Tortuga Beach Room (#209A)

09:00 - 10:00
Application development for Operations (ROUND TABLE)
Crash Boat Beach Room (#209B)

11:00 - 12:30
Synergies between Argo, GRACE and Altimetry
Tortuga Beach Room (#209A)

11:00 - 12:00
Tides, internal tides and high-frequency processes (ROUND TABLE)
Crash Boat Beach Room (#209B)

14:00 - 18:00
Sentinel-6 Validation Team (S6VT) Meeting
Grande Beach Room (#208)

14:00 - 15:45
Poster session part 2
Esperanza Beach Room (Lobby)

Friday, November 10 2023

09:00 - 10:30
Discussion on the OSTST recommendations Or Sentinel-6 Validation Team (S6VT) feedback
Grande Beach Room (#208)

11:00 - 12:30

Science I: Understanding and Quantifying Regional and Global Sea Level Budgets
Grande Beach Room (#208)

11:00 - 12:00

CFO SAT (ROUND TABLE)
Crash Boat Beach Room (#209B)

14:00 - 15:45

Science II: Large Scale Ocean Circulation Variability and Change
Grande Beach Room (#208)

16:15 - 18:00

Science IV: Altimetry for Cryosphere and Hydrology
Tortuga Beach Room (#209A)

16:15 - 18:00

Science III: Mesoscale and sub-mesoscale oceanography
Grande Beach Room (#208)

Saturday, November 11 2023

09:00 - 12:30

OSTST Closing Plenary Session
Grande Beach Room (#208)

Oral sessions

Tuesday, November 07 2023

12:00 - 14:00: Registration and Presentation upload

OSTST Opening Plenary Session

Session chairs: Pascal Bonnefond, Craig Donlon, Alejandro Egido, Severine Fournier, Eric Leuliette, Remko Scharroo, Josh Willis
(Tue, Nov 07 2023, 14:00 - 17:30)

Grande Beach Room (#208)

14:00 - 14:05:

[Welcoming remarks and meeting overview](#)

Severine Fournier (JPL, United States)

14:05 - 14:30:

[NASA/CNES/EUMETSAT/NOAA/ESA program status](#)

Nadya Vinogradova-Shiffer (NASA, United States), Annick Sylvestre-Baron (CNES, France), Estelle Obligis (EUMETSAT, Germany), Chris Sisko (NOAA, United States of America), Jérôme Benveniste (ESA-ESRIN, Italy)

14:30 - 14:45:

[Jason-3 mission overview](#)

Christophe Ferrier (CNES, France)

14:45 - 15:00:

[Copernicus Sentinel-3 mission overview](#)

Bruno Lucas (EUMETSAT, Germany), Pierre Femenias (ESRIN/European Space Agency, Italy)

15:00 - 15:15:

[Sentinel-6 Michael Freilich mission overview](#)

Julia Figa Saldana (EUMETSAT, Germany), Pierrick Vuilleumier (ESA/ESTEC, The Netherlands), Parag Vaze (NASA/JPL, United States of America), Chris Sisko (NOAA, United States of America), Gilles Tavernier (CNES, France)

15:15 - 15:30:

[CFOSAT Mission Status](#)

Jean-Michel Lachiver (CNES, France), Lotfi Aouf (Météo-France, France)

15:30 - 16:00: Coffee break

16:00 - 16:15:

[Early oceanographic results from SWOT](#)

Lee-Lueng Fu (JPL, United States), Rosemary Morrow (LEGOS, France), Jean-François Cretaux (LEGOS/OMP/CNES, France), Tom Farrar (Woods Hole Oceanographic Institution, USA), T. Pavelsky (University of North Carolina, USA)

16:15 - 16:30:

[Overview and Status of the Copernicus Sentinel-3 Next Generation Topography \(S3NG-T\)](#)

[Mission](#)

Pierrick Vuilleumier (European Space Agency, ESTEC, Netherlands), Craig Donlon (ESTEC/ European Space Agency, Netherlands), Luisella Giulicchi (European Space Agency, ESTEC, Netherlands), Remko Scharroo (EUMETSAT, Germany)

16:30 - 16:45:

[CRISTAL Mission Status](#)

Paolo Cipollini (ESA/ESTEC, Netherlands), Cristina Martin-Puig (EUMETSAT, Germany), Jérôme Bouffard (ESA/ESRIN, Italy)

16:45 - 17:00:

[Argo and Sea level science: Present and Future Challenges](#)

Susan E Wijffels (Woods Hole Oceanographic Institution and the Argo Steering Team, United States), Nathalie Zilberman (Scripps Institution of Oceanography, USA)

17:00 - 17:15:

[Topics to be discussed in the splinters](#)

Eric Leuliette (NOAA, United States)

17:15 - 17:30: Keynote/invited

[Climate impacts on the island of Puerto Rico](#)

Fernando Pabón Rico (Caribbean Center for Rising Seas, Puerto Rico Science, Technology & Research Trust, Puerto Rico)

17:30 - 19:30: Icebreaker

08:00 - 09:00: Registration and Presentation upload

Instrument Processing: Measurement and Retracking

Session chairs: Francois Boy, Phil Callahan, Jean-Damien Desjonquieres, Alejandro Egido, Marco Fornari, Cristina Martin-Puig, Walter H.F. Smith
(Wed, Nov 08 2023, 09:00 - 12:30)

Grande Beach Room (#208)

09:00 - 09:20:

[Estimating vertical velocity variances from fully-focused SAR altimetry](#)

Ourania Altiparmaki (TU Delft, Netherlands), Samira Amraoui (Collecte Localisation Satellites (CLS), France), Marcel Kleinherenbrink (Geoscience and Remote Sensing, Delft University of Technology, Netherlands), Marc Naeije (Astrodynamics and Space Missions, Delft University of Technology, Netherlands), Thomas Moreau (Collecte Localisation Satellites (CLS), France), Claire Maraldi (CNES, France)

09:20 - 09:40:

[Cross-spectral analysis of SAR altimetry waveform tails](#)

Marcel Kleinherenbrink (Delft University of Technology, Netherlands), Frithjof Ehlers (Delft University of Technology, Netherlands), Sergi Hernandez (IsardSAT, Spain), Ferran Gibert (IsardSAT, Spain), Frederic Nouguier (Ifremer, France), Ourania Altiparmaki (Delft University of Technology, Netherlands), Florian Schlembach (DGF I, Germany), Bertrand Chapron (Ifremer, France), Paco Lopez Dekker (Delft University of Technology, Netherlands)

09:40 - 10:00:

[Usage of SAR Stack Data over Sea-Ice – A First Overview](#)

Christopher Buchhaupt (CISESS/UMD, United States), Alejandro Egido (ESTEC/ESA, Netherlands), Donghui Yi (GST/NOAA, United States), Walter H.F. Smith (NOAA, United States), Laurence Connor (NOAA, United States), Eric Leuliette (NOAA, United States)

10:00 - 10:20:

[Fully focused SAR altimetry studies for optimal data processing and new applications on different surfaces using S6-MF](#)

Samira Amraoui (BIOceanOr, France), Pietro Guccione (ARESYS, Italy), Thomas Moreau (CLS, France), Marta Alves (CLS, France), Jean-Alexis Daguzé (CLS, France), Ferrer Etienne (CLS, France), Laetitia Rodet (CLS, France), François Boy (CNES, France), Sophie LeGac (CNES, France), Claire Maraldi (CNES, France), Nicolas Picot (CNES, France), Ourania Altiparmaki (TU Delft, The Netherlands), Craig Donlon (ESA, The Netherlands)

10:30 - 11:00: Coffee break

11:00 - 11:20:

[FastAdaptiveS6 : an optimal retracking solution for the analysis of Sentinel-6 LRM data](#)

Anna Mangilli (CLS, France), Thomas Moreau (CLS, France), Fanny Piras (CLS, France), Marta Alves (CLS, France), Pierre Thibaut (CLS, France), Claire Maraldi (CNES, France), Francois Boy (CNES, France), Nicolas Picot (CNES, France), Francois Bignalet-Cazalet (CNES, France)

11:20 - 11:40:

[Instrumental Calibration of Copernicus Altimeters](#)

Pablo Garcia (isardSAT, Spain), Albert García-Mondejar (isardSAT, Spain), Mònica Roca-Aparici (isardSAT, Spain), Michel Guerra (isardSAT, Spain), Gorka Moyano (isardSAT, Spain), Pierre Femenias (ESA-ESRIN, Italy), Bruno Lucas (EUMETSAT, Germany), Jérémie Aublanc (CLS, France)

11:40 - 12:00:

[Sentinel-6 Options to improve C-band range and derived ionosphere quality](#)

Jean-Damien Desjonquieres (Jet Propulsion Laboratory, California Institute of Technology, France)

Precision Orbit Determination

Session chairs: Sean Bruinsma, Alexandre Couhert, Frank Lemoine
(Wed, Nov 08 2023, 09:00 - 12:30)

Tortuga Beach Room (#209A)

09:00 - 09:15:

[CNES preliminary POE-G precise orbit performances for the Sentinel-6 MF mission](#)

John Moyard (CNES, France), Alexandre COUHERT (CNES, France), Flavien MERCIER (CNES, France), Sabine HOURY (CNES, France), Eléonore SAQUET (CLS, France), Gina KATSIKIANNI (CLS, France), Marie CHERRIER (CLS/CELAD, France), Adrian BANOS-GARCIA (CLS, France)

09:20 - 09:35:

[GPS-Based Precise Orbit Determination of the Sentinel-6 MF Mission](#)

Alex Conrad (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, United States), Shailen Desai (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, USA), Bruce Haines (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, USA)

09:40 - 09:55:

[The status of the NASA GSFC altimeter satellite orbits for TOPEX, the Jason satellites and Sentinel-6A](#)

Frank Lemoine (NASA GSFC, United States), Nikita Zelensky (UMD/ESSIC, U.S.A.), Brian Beckley (KBR Inc., U.S.A.), Xu Yang (KBR Inc., U.S.A.), Douglas Chinn (KBR Inc., U.S.A.), Taylor Thomas (Emergent Space Technologies Inc., U.S.A.), Scott Luthcke (NASA GSFC, U.S.A.), Teresa Pennington (KBR Inc., U.S.A.), David Rowlands (NASA GSFC, U.S.A.)

10:00 - 10:15:

[Copernicus POD Service: Status and improvements](#)

Carlos Fernandez (GMV, Spain), Marc Fernandez (GMV, Spain), Heike Peter (PosiTIm, Germany), Pierre Féménias (ESA/ESRIN, Italy), Carolina Nogueira Loddó (EUMETSAT, Germany)

10:30 - 11:00: Coffee break

11:00 - 11:15:

[Evaluation of the ITRS 2020 realizations for POD of altimetry satellites](#)

Sergei Rudenko (Deutsches Geodätisches Forschungsinstitut, Technische Universität München (DGFI-TUM), Germany), Denise Dettmering (DGFI-TUM, Germany), Mathis Bloßfeld (DGFI-TUM, Germany), Julian Zeithöfler (DGFI-TUM, Germany)

11:20 - 11:35:

[Early SWOT POD Results](#)

Alexandre Couhert (CNES, France), Shailen Desai (JPL, USA), Sabine Houry (CNES, France), John Moyard (CNES, France), Flavien Mercier (CNES, France)

11:40 - 11:55:

[SWOT platform contribution to overall Precise Orbit Determination Budget](#)

Fabien d'ESTE (Thales Alenia Space, France), Carole DUFOUR (Thales Alenia Space, France), Magali TELLO (Centre National d'Etudes Spatiales, France), Nathalie STEUNOU (Centre National d'Etudes Spatiales, France)

12:00 - 12:15:

[In-flight GNSS phase map calibration modelling with Zernike polynomials](#)

Adrian Banos Garcia (CLS, France)

12:30 - 14:00: Lunch

Instrument Processing: Propagation, Wind Speed and Sea State Bias

Session chairs: Shannon Brown, Cristina Martin-Puig, Estelle Obligis
(Wed, Nov 08 2023, 14:00 - 15:45)

Grande Beach Room (#208)

14:00 - 14:15:

[Optimal parameters for mapping alongtrack altimetry](#)

Lilly Jonathan (Planetary Science Institute, United States)

14:15 - 14:30:

[Inclusion of the ocean's vertical velocity variance into the sea-state-bias correction](#)

Marcel Kleinherenbrink (Delft University of Technology, Netherlands), Fritjof Ehlers (Delft University of Technology, Netherlands), Florian Schlembach (DGFI, Germany)

14:30 - 14:45:

[Improved algorithms for the wet tropospheric correction over coastal regions: application to the Sentinel-3 mission](#)

Pedro Aguiar (FCUP, Portugal), Telmo Vieira (FCUP, Portugal), Clara Lázaro (FCUP, Portugal), M. Joana Fernandes (FCUP, Portugal)

14:45 - 15:00:

[Wet troposphere correction derived from water vapor climate data records](#)

Anne Barnoud (Magellium, France), Marie Bouih (Magellium, France), Bruno Picard (Fluctus, France), Benoit Meyssignac (LEGOS, France), Florence Marti (Magellium, France), Michaël Ablain (Magellium, France), Rémy Roca (LEGOS, France)

15:00 - 15:15:

[Performances and benefits of a 1D-variational approach to retrieve the wet tropospheric correction: recent achievements for Sentinel-6 and Sentinel-3A and -3B topography missions](#)

Ralf Bennartz (Univ. Vanderbilt, Nashville, TN, USA, United States), Bruno Picard (Fluctus, France), Frank Fell (Informus, Deutschland), Estelle Olibis (EUMETSAT, Deutschland), Remko Scharroo (Eumetsat, Deutschland), Bruno Lucas (Eumetsat, Deutschland), Boyan Bojkov (Eumetsat, Deutschland)

15:15 - 15:30:

[How has global warming impacted the altimeter wet path delay over the altimetry record?](#)

Telmo Vieira (University of Porto, Faculty of Sciences, Portugal), M. Joana Fernandes (University of Porto, Faculty of Sciences, Portugal), Pedro Aguiar (University of Porto, Faculty of Sciences, Portugal), Clara Lázaro (University of Porto, Faculty of Sciences, Portugal)

15:30 - 15:45:

[Progress on the Wet Path Delay Correction: Historical, Current and Future](#)

Shannon Brown (JPL, United States), Shailen Desai (JPL, USA), Chun Sik Chae (JPL, USA)

Outreach, Education and Altimetric Data Services

Session chairs: Hayley Evers-King, Jack McNelis, Vinca Rosmorduc, Margaret Srinivasan
(Wed, Nov 08 2023, 14:00 - 15:45)

Tortuga Beach Room (#209A)

14:00 - 14:20:

[Raising awareness of SLA adjustments in the IMOS-OceanCurrent website](#)
Gabriela Pilo (CSIRO, Australia), David Griffin (CSIRO, Australia)

14:20 - 14:40:

[A new dataset of relative sea level measurements created using Global Navigation Satellite System \(GNSS\) receivers](#)

Andrew Matthews (National Oceanography Centre, United Kingdom), Simon Williams (National Oceanography Centre, United Kingdom), Chris Banks (National Oceanography Centre, United Kingdom)

14:40 - 15:00:

[CTOH products and altimetry applications over the ocean, coasts, and continental surfaces](#)

Fernando Niño (Legos / Université de Toulouse, CNES, CNRS, IRD, UPS, France), Damien Allain (LEGOS / Université de Toulouse, CNES, CNRS, IRD, UPS, France), Florence Birol (Legos / Université de Toulouse, CNES, CNRS, IRD, UPS, France), Fabien Blarel (Legos / Université de Toulouse, CNES, CNRS, IRD, UPS, France), Robin Chevrier (Legos / Université de Toulouse, CNES, CNRS, IRD, UPS, France), Wassim Fkaier (Legos / Université de Toulouse, CNES, CNRS, IRD, UPS, France), Benoît Laurent (Legos / Université de Toulouse, CNES, CNRS, IRD, UPS, France), Fabien Léger (Legos / Université de Toulouse, CNES, CNRS, IRD, UPS, France), Rosemary Morrow (Legos / Université de Toulouse, CNES, CNRS, IRD, UPS, France), Oscar Vergara (Legos / Université de Toulouse, CNES, CNRS, IRD, UPS, France)

15:00 - 15:20:

[Altimetry Missions Applications Support: An international collaboration for the Jason-series, Sentinel 6 & SWOT](#)

Margaret Srinivasan (Jet Propulsion Laboratory, California Institute of Technology, United States), Vardis Tsontos (Jet Propulsion Laboratory, California Institute of Technology, United States), Matthew Bonnema (Jet Propulsion Laboratory, California Institute of Technology, United States), Santiago Peña-Luque (CNES, France), Nicolas Picot (CNES, France)

15:20 - 15:45:

[Outreach and data services showcases](#)

The Geoid, Mean Sea Surfaces and Mean Dynamic Topography (ROUND TABLE)

Session chairs: Ole B. Andersen, Yannice Faugere
(Wed, Nov 08 2023, 14:00 - 15:00)

Crash Boat Beach Room (#209B)

14:00 - 15:00:

[Discussion time organized by chairs](#)

15:45 - 16:15: Coffee break

Poster session part 1

Session chairs: all
(Wed, Nov 08 2023, 16:15 - 18:00)
See posters' list on page 20

08:00 - 09:00: Registration and Presentation upload

Regional and Global CAL/VAL for Assembling a Climate Data Record

Session chairs: Pascal Bonnefond, Shailen Desai, Luisella Giulicchi, Bruce Haines, Eric Leuliette, Nicolas Picot (Thu, Nov 09 2023, 09:00 - 12:30)

Grande Beach Room (#208)

09:00 - 09:15:

[The Harvest Experiment: New Beginnings](#)

Bruce Haines (Jet Propulsion Laboratory, France), Shailen Desai (Jet Propulsion Laboratory, California Institute of Technology, USA), Andy Wu (Jet Propulsion Laboratory, California Institute of Technology, USA), Scott Stalin (NOAA, Pacific Marine Environmental Laboratory, USA)

09:15 - 09:30:

[Jason-3 & Sentinel-6 MF calibration at the Corsica facilities](#)

Pascal Bonnefond (Observatoire de Paris - SYRTE, France), Olivier Laurain (OCA-Géoazur, France), Pierre Exertier (GET, France), Thierry Guinle (CNES, France), Nicolas Picot (CNES, France), Pierre Féménias (ESA/ESRIN, Italy)

09:30 - 09:45:

[High resolution in situ sampling in Bass Strait and surrounds: Early perspectives on validation of SWOT Fast Sampling Phase data](#)

Christopher Watson (University of Tasmania, Australia), Benoit Legresy (CSIRO, Australia), Andrea Hay (University of Tasmania, Australia), Jack Beardsley (University of Tasmania, Australia), Boye Zhou (University of Tasmania, Australia), Matt King (University of Tasmania, Australia)

09:45 - 10:00:

[The ESA Permanent Facility for Altimetry Calibration in Crete: Advanced Services and Latest Cal/Val Results](#)

Stelios Mertikas (Technical University of Crete, Greece), Craig Donlon (European Space Agency, ESTEC, Netherlands), Dimitrios Piretzidis (Space Geomatica, Greece), Costas Kokolakis (Space Geomatica, Greece), Robert Cullen (European Space Agency, ESTEC, Netherlands), Pierre Femenias (European Space Agency, ESRIN, Italy), Marco Fornari (European Space Agency, ESTEC, Netherlands), Jerome Bouffard (European Space Agency, ESRIN, Italy), Alessandro Di Bella (European Space Agency, ESRIN, Italy), Francois Boy (CNES, France), Xenophon Frantzis (Technical University of Crete, Greece), Achilles Tripolitsiotis (Space Geomatica, Greece), Mingsen Lin (National Satellite Ocean Application Service, China), Lei Yang (First Institute of Oceanography, China)

10:00 - 10:15:

[Using corner reflectors for altimetry calibration](#)

Ferran Gibert and Claire Maraldi (leading authors) (isardSAT, Spain and CNES, France), Adrià Gómez-Olivé (isardSAT SL, Spain), Albert Garcia-Mondéjar (isardSAT SL, Spain), Sergi Hernandez (IsardSAT, Spain), Adrián Flores de la Cruz (isardSAT SL, Spain), Mònica Roca i Aparici (isardSAT SL, Spain), Samira Amraoui (CLS, France), François Boy (CNES, France), Jean-Luc Courrière (CNES, France), Sophie Le Gac (CNES, France), François-Xavier Marmet (CNES, France), Thomas Moreau (CLS, France), Nicolas Picot (CNES, France), Cédric Tourain (CNES, France), Franck Borde (ESA/ESTEC, The Netherlands)

10:15 - 10:30:

[Tide gauge comparisons for Jason-3, Sentinel-3, and Sentinel-6MF](#)

Eric Leuliette (NOAA, United States), Amanda Plagge (NOAA/GST, United States)

10:30 - 11:00: Coffee break

11:00 - 11:15:

[Global Validation of the Jason-3 Mission: Current Status](#)

Johan Nilsson (NASA - Jet Propulsion Laboratory, United States), Forster Linda (NASA - Jet Propulsion Laboratory, United States), Shailen Desai (NASA - Jet Propulsion Laboratory, United States), Jean-Damien Desjonqueres (NASA - Jet Propulsion Laboratory, United States), Bruce Haines (NASA - Jet Propulsion Laboratory, United States)

11:15 - 11:30:

[Excellent performances of the newly reprocessed ERS-1, ERS-2 and ENVISAT products for altimetry and radiometry: the FDR4ALT products](#)

Fanny Piras (CLS, France), Pierre Thibaut (CLS, France), Malcolm McMillan (University of Lancaster, UK), Sara Fleury (LEGOS, France), Marion Bocquet (LEGOS, France), Eero Rinne (FMI, Finland), Frank Fell (Informus, Germany), Bruno Picard (Fluctus, France), Fernando Nino (LEGOS, France), Angelica Tarpanelli (IRPI, Italy), Emma Woolliams (NPL, UK), H el ene Roinard (CLS, France), Victor Quet (CLS, France), Annabelle Ollivier (CLS, France), Jean-Alexis Daguz e (CLS, France), Beatriz Calmettes (CLS, France), Marie-Laure Fr ery (CLS, France), Mathilde Simeon (CNES, France), Pierre F em enias (ESA/ESRIN, Italy)

11:30 - 11:45:

[Ongoing Validation and Recent Improvements to CryoSat Ocean Products](#)

Chris Banks (National Oceanography Centre, United Kingdom), Francisco Mir Calafat (National Oceanography Centre, United Kingdom), Alessandro Di Bella (ESA, Italy), Jerome Bouffard (ESA, Italy)

11:45 - 12:00:

[Validation of the latest Sentinel-3A/B surface topography baseline collection BC_005 over ocean](#)

Francesco Nencioli (CLS, France), Lucia Rinchiuso (CLS, France), Pierre Prandi (CLS, France), Chloe Durand (CLS/CELAD, France), Bruno Lucas (EUMETSAT, Germany), Carolina Nogueira-Loddo (EUMETSAT, Germany)

12:00 - 12:15:

[Validation of the reprocessed TOPEX GDR-F products](#)

Linda Forster (Jet Propulsion Laboratory, Caltech, United States), Francois Bignalet-Cazalet (Centre National d'Etudes Spatiales, France), Shailen Desai (Jet Propulsion Laboratory, Caltech, United States), Jean-Damien Desjonqu eres (Jet Propulsion Laboratory, Caltech, United States), Nicolas Picot (Centre National d'Etudes Spatiales, France), Helene Roinard (Collecte Localisation Satellites, France)

12:15 - 12:30:

[30 years of sea level anomaly reprocessed to improve climate and mesoscale satellite data record](#)

Cecile Kocha (cls, France), marine lievin (cls, france), yann pageot (celad, france), clemence rubin (alten, france), sabine philipps (cls, france), gerald dibarbour (cnes, france), isabelino denis (cnes, france), thierry guinle (cnes, france), carolina noqueira loddo (cnes, france)

Coastal Altimetry

Session chairs: Florence Birol, Brett Buzzanga, Joana Fernandes, Clara Lazaro, Marcello Passaro (Thu, Nov 09 2023, 09:00 - 10:30)

Tortuga Beach Room (#209A)

09:00 - 09:15:

[Review of Satellite Altimetry for Ocean and Coastal Applications for Societal Benefit](#)

Vardis Tsonetos (NASA/JPL, United States), Margaret Srinivasan (NASA/JPL, USA)

09:15 - 09:30:

[FDR4ALT new coastal products for the ERS / Envisat missions](#)

Fernando Ni o (LEGOS / Universit e de Toulouse, CNES, CNRS, IRD, UPS, France), Florence Birol (LEGOS / Universit e de Toulouse, CNES, CNRS, IRD, UPS, France), Fabien Blarel (LEGOS / Universit e de Toulouse, CNES, CNRS, IRD, UPS, France), Wassim Fkaier (LEGOS / Universit e de Toulouse, CNES, CNRS, IRD, UPS, France), Fabien L eger (LEGOS / Universit e de Toulouse, CNES, CNRS, IRD, UPS, France), Mathilde Cancet (Noveltis, France), Ergane Fouchet (Noveltis, France), Fanny Piras (CLS, France), H el ene Roinard (France, France), Pierre F em enias (ESA, Italy)

09:30 - 09:45:

[Benefits of Icesat-2 for DUACS Multimission coastal Sea level products](#)

Yannice Faugere (CLS Space Oceanography Division, France), Tom Semblanet (CLS, France), Pierre Veillard (CLS, France), Loren Carrere (CLS, France), Gerald Dibarbour (CLS, France)

09:45 - 10:00:

[On the impact of the assimilation of 5 Hz multi-missions Significant Wave Height in regional wave model of CMEMS-IBI](#)

Lotfi Aouf (Division Marine et Océanographie Météo-France, France), Louna Louis (Meteo France, France), Annabelle Ollivier (CLS, France), Alice Dalphinnet (Meteo France, France), Adrien Nigou (CLS, France)

10:00 - 10:15:

[Impacts of using different atmospheric models on altimeter-derived Sea Level Trends](#)

M. Joana Fernandes (DGAOT, Faculdade de Ciências, Universidade do Porto, Portugal), Telmo Vieira (DGAOT, Faculdade de Ciências, Universidade do Porto, Portugal), Pedro Aguiar (DGAOT, Faculdade de Ciências, Universidade do Porto, Portugal), Clara Lázaro (DGAOT, Faculdade de Ciências, Universidade do Porto, Portugal)

10:15 - 10:30:

[Satellite Altimetry Sea Level Height and Related In Situ DART® and Tide Gauge Products Stewardship and Comparison Study in NOAA/NCEI](#)

Yongsheng Zhang (NOAA/NESDIS/NCEI-University of Maryland/ESSIC, United States), George Mungov (NOAA/NESDIS/NCEI-University of Maryland/ESSIC, United States), Xuepeng Zhao (NOAA/NESDIS/NCEI, United States), Huai-min Zhang (NOAA/NESDIS/NCEI, United States)

Application development for Operations (ROUND TABLE)

Session chairs: Deirdre Byrne, Gerald Dibarboure, Gregg Jacobs, Carolina Nogueira Lodo
(Thu, Nov 09 2023, 09:00 - 10:00)

Crash Boat Beach Room (#209B)

09:00 - 10:00:

[Discussion time organized by chairs](#)

Synergies between Argo, GRACE and Altimetry

Session chairs: Felix Landerer, Steve Nerem, Susan Wijffels, Nathalie Zilberman
(Thu, Nov 09 2023, 11:00 - 12:30)

Tortuga Beach Room (#209A)

11:00 - 11:13:

[Monitoring the global ocean heat content from space geodetic observations](#)

Michael Ablain (Magellium, France), Marti Florence (Magellium, France), Rousseau Victor (Magellium, France), Fraudeau Robin (Magellium, France), Benoit Meyssignac (LEGOS, Université de Toulouse, CNES, CNRS, IRD, UPS, France), Alejandro Blazquez (LEGOS, Université de Toulouse, CNES, CNRS, IRD, UPS, France)

11:13 - 11:26:

[Mapping steric sea level from satellite altimetry, GRACE/GRACE-FO, and Argo.](#)

Sara Reinelt (University of South Florida, United States), Don Chambers (University of South Florida, United States)

11:26 - 11:39:

[Deep-ocean steric sea level variations in the Northwest Atlantic Basin revealed using Deep Argo and Bermuda Atlantic Time-series Study full-depth profiles](#)

Nathalie Zilberman (Scripps Institution of Oceanography, United States), William Llovel (LOPS - CNRS/IFREMER/IRD/UBO, France), Antoine Hochet (LOPS/CNRS, France), Jacob Steinberg (NOAA/GFDL, United States)

11:39 - 11:52:

[Can Deep Argo Close the Sea Level Budget in the Southwest Pacific Basin?](#)

Paige Lavin (University of Maryland; NOAA/STAR, United States), Gregory Johnson (NOAA/PMEL, United States)

11:52 - 12:05:

[Cause of substantial global mean sea level rise over 2014-2016](#)

William Llovel (LOPS/CNRS, France), Kevin Balem (LOPS/IFREMER, France), Soumaia Tajouri (LOPS/UBO, France), Antoine Hochet (LOPS/CNRS, France)

12:05 - 12:18:

[Impacts of GIA Modeling Uncertainties on the Closure of the GMSL Budget](#)

Ashley Bellas (University of Colorado, United States), Robert Steven Nerem (University of Colorado, United States)

Tides, internal tides and high-frequency processes (ROUND TABLE)

Session chairs: Loren Carrere, Florent Lyard, Richard Ray
(Thu, Nov 09 2023, 11:00 - 12:00)

Crash Boat Beach Room (#209B)

11:00 - 12:00:

[Discussion time organized by chairs](#)

12:30 - 14:00: Lunch

Sentinel-6 Validation Team (S6VT) Meeting

Session chairs: Pascal Bonnefond, Craig Donlon, Alejandro Egido, Severine Fournier, Eric Leuliette, Remko Scharroo, Josh Willis
(Thu, Nov 09 2023, 14:00 - 18:00)

Grande Beach Room (#208)

14:00 - 14:20:

[Sentinel-6 products status](#)

Remko Scharroo (EUMETSAT, Germany), Cristina Martin-Puig (EUMETSAT, Germany), Salvatore Dinardo (EUMETSAT, Germany), Carolina Nogueira Loddo (EUMETSAT, Germany), Mike Grant (EUMETSAT, Germany), Marco Meloni (EUMETSAT, Germany), Bruno Lucas (EUMETSAT, Germany)

14:20 - 14:40:

[S6 MPWG Cal/Val Activities Status and Roadmap](#)

Cristina Martin Puig (EUMETSAT, Germany), Robert Cullen (ESA, The Netherlands), Jean-Damien M Desjonqueres (NASA, USA), Eric Leuliette (NOAA, USA), Claire Maraldi (CNES, France), Marco Meloni (EUMETSAT, Germany)

14:40 - 14:55:

[Results from Independent Calibration and Validation of the Sentinel-6 Michael Freilich Mission](#)

Linda Forster (Jet Propulsion Laboratory, Caltech, United States), Johan Nilsson (Jet Propulsion Laboratory, Caltech, United States), Jean-Damien Desjonquères (Jet Propulsion Laboratory, Caltech, United States), Shailen Desai (Jet Propulsion Laboratory, Caltech, United States)

14:55 - 15:10:

[Improvements of Sentinel-6MF performances over ocean thanks to F08 LR numerical retracker](#)

Emeline Cadier (CLS, France), Bastien Courcol (CLS, France), François Bignalet-Cazalet (CNES, France), Claire Maraldi (CNES, France), Martin-Puig Cristina (Eumetsat, Germany), Scharroo Remko (Eumetsat, Germany)

15:10 - 15:25:

[Discrepancies in Sentinel-6MF Sea Surface Parameters Estimated from Low- and High-Resolution Data](#)

Christopher Buchhaupt (CISS/UMD, United States), Alejandro Egido (ESTEC/ESA, Netherlands), Doug Vandemark (University of New Hampshire, United States), Luciana Fenoglio (University of Bonn, Germany), Walter H.F. Smith (NOAA, United States), Eric Leuliette (NOAA, United States)

15:45 - 16:15: Coffee break

16:15 - 16:30:

[Sentinel-6 Michael Freilich and Jason-3 Tandem Flight Exploitation \(S6-JTEX\) study](#)

Thomas Moreau (CLS, France), Laiba Amarouche (CLS, France), Samira Amraoui (BIOceanOR, France), Emeline Cadier (CLS, France), Anna Mangilli (CLS, France), Pierre Prandi (CLS, France), Nicolas Taburet (CLS, France), Ngan Tran (CLS, France), Michael Ablain (Magellium, France), Marcello Passaro (TUM, Germany), Florian Schlembach (TUM, Germany), Julius Oelsmann (TUM, Germany), Denise Dettmering (TUM, Germany), Pietro Guccione (ARESYS, Italy), Lisa Recchia (ARESYS, Italy), Jorge Magalhaes (University of Porto, Portugal), José da Silva (University of Porto, Portugal), Adriana Maria Santos-Ferreira (University of Porto, Portugal), Ben Timmermans (NOC, United Kingdoms), Christine Gommenginger (NOC, United Kingdoms), Chris Banks (NOC, United Kingdoms), Craig Donlon (ESA, The Netherlands), Claire Maraldi (CNES, France), François Bignalet-Cazalet (CNES, France), François Boy (CNES, France)

16:30 - 16:45:

[SENTINEL-6 PERFORMANCE FROM TRANSPONDER GROUP](#)

Albert Garcia-Mondejar (isardSAT, Spain), Craig James Donlon (ESA-ESTEC, Netherlands), Marco Fornari (RHEA for ESA, Netherlands), Stelios Mertikas (Technical University of Crete, Greece), Laura Fioretti (ARESYS, Italy), Adrián Flores (isardSAT, Spain), Adrià Gómez (isardSAT, Spain), Ferran Gibert (isardSAT, Spain), Sergi Hernández (isardSAT, Spain), Andrea Recchia (ARESYS, Italy), Konstantinos (Costas) Kokolakis (Technical University of Crete, Greece), Demetris Piretzidis (Space Geomatica PC, Greece), Etienne Ferrer (CLS, France), Samira Amraoui (CLS, France), Robert Cullen (ESA-ESTEC, Netherlands), Pierre Féménias (ESA-ESRIN, Italy), Luisella Giulicchi (ESA-ESTEC, Netherlands), Alejandro Egido (ESA-ESTEC, Netherlands), Michele Scagliola (RHEA for ESA, Italy), Francois Boy (CNES, France), Jean Damien Desjonquieres (JPL, USA), Claire Maraldi (CNES, France), Marco Meloni (EUMETSAT, Germany), Cristina Martín-Puig (EUMETSAT, Germany), Remko Scharroo (EUMETSAT, Germany), Walter Smith (NOAA, USA)

16:45 - 17:00:

[Stability Monitoring of the AMR-C on Sentinel-6](#)

Bin Zhang (Global Science Technology, Inc, United States), Eric Leuliette (NOAA/NESDID/STAR, United States)

17:00 - 17:15:

[Updated S6MF validation results from the Bass Strait validation facility, Australia](#)

Christopher Watson (University of Tasmania, Australia), Benoit Legresy (CSIRO, Australia), Andrea Hay (University of Tasmania, Australia), Jack Beardsley (University of Tasmania, Australia), Boye Zhou (University of Tasmania, Australia), Matt King (University of Tasmania, Australia)

17:15 - 17:30:

[Evaluation of Sentinel-6 Fully-Focused SAR altimetry over Open Ocean and Inland Water](#)

Luciana Fenoglio (University of Bonn, Germany), Jaming Chen (University of Bonn, Institute of Geodesy and Geoinformation, Germany), Hakan Uyanik (University of Bonn, Institute of Geodesy and Geoinformation, Germany), Jürgen Kusche (University of Bonn, Institute of Geodesy and Geoinformation, Germany)

Poster session part 2

Session chairs: all

(Thu, Nov 09 2023, 14:00 - 15:45)

See posters' list on page 20

19:00 - 22:00: Conference Dinner

08:00 - 09:00: Registration and Presentation upload

Discussion on the OSTST recommendations Or Sentinel-6 Validation Team (S6VT) feedback

Session chairs: Pascal Bonnefond, Craig Donlon, Alejandro Egido, Severine Fournier, Eric Leuliette, Remko Scharroo, Josh Willis
(Fri, Nov 10 2023, 09:00 - 10:30)

Grande Beach Room (#208)

09:00 - 10:30:

[Discussion time organized by Project Scientists](#)

10:30 - 11:00: Coffee break

Science I: Understanding and Quantifying Regional and Global Sea Level Budgets

Session chairs: Anne Barnoud, Benjamin Hamlington, Benoit Meyssignac
(Fri, Nov 10 2023, 11:00 - 12:30)

Grande Beach Room (#208)

11:00 - 11:15:

[Sea Level Budget Closure CCI+ project \(ESA, 2023-2026\): from validation of the Earth's observing system to scientific questions](#)

Michael Ablain (Magellium, France), Barnoud Anne (Magellium, France), Bouih Marie (Magellium, France), Fraudeau Robin (Magellium, France), Larnicol Gilles (Magellium, France), Cazenave Anny (LEGOS, Université de Toulouse, CNES, CNRS, IRD, UPS, France), Meyssignac Benoit (LEGOS, Université de Toulouse, CNES, CNRS, IRD, UPS, France), Blazquez Alejandro (LEGOS, Université de Toulouse, CNES, CNRS, IRD, UPS, France), Horwath Martin (TUD Dresden University of Technology, Germany), Thorben Döhne (TUD Dresden University of Technology, Germany), Jonathan Bamber (University of Bristol, UK), Antonio Bonaduce (NERSC, Norway), Roshin P. Raj (NERSC, Norway), Leroux Stéphanie (DATLAS, France), Kolodziejczyk Nicolas (UBO-LOPS, France), Llovel William (UBO-LOPS, France), Rémy Asselot (UBO-LOPS, France), Andrea Storto (CNR, Italy), Chunxue Yang (CNR, Italy), Spada Giorgio (UNIBO, Italy), Marco Restano (ESA/ESRIN, Italy), Jerome Benveniste (ESA/ESRIN, Italy)

11:15 - 11:30:

[Improvement of global mean sea level trend and acceleration uncertainties from satellite altimetry](#)

Anna Mangilli (CLS, France), Pierre Prandi (CLS, France), Benoit Meyssignac (LEGOS, France), Victor Quet (CLS, France), Frank Octau (CLS/ALTEN, France), Sylvie Labroue (CLS, France), Anne Barnoud (Magellium, France), Michael Ablain (Magellium, France), Gerald Dibarboue (CNES, France)

11:30 - 11:45:

[Regional Variability in the 30-Year Satellite Altimeter Record](#)

Angelica R. Rodriguez (NASA Jet Propulsion Laboratory, California Institute of Technology, United States), Benjamin Hamlington (NASA Jet Propulsion Laboratory, California Institute of Technology, United States), Brett Buzzanga (NASA Jet Propulsion Laboratory, California Institute of Technology, United States), Christopher Piecuch (Woods Hole Oceanographic Institution, US), Philip Thompson (University of Hawai'i at Manoa, US)

11:45 - 12:00:

[Understanding Differences Between Regional Sea Level Trends from Altimetry and Climate Model Large Ensembles](#)

Robert Steven Nerem (University of Colorado, United States), John Fasullo (National Center for Atmospheric Research, United States)

12:00 - 12:15:

[Patterns of sea-level change in the altimeter record as compared to CMIP6 historical simulations](#)

Sloan Coats (University of Hawai'i, United States), Philip Thompson (University of Hawai'i, United States)

12:15 - 12:30:

[What Forcing Mechanisms Affect the Co-variability of Interannual Sea Level Variations Between the Northeast and Southeast Coasts of the United States?](#)

Tong Lee (Jet Propulsion Laboratory, United States), Ou Wang (Jet propulsion Laboratory, United States), Thomas Frederikse (University of California at Los Angeles, United States), Rui Ponte (Atmospheric and Environmental Research Inc., United States), Ian Fenty (Jet Propulsion Laboratory, United States), Ichiro Fukumori (Jet Propulsion Laboratory, United States), Ben Hamlington (Jet Propulsion Laboratory, United States)

CFOSAT (ROUND TABLE)

Session chairs: Lotfi Aouf, Danièle Hauser, Joanna Staneva, Doug Vandemark
(Fri, Nov 10 2023, 11:00 - 12:00)

Crash Boat Beach Room (#209B)

11:00 - 12:00:

[Discussion time organized by chairs](#)

12:30 - 14:00: Lunch

Science II: Large Scale Ocean Circulation Variability and Change

Session chairs: Weiqing Han, Nathalie Zilberman
(Fri, Nov 10 2023, 14:00 - 15:45)

Grande Beach Room (#208)

14:00 - 14:13:

[Ocean Dynamics control of the Steric Sea Level Seasonal Cycle](#)

Antoine Hochet (CNRS, France), William Llovel (CNRS, FRANCE), Thierry Huck (CNRS, FRANCE), Florian Sevellec (CNRS, FRANCE)

14:13 - 14:26:

[Changing ocean stratification is changing barotropic-to-baroclinic tidal conversion: evidence from altimetry and 3-D modeling](#)

Richard Ray (NASA/GSFC, United States), Lana Opel (University of Bonn, Germany), Michael Schindelegger (University of Bonn, Germany)

14:26 - 14:39:

[Observed mechanisms triggering the recent warming in the eastern subpolar North Atlantic since 2016](#)

Chafik Léon (Stockholm University, Sweden)

14:39 - 14:52:

[Interannual Sea Level Variability Along the U.S. East Coast During Satellite Altimetry Era: Local versus Remote Forcing](#)

Weiqing Han (presenting) (The University of Colorado, United States), Yingli (lead author in manuscript) Zhu (University of Colorado, USA)

14:52 - 15:05:

[Understanding Eastern Tropical Atlantic Ocean Dynamics in Relation to Climate Indices](#)

Isabel Cardoso (Faculdade de Ciências, Universidade do Porto (FCUP), Porto, Portugal), Isabel Iglesias (Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR/CIMAR), Matosinhos, Portugal), Fabiola Amorim (Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR/CIMAR), Matosinhos, Portugal), Clara Lázaro (Faculdade de Ciências, Universidade do Porto (FCUP), Porto/Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR/CIMAR), Matosinhos, Portugal)

15:05 - 15:18:

[Regional impacts of global ocean teleconnections: the influence of rossby waves in the Southwestern Atlantic](#)

Nicolás Bodnariuk (1) Universidad de Buenos Aires, Facultad de Ciencias Exactas y Naturales, Departamento de Ciencias de la Atmósfera y los Océanos. Buenos Aires, Argentina. (2) CONICET – Universidad de Buenos Aires. Centro de Investigaciones del Mar y la Atmósfera (CIMA)., Argentina), Claudia Gloria Simionato ((1) Universidad de Buenos Aires, Facultad de Ciencias Exactas y Naturales, Departamento de Ciencias de la Atmósfera y los Océanos. Buenos Aires, Argentina. (2) CONICET – Universidad de Buenos Aires. Centro de Investigaciones del Mar y la Atmósfera (CIMA)., Argentina), Martín Saraceno ((1) Universidad de Buenos Aires, Facultad de Ciencias Exactas y Naturales, Departamento de Ciencias de la Atmósfera y los Océanos. Buenos Aires, Argentina. (2) CONICET – Universidad de Buenos Aires. Centro de Investigaciones del Mar y la Atmósfera (CIMA)., Argentina), Marisol Osman ((1) Universidad de Buenos Aires, Facultad de Ciencias Exactas y Naturales, Departamento de Ciencias de la Atmósfera y los Océanos. Buenos Aires, Argentina. (2) CONICET – Universidad de Buenos Aires. Centro de Investigaciones del Mar y la Atmósfera (CIMA)., Argentina), Leandro Baltasar Diaz ((1) Universidad de Buenos Aires, Facultad de Ciencias Exactas y Naturales, Departamento de Ciencias de la Atmósfera y los Océanos. Buenos Aires, Argentina. (2) CONICET – Universidad de Buenos Aires. Centro de Investigaciones del Mar y la Atmósfera (CIMA)., Argentina)

15:18 - 15:31:

[Anomalous Poleward Transports in the California Current](#)

Ted Strub (Oregon State University, United States), Corinne James (Oregon State University, United States), Melanie Fewings (Oregon State University, United States), Ricardo Matano (Oregon State University, United States), Vincent Combes (Oregon State University, United States), Jennifer Fisher (NOAA, United States), Samantha Zeman (NOAA, United States), Jessica Garwood (Oregon State University, United States), Andrew Scherer (Oregon State University, United States)

15:31 - 15:44:

[On 'Super' Stability of the Kuroshio Extension System after 2018](#)

Bo Qiu (University of Hawaii, United States), Shuiming Chen (University of Hawaii, USA), Eitarou Oka (The University of Tokyo, Japan)

15:45 - 16:15: Coffee break

Science IV: Altimetry for Cryosphere and Hydrology

Session chairs: Charon Birkett, Jérôme Bouffard, Jean-Francois Crétaux, Sinead Farrell, Karina Nielsen (Fri, Nov 10 2023, 16:15 - 18:00)

Tortuga Beach Room (#209A)

16:15 - 16:30:

[Measuring longitudinal river profiles from Sentinel-6 Fully-Focused SAR mode](#)

François Boy (CNES, France), Jean-Christophe Poisson (Vortex-io, France), Valentin Fouqueau (Vortex-io, FRANCE), Nicolas Picot (CNES, FRANCE), Sophie Le Gac (CNES, FRANCE)

16:30 - 16:45:

[Multi-Decadal Great Lakes Radar Altimetry Lake-Wide Water Level Climate Record](#)

C K Shum (The Ohio State University, United States), Yuanyuan Jia (School of Earth Sciences, Ohio State University, United States), Shengdao Wang (School of Earth Sciences, The Ohio State University, United States), Jason Otero Torres (National Geospatial-Intelligence Agency, United States)

16:45 - 17:00:

[The Sentinel-3 Next Generation Topography \(S3NG-TOPO\) Mission: Enhancing Continuity, Performance and Hydrology Capabilities](#)

Alejandro Egido (ESA-ESTEC, Netherlands)

17:00 - 17:15:

[CRISTALair, the CRISTAL Airborne Demonstrator](#)

Albert Garcia-Mondejar (isardSAT, Spain), Ferran Gibert (isardSAT, Spain), Chris Ray (isardSAT, Spain), Clara Colet (isardSAT, Spain), Ester Vendrell (isardSAT, Spain), Adriano Meta (MetaSensing, Italy), Matteo Desantis (MetaSensing, Italy), Massimo Fodonipi (MetaSensing, Italy), Henriette Skourup (Technical University of Denmark, Denmark), Sebastian Bjerregaard Simonsen (Technical University of Denmark, Denmark), Michele Scagliola (RHEA / ESA-ESRIN, Italy), Paolo Cipollini (ESA-ESTEC, Netherlands), Valeria Gracheva (ESA-ESTEC, Netherlands)

17:15 - 17:30:

[Improving the retrieval of lake ice thickness with radar altimetry data](#)

Anna Mangilli (CLS, France), Claude Duguay (H2O Geomatics and University of Waterloo, Canada), Pierre Thibaut (CLS, France), Justin Murfitt (University of Waterloo, Canada), Samira Amraoui (CLS, France), Thomas Moreau (CLS, France), Craig Donlon (ESA-ESTEC, The Netherlands), Clement Albergel (ESA-ECSAT, UK), Jerome Bouffard (ESA-ESRIN, Italy)

17:30 - 17:45:

[Sentinel-3 Land Ice level-2 thematic products: latest results based on full mission reprocessing validation](#)

Filomena Catapano (RHEA c/o ESRIN, Italy), Pierre Femenias (ESA, Italy), Jerome Bouffard (ESA, Italy)

17:45 - 18:00:

[Capitalizing on the experience of iceberg study from classical, SAR and interferometric altimeter for the CRISTAL mission](#)

Jean Tournadre (IFREMER, France)

Science III: Mesoscale and sub-mesoscale oceanography

Session chairs: Rosemary Morrow, Heather Roman-Stork, Clément Ubelmann, Jinbo Wang (Fri, Nov 10 2023, 16:15 - 18:00)

Grande Beach Room (#208)

16:15 - 16:30:

[Separating waves and eddies from sea surface height: theory, applications, and limitations](#)

Jeffrey Early (NorthWest Research Associates, United States), Cimarron Wortham (NorthWest Research Associates, United States), Arthur Guillaumin (Queen Mary University of London, United Kingdom), Jonathan Lilly (Planetary Science Institute, United States)

16:30 - 16:45:

[The coupling of geostrophic currents to near-surface motions in mesoscale eddies](#)

Peter Gaube (APL - University of Washington, United States), Alice Della Penna (University of Auckland, New Zealand), Jeffery Early (Northwest Research Associates, United States), Evan Mason (IMEDEA, Spain)

16:45 - 17:00:

[Evaluating SWOT's capability in observing small-scale \(<100km\) sea surface height](#)

Jinbo Wang (JPL, United States)

17:00 - 17:15:

[From low resolution gridded altimetry maps to fine scales in KaRIn images](#)

clement ubelmann (Datlas, France), Antoine Delepouille (CLS, France), Anaëlle Treboutte (CLS, France), Yannice Faugere (CLS, France), Gerald Dibarbouré (CNES, France)

17:15 - 17:30:

[Inserting SWOT/KaRIn images in the multi-mission altimeter constellation products](#)

Yannice Faugere (CLS Space Oceanography Division, France), Maxime Ballarotta (CLS, France), Antoine Delepouille (CLS, France), Ronan Fablet (IMT Atlantique, France), Anaëlle Treboutte (CLS, France), Guillaume Meda (CLS, France), Gerald Dibarbouré (CNES, France)

17:30 - 17:45:

[The sea surface height spectrum of internal waves reconstructed from ADCP and altimetry](#)

Saulo Soares (SIO UCSD, United States), Sarah Gille (SIO UCSD, United States), Teresa Chereskin (SIO UCSD, US)

Saturday, November 11 2023

08:00 - 09:00: Registration and Presentation upload

OSTST Closing Plenary Session

Session chairs: Pascal Bonnefond, Craig Donlon, Alejandro Egido, Severine Fournier, Eric Leuliette, Remko Scharroo, Josh Willis

(Sat, Nov 11 2023, 09:00 - 12:30)

Grande Beach Room (#208)

09:00 - 09:10:

[Definition of the new GDR – G standards in a multi-mission context](#)

Cristina Martin Puig (EUMETSAT, Germany), François Bigalet-Cazalet (CNES, France)

09:10 - 09:20:

[Application development for Operations summary](#)

09:20 - 09:30:

[CFOSAT summary](#)

09:30 - 09:40:

[Instrument processing \(Measurement and retracking\) summary](#)

09:40 - 09:50:

[Instrument processing \(Propagation, Wind Speed and Sea State Bias\) summary](#)

09:50 - 10:00:

[Outreach, Education & Altimetric data services summary](#)

10:00 - 10:10:

[Precision Orbit Determination summary](#)

10:10 - 10:20:

[Regional and Global CAL/VAL for Assembling a Climate Data Record summary](#)

10:20 - 10:30:

[The Geoid Mean Sea Surfaces and Mean Dynamic Topography summary](#)

10:30 - 11:00: Coffee break

11:00 - 11:10:

[Tides, internal tides and high-frequency processes summary](#)

11:10 - 11:20:

[Coastal Altimetry summary](#)

11:20 - 11:40:

[Science Results from Satellite Altimetry summary](#)

11:40 - 11:50:

[Synergies between Argo, GRACE and Altimetry summary](#)

11:50 - 12:00:

[Sentinel-6 Validation Team \(S6VT\) Meeting summary](#)

12:00 - 12:30:

[Discussion, summary and recommendations](#)

12:30 - 14:00: Lunch

Posters Sessions

Application development for Operations (ROUND TABLE)

Session chairs: Deirdre Byrne, Gerald Dibarboure, Gregg Jacobs, Carolina Nogueira Loddo

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

Thu, Nov 09 2023, 14:00 - 15:45 - Esperanza Beach Room (Lobby)

APO2023_001 - [The Global Water Monitor: Operational Monitoring of Lakes, Wetlands, and River Reaches for Resources and Hazards](#)

Charon Birkett (NASA/GSFC), Martina Ricko (KBR at NASA/GSFC), Xu Yang (KBR at NASA/GSFC), Wei Hao (GST at NOAA/NESDIS/STAR), Ce Yi (SSAI at NASA/GSFC)

APO2023_002 - [Assessing Tropical Cyclone Intensity Forecasts Using the NOAA Next-Generation Enterprise Ocean Heat Content Algorithm](#)

Deirdre Byrne (NOAA/LSA), Paige Lavin (NOAA/LSA and University of Maryland CISESS/ESSIC), David Trossman (NOAA/LSA and University of Maryland CISESS/ESSIC), Lewis Gramer (NOAA/OAR/AOML/HRD and University of Miami CIMAS)

APO2023_003 - [A near global improved gridded multi-mission daily SLA product slightly beyond real time..](#)

Mathias Jensen (Dr), Casper Bang-Hansen (DTU Space), Ole Baltazar Andersen (DTU Space), Carsten Ludwigsen (DTU space), Mads Ehrhorn (DTU Photonics)

APO2023_004 - [Seasonal Prediction of Harmful Algal Blooms Caused by *Karenia brevis* on the West Florida Shelf Using Satellite Altimetry Data](#)

Yonggang Liu (University of South Florida), Robert H Weisberg (University of South Florida), Katherine A Hubbard (Florida Fish and Wildlife Conservation Commission - Fish and Wildlife Research Institute)

APO2023_005 - [Status in the development of the CRISTAL Marine Data Centre](#)

Thomas Moreau (CLS), Laiba Amarouche (CLS), Francesco Nencioli (CLS), Sylvie Labroue (CLS), Albert Garcia-Mondéjar (isardSAT), Marcello Passaro (TUM), Ole Andersen (DTU), Ergane Fouchet (NOVELTIS), Cristina Martin-Puig (EUMETSAT), Carolina Nogueira Loddo (EUMETSAT), Salvatore Dinardo (EUMETSAT)

APO2023_006 - [NOAA's Jason-3 Products](#)

Donald Richardson (NOAA)

APO2023_007 - [Jason-3 Near-Real Time Products Latency from October 2022 to October 2023](#)

Donald Richardson (ERT Corporation)

APO2023_008 - [Multiparameter Mesoscale Eddy Tracking Products for Operational Use](#)

Heather Roman-Stork (NOAA/GST), Eric Leuliette (NOAA), Deirdre Byrne (NOAA)

APO2023_009 - [Physically-consistent mapped altimetry products on user-customizable grids](#)

Cimarron Wortham (NorthWest Research Associates), Jeffrey Early (NorthWest research Associates), Arthur Guillaumin (Queen Mary University of London)

CFOSAT (ROUND TABLE)

Session chairs: Lotfi Aouf, Danièle Hauser, Joanna Staneva, Doug Vandemark

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

Thu, Nov 09 2023, 14:00 - 15:45 - Esperanza Beach Room (Lobby)

CFO2023_001 - [On the assimilation of reprocessed SWIM wave data in the wave model MFWAM](#)

Lotfi Aouf (Division Marine et Océanographie Météo-France), Alice Dalphinnet (Meteo France),
Daniele Hauser (CNRS/LATMOS)

CFO2023_002 - [On the estimate of maximum wave height from CFOSAT mission : Thanks to SUMOS field campaign](#)

Lotfi Aouf (Division Marine et Océanographie Météo-France), Jiuke Wang (Sun Yat-Sen
University)

CFO2023_003 - [Using cfosat measurements to improve the ocean current.](#)

Marie Jenn Alet (CLS), Cecile Kocha (CLS), Annabelle Ollivier (CLS), Yannice Faugere (CLS),
Gerald Dibarboure (CNES)

CFO2023_004 - [Harmony's bistatic SAR mapping of ocean-wave spectra](#)

Marcel Kleinherenbrink (Delft University of Technology), Frederic Noguier (Ifremer), Bertrand
Chapron (Ifremer), Paco Lopez Dekker (Delft University of Technology)

Coastal Altimetry

Session chairs: Florence Birol, Brett Buzzanga, Joana Fernandes, Clara Lazaro, Marcello Passaro

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

Thu, Nov 09 2023, 14:00 - 15:45 - Esperanza Beach Room (Lobby)

COA2023_001 - [ICESat-2-based assessment of coastal zone sea level change](#)

Brett Buzzanga (JPL), Ben Hamlington (Jet Propulsion Laboratory), Angelica Rodriguez (Jet Propulsion Laboratory)

COA2023_002 - [FFSAR data radargram exploitation for improving the altimeter retracking performance in coastal zone.](#)

Etienne FERRER (CLS), Samira AMRAOUI (Bio-oceanor), Thomas MOREAU (CLS), Claire MARALDI (CNES)

COA2023_003 - [On the potential of mapping sea level anomalies from satellite altimetry with Random Forest Regression](#)

Marie-Christin Juhl (DGFI-TUM), Marcello Passaro (DGFI-TUM)

COA2023_004 - [High spatial and temporal resolution hydrographic data collected by Southern Elephant Seals in a wide continental shelf.](#)

Melina M Martinez (CIMA), Laura A. Ruiz Etcheverry (Universidad de Buenos Aires, Facultad de Ciencias Exactas y Naturales, Departamento de Ciencias de la Atmósfera y los Océanos (DCAO). Buenos Aires, Argentina. CONICET – Universidad de Buenos Aires. Centro de Investigaciones del Mar y la Atmósfera (CIMA).), Martin Saraceno (Universidad de Buenos Aires, Facultad de Ciencias Exactas y Naturales, Departamento de Ciencias de la Atmósfera y los Océanos (DCAO). Buenos Aires, Argentina. CONICET – Universidad de Buenos Aires. Centro de Investigaciones del Mar y la Atmósfera (CIMA).), Baptiste Picard (Centre d'Etudes Biologiques de Chizé, UMR 7372, CNRS-La Rochelle Université, 79360 Villiers en Bois), Christophe Guinet (Centre d'Etudes Biologiques de Chizé, UMR 7372, CNRS-La Rochelle Université, 79360 Villiers en Bois)

Instrument Processing: Measurement and Retracking

Session chairs: Francois Boy, Phil Callahan, Jean-Damien Desjonquieres, Alejandro Egido, Marco Fornari, Cristina Martin-Puig, Walter H.F. Smith

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

Thu, Nov 09 2023, 14:00 - 15:45 - Esperanza Beach Room (Lobby)

IPM2023_001 - [Sentinel-6 Hydrology Measurements Capability Demonstration](#)

Jean-Damien Desjonquieres (Jet Propulsion Laboratory, California Institute of Technology.), Nick LaHaye (Jet Propulsion Laboratory, California Institute of Technology.), Shailen Desai (Jet Propulsion Laboratory, California Institute of Technology.)

IPM2023_002 - [SWOT platform stability challenges to maximize KaRIn performances](#)

Carole Dufour (Thales Alenia Space), Fabien d'ESTE (Thales Alenia Space), Laia RAMIO-TOMAS (Thales Alenia Space), Magali TELLO (Centre National d'Etudes Spatiales), Nathalie STEUNOU (Centre National d'Etudes Spatiales)

IPM2023_003 - [New processing capabilities in the SPP chain for improving the Sentinel-3 and Sentinel-6 altimetric parameter estimates](#)

Laetitia Rodet (CLS), Salvatore Dinardo (EUMETSAT), Samira Amraoui (Bioceanor), Thomas Moreau (CLS), Anna Mangilli (CLS), Marta Alves (CLS), François Boy (CNES), Nicolas Picot (CNES)

Instrument Processing: Propagation, Wind Speed and Sea State Bias

Session chairs: Shannon Brown, Cristina Martin-Puig, Estelle Obligis

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

Thu, Nov 09 2023, 14:00 - 15:45 - Esperanza Beach Room (Lobby)

IPC2023_001 - [Examining interplay between ionospheric delay and sea state bias range corrections](#)

Hui Feng (University of New Hampshire), Doug Vandemark (University New Hampshire)

Outreach, Education and Altimetric Data Services

Session chairs: Hayley Evers-King, Jack McNelis, Vinca Rosmorduc, Margaret Srinivasan

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

Thu, Nov 09 2023, 14:00 - 15:45 - Esperanza Beach Room (Lobby)

ODS2023_001 - [Altimetry Missions Applications Support: An international collaboration for the Jason-series, Sentinel 6 & SWOT](#)

Margaret Srinivasan (Jet Propulsion Laboratory, California Institute of Technology), Vardis Tsonetos (Jet Propulsion Laboratory, California Institute of Technology), Matthew Bonnema (Jet Propulsion Laboratory, California Institute of Technology), Santiago Peña-Luque (CNES), Nicolas Picot (CNES)

Precision Orbit Determination

Session chairs: Sean Bruinsma, Alexandre Couhert, Frank Lemoine
No poster in this session

Regional and Global CAL/VAL for Assembling a Climate Data Record

Session chairs: Pascal Bonnefond, Shailen Desai, Luisella Giulicchi, Bruce Haines, Eric Leuliette, Nicolas Picot

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

Thu, Nov 09 2023, 14:00 - 15:45 - Esperanza Beach Room (Lobby)

CVL2023_001 - [Extending the Corsica facilities up to SWOT swath](#)

Pascal Bonnefond (Observatoire de Paris - SYRTE), Olivier Laurain (OCA-Géoazur), Michel Calzas (DT-INSU), Christine Drezen (DT-INSU), Lionel Fichen (DT-INSU), Antoine Guillot (DT-INSU), Thierry Guinle (CNES), Nicolas Picot (CNES)

CVL2023_002 - [A Study on the Effectiveness of GNSS Buoys at Harvest](#)

Andy Wu (Jet Propulsion Laboratory, California Institute of Technology), Shailen Desai (Jet Propulsion Laboratory, California Institute of Technology), Bruce Haines (Jet Propulsion Laboratory, California Institute of Technology)

CVL2023_003 - [Catalina Island Dual Band Transponder](#)

Jean-Damien Desjonqueres (Jet Propulsion Laboratory, California Institute of Technology), Bruce Haines (Jet Propulsion Laboratory, California Institute of Technology), Gerald Walsh (Jet Propulsion Laboratory), Michael Ciminera (Jet Propulsion Laboratory, California Institute of Technology), Shailen Desai (Jet Propulsion Laboratory, California Institute of Technology)

CVL2023_004 - [Calibration of Sentinel-3 altimeter data using a corner reflector](#)

Claire Maraldi (CNES), Samira Amraoui (CLS), François Boy (CNES), Jean-Luc Courrière (CNES), Sophie Le Gac (CNES), François-Xavier Marmet (CNES), Thomas Moreau (CLS), Nicolas Picot (CNES), Cédric Tourain (CNES), Franck Borde (ESA/ESTEC)

CVL2023_005 - [Radar Altimetry Calibration With Corner Reflectors: Current Status And Future Plans](#)

Ferran Gibert (isardSAT SL), Adrià Gómez-Olivé (isardSAT SL), Albert Garcia-Mondéjar (isardSAT SL), Adrián Flores de la Cruz (isardSAT SL), Sergi Hernández (isardSAT SL), Mònica Roca i Aparici (isardSAT SL)

CVL2023_006 - [Absolute Calibration of the Chinese HY-2B Altimetric Mission with Fiducial Reference Measurement Standards](#)

Stelios Mertikas (Technical University of Crete), Mingsen Lin (National Satellite Ocean Application Service), Dimitrios Piretzidis (Space Geomatica), Costas Kokolakis (Technical University of Crete), Craig Donlon (European Space Agency, ESTEC), Chaofei Ma (National Satellite Ocean Application Service), Yufei Zhang (National Satellite Ocean Application Service), Yongjun Jia (National Satellite Ocean Application Service), Bo Mu (National Satellite Ocean Application Service), Xenophon Frantzis (Technical University of Crete), Achilles Tripolitsiotis (Space Geomatica), Lei Yang (First Institute of Oceanography)

CVL2023_007 - [How to reach the scientific uncertainty requirements for scientific questions in future altimetry missions?](#)

Anne Barnoud (Magellium), Michaël Ablain (Magellium), Benoit Meyssignac (LEGOS), Emma Wooliams (NPL), Sajedah Behnia (NPL), Hannah Cheales (NPL), Jonathan Mittaz (University of Reading), Sylvie Labroue (CLS), Pierre Thibaut (CLS), Ngan Tran (CLS), Craig Donlon (ESA), Robert Cullen (ESA)

CVL2023_008 - [Assessment of Reprocessed TOPEX/Jason/Sentinel-6 Altimetry: Impact on Global Mean Sea Level Estimates](#)

Brian Beckley (KBR Inc./NASA GSFC), Xu Yang (KBR Inc. / NASA GSFC), Frank Lemoine (NASA GSFC), Richard Ray (NASA GSFC), Michael Croteau (NASA GSFC), Nikita Zelensky (University of Maryland), Gary Mitchum (University of South Florida), Josh Willis (NASA JPL), Jean-Damien Desjonqueres (NASA JPL), Severine Fournier (NASA JPL), Shannon Brown (NASA JPL), Shailen Desai (NASA JPL)

CVL2023_009 - [Homogeneous multi-mission 20Hz sea level anomaly products assessment](#)

Cecile Kocha (cls), sabine philipps (cls)

CVL2023_010 - [how to get satellite data closer to insitu data on wind wave copernicus service products](#)

Cecile Kocha (cls), alexandre philip (cls)

CVL2023_011 - [CryoSat long-term ocean data analysis and validation: final words on GOP Baseline-C](#)

Marc Naeije (TU Delft / Space Engineering), Ernst Schrama (TU Delft / Space Engineering), Alessandro Di Bella (ESA/ESRIN)

CVL2023_012 - [Linking the Permanent Service for Mean Sea Level's \(PSMSL\) global mean sea level dataset to the ellipsoid](#)

Andrew Matthews (National Oceanography Centre), Elizabeth Bradshaw (National Oceanography Centre), Chanmi Kim (National Oceanography Centre), Chris Banks (National Oceanography Centre)

CVL2023_013 - [Towards validation of SWOT in the coastal zone: a radar altimetry and water level gauge case study in the Bristol Channel and Severn River-Estuary system](#)

Dougal Lichtman (National Oceanography Centre, UK), Chris Banks (National Oceanography Centre, UK), Francisco Calafat (National Oceanography Centre, UK), Christine Gommenginger (National Oceanography Centre, UK), Paul Bell (National Oceanography Centre, UK)

CVL2023_014 - [PATASWOT: a Cal/Val experiment in the Argentine Continental Shelf during the 1-day repeat orbit of SWOT](#)

Martin Saraceno (Universidad de Buenos Aires), Laura Agustina Ruiz Etcheverry (Universidad de Buenos Aires), Nicolas Aubone (Universidad de Buenos Aires), Melina Mabel Martinez (Universidad de Buenos Aires)

Science I: Understanding and Quantifying Regional and Global Sea Level Budgets

Session chairs: Anne Barnoud, Benjamin Hamlington, Benoit Meyssignac

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

Thu, Nov 09 2023, 14:00 - 15:45 - Esperanza Beach Room (Lobby)

SC12023_001 - [The influence of the 1991 Eruption of Mt Pintubo on Global and Regional Sea Level Rise](#)

John Fasullo (NCAR), R. S. Nerem (CU Boulder)

SC12023_002 - [In Search of the Greenland Ice Sheet Sea Level Fingerprint](#)

Ian Fenty (JPL), Benjamin Newcomb (Brown University), Wang Ou (NASA JPL/Caltech)

SC12023_003 - [Atlantic meridional overturning circulation modulates flood risk along the United States southeast coast](#)

Denis Volkov (CIMAS/University of Miami/NOAA-AOML), Kate Zhang (JIFRESSE, University of California Los Angeles), William Johns (University of Miami), Joshua Willis (Jet Propulsion Laboratory), Will Hobbs (University of Tasmania), Marlos Goes (CIMAS/University of Miami/NOAA-AOML), Hong Zhang (Jet Propulsion Laboratory), Dimitris Menemenlis (Jet Propulsion Laboratory)

Science II: Large Scale Ocean Circulation Variability and Change

Session chairs: Weiqing Han, Nathalie Zilberman

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

Thu, Nov 09 2023, 14:00 - 15:45 - Esperanza Beach Room (Lobby)

SC22023_001 - [Daily monitoring of the Kuroshio over the Izu Ridge using ferry-onboard GNSS](#)

Kaoru Ichikawa (RIAM, Kyushu University), Ryosuke Sakemi (RIAM, Kyushu University), Jyoushiro Noda (RIAM, Kyushu University), Kei Yufu (RIAM, Kyushu University)

SC22023_002 - [Atmospheric Intraseasonal Oscillations Leading to Sea Level Extremes in Coastal Indonesia during Recent Decades](#)

William Kamp (Department of Atmospheric and Oceanic Sciences, University of Colorado Boulder), Weiqing Han (Department of Atmospheric and Oceanic Sciences, University of Colorado Boulder), Lei Zhang (Department of Atmospheric and Oceanic Sciences, University of Colorado Boulder), Shoichiro Kido (Application Laboratory (APL), Research Institute for Value-Added-Information Generation (VAiG), Japan Agency for Marine-Earth Science and Technology (JAMSTEC)), Julian McCreary (University of Hawaii, Honolulu)

Science III: Mesoscale and sub-mesoscale oceanography

Session chairs: Rosemary Morrow, Heather Roman-Stork, Clément Ubelmann, Jinbo Wang

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

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SC32023_001 - [Quantifying errors on SWOT sea surface heights in the Southern Ocean](#)

Jessica Caggiano (University of South Florida), Don Chambers (University of South Florida)

SC32023_002 - [Reconstruction of temperature and salinity profiles using vertically coupled temperature-salinity EOF modes incorporating eddy information](#)

Osamu Isoguchi (RESTEC)

SC32023_003 - [Understanding the Role of Gulf Stream Eddies on Marine Heatwaves in the North Atlantic Ocean using Altimetry](#)

Subrahmanyam Bulusu (University of South Carolina), Susan Harrison (University of South Carolina), Corinne Trott (Naval Research Laboratory, Mississippi)

SC32023_004 - [Agulhas Bank Circulation](#)

Ricardo Matano (Oregon State University), Vincent Combes (Institut Mediterrani d'Estudis Avançats), Ted Strub (Oregon State University)

SC32023_005 - [Circulation and Cross-Shelf Exchanges in the Agulhas Bank Region](#)

Vincent Combes (IMEDEA (Instituto Mediterráneo de Estudios Avanzados)), Ricardo Matano (Oregon State University), Ted Strub (Oregon State University)

SC32023_006 - [Best practices for intercomparing ADCP and altimeter statistics for submesoscale analyses: Lessons learned from the California Current System, the Gulf Stream, and the tropics](#)

Sarah Gille (Scripps Institution of Oceanography, UC San Diego), Saulo Soares (Scripps Institution of Oceanography, UC San Diego), Teresa Chereskin (Scripps Institution of Oceanography, UC San Diego), Julia Hummon (University of Hawaii at Manoa), Eric Firing (University of Hawaii at Manoa), Steve Howell (University of Hawaii at Manoa)

SC32023_007 - [Multiple Lagrangian jet-core structures in the Malvinas Current](#)

Nicolás Bodnariuk (Departamento de Ciencias de la Atmósfera y los Océanos; Facultad de Ciencias Exactas y Naturales Universidad de Buenos Aires (DCAO, FCEN-UBA) Ciudad Autónoma de Buenos Aires, Argentina; Centro de Investigaciones del Mar y la Atmósfera (CIMA/CONICET-UBA);), Martín Saraceno (Departamento de Ciencias de la Atmósfera y los Océanos; Facultad de Ciencias Exactas y Naturales Universidad de Buenos Aires (DCAO, FCEN-UBA) Ciudad Autónoma de Buenos Aires, Argentina; Centro de Investigaciones del Mar y la Atmósfera (CIMA/CONICET-UBA);), Laura A. Ruiz-Etcheverry (Departamento de Ciencias de la Atmósfera y los Océanos; Facultad de Ciencias Exactas y Naturales Universidad de Buenos Aires (DCAO, FCEN-UBA) Ciudad Autónoma de Buenos Aires, Argentina; Centro de Investigaciones del Mar y la Atmósfera (CIMA/CONICET-UBA);), Claudia Gloria Simionato (Departamento de Ciencias de la Atmósfera y los Océanos; Facultad de Ciencias Exactas y Naturales Universidad de Buenos Aires (DCAO, FCEN-UBA) Ciudad Autónoma de Buenos Aires, Argentina; Centro de Investigaciones del Mar y la Atmósfera (CIMA/CONICET-UBA);), Fernando Andrade-Canto (Departamento de Observación y Estudio de la Tierra, la Atmósfera y el Océano; El Colegio de la Frontera Sur; Chetumal, Quintana Roo, Mexico), Francisco Javier Beron-Vera (Department of Atmospheric Sciences; Rosenstiel School of Marine, Atmospheric & Earth Science University of Miami Miami, Florida, USA), Olascoaga María Josefina (Department of Ocean Sciences; Rosenstiel School of Marine, Atmospheric & Earth Science University of Miami Miami, Florida, USA)

SC32023_008 - [Wide-Swath Ocean Altimetry Using Multisatellite Single-Pass Interferometry](#)

Andreas Theodosiou (Delft University of Technology), Marcel Kleinherenbrink (Delft University of Technology), Paco Lopez-Dekker (Delft University of Technology)

SC32023_009 - [Implementation of the Optical Flow to Estimate the Propagation of Eddies in the South Atlantic Ocean](#)

Denis Volkov (CIMAS/University of Miami/NOAA-AOML), Shahriar Negahdaripour (University of Miami)

SC32023_010 - [Evaluating Spatio-Temporal Variability in Sea Level and Eddies in the Azores Region](#)

Coline Bodren (École Nationale Supérieure de Techniques Avancées (ENSTA) Bretagne, Brest), Isabel Iglesias (Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR/CIMAR), Matosinhos), Fabiola Amorim (Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR/CIMAR), Matosinhos), Clara Lázaro (Faculdade de Ciências, Universidade do Porto (FCUP), Porto/Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR/CIMAR), Matosinhos)

SC32023_011 - [Scale-dependent anisotropy of the ocean velocity field](#)

Oleg Melnichenko (Earth and Space Research, Seattle, WA)

SC32023_012 - [Templex-detected patterns and their connection to elephant seal prey catch attempt in the South Atlantic](#)

Juan Cruz Bonel (IFAECI), Denisse Sciamarella (CNRS), Martin Saraceno (CIMA), Christophe Guinet (CEBC), Nicolás Bodnariuk (CIMA), Gisela Charó (CIMA)

SC32023_013 - [Lagrangian tracking of meso and submesoscale features in the Southwestern Atlantic](#)

Martin Saraceno (Universidad de Buenos Aires), Nicolas Bodnariuk (University of Buenos Aires), Laura Agustina Ruiz Etcheverry (Universidad de Buenos Aires), Claudia Simionato (Universidad de Buenos Aires), Javier Beron-Vera (RSMAS), Olascoaga Josefina (RSMAS)

SC32023_014 - [Fine scale observations to monitor water exchanges in the Baltic Sea](#)

Luciana Fenoglio (University of Bonn), Volker Mohrholz (Leibniz Institute for Baltic Sea Research Warnemünde Dept. of Physical Oceanography and Instrumentation), Jürgen Kusche (University of Bonn, Institute of Geodesy and Geoinformation)

SC32023_015 - [New Gridding of Sea Level Anomalies using Co-variables](#)

Marie-Christin Juhl (DGFI-TUM), Marcello Passaro (DGFI-TUM), Denise Dettmering (DGFI-TUM)

Science IV: Altimetry for Cryosphere and Hydrology

Session chairs: Charon Birkett, Jérôme Bouffard, Jean-Francois Crétaux, Sinead Farrell, Karina Nielsen

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

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SC42023_001 - [Sentinel-3 Inland waters level-2 thematic products: latest results based on full mission reprocessing validation](#)

Filomena Catapano (RHEA c/o ESRIN), Pierre Femenias (ESA), Jerome Bouffard (ESA)

SC42023_002 - [New Sentinel-3 Thematic Products for Inland Waters, Sea Ice and Land Ice](#)

Jérémie Aublanc (CLS), Anouk Chamayou (CLS), Sylvie Labroue (CLS), Giovanni D'Apice (CLS), Nicolas Taburet (CLS), Julien Renou (CLS), Karina Nielsen (DTU), Sara Fleury (LEGOS), Camille Boulard (LEGOS), Fanny Piras (CLS), Stefan Hendricks (AWI), Sebastian Simonsen Bjerregaard (DTU), Stine Rose Kildegaard (DTU), Pierre Féménias (ESA/ESRIN), Filomena Catapano (RHEA Group for ESA/ESRIN)

SC42023_003 - [Sentinel-3 Sea Ice level-2 thematic products: latest results based on full mission reprocessing validation](#)

Filomena Catapano (RHEA c/o ESRIN), Pierre Femenias (ESA), Jerome Bouffard (ESA)

SC42023_004 - [CryoSat mission status: products, science, and future evolutions](#)

Alessandro Di Bella (ESA), Jerome Bouffard (ESA), Tommaso Parrinello (ESA)

SC42023_005 - [SEA ICE RETRIEVAL FROM CRISTAL: DESIGN, DEVELOPMENT AND VALIDATION](#)

Michele Scagliola (Rhea for European Space Agency), Jerome Bouffard (European Space Agency), Paolo Cipollini (European Space Agency)

SC42023_006 - [LAND ICE AND HYDROLOGY RETRIEVAL FROM CRISTAL: DESIGN, DEVELOPMENT AND VALIDATION](#)

Michele Scagliola (Rhea for European Space Agency), Jerome Bouffard (European Space Agency), Paolo Cipollini (European Space Agency)

Sentinel-6 Validation Team (S6VT) Meeting

Session chairs: Pascal Bonnefond, Craig Donlon, Alejandro Egido, Severine Fournier, Eric Leuliette, Remko Scharroo, Josh Willis

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

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S6VT2023_001 - [A Complex Correction for the End-to-End Range Impulse Response of the Sentinel-6 MF Altimeter System](#)

Salvatore Dinardo (eumetsat), Cristina Martin-Puig (EUMETSAT), Marco Fornari (RHEA for ESA), Robert Cullen (ESA), Remko Scharroo (EUMETSAT)

S6VT2023_002 - [Calibration and Validation of the S6 altimeter sigma-0 and the radiometer brightness temperature over natural surfaces](#)

Maria Jose Escorihuela (isardSAT), Xavier Domingo (isardSAT), Mònica Roca (isardSAT), Pablo Garcia (isardSAT)

Synergies between Argo, GRACE and Altimetry

Session chairs: Felix Landerer, Steve Nerem, Susan Wijffels, Nathalie Zilberman

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

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ARG2023_001 - [Monitoring the regional Ocean Heat Content change over the Atlantic Ocean with the space geodetic approach](#)

Victor Rousseau (Magellium), Victor Rousseau (Magellium), Robin Fraudeau (Magellium), Matthew Hammond (NOC), Odilon Joël Houndegnonto (Univ Brest, CNRS, Ifremer, IRD, LOPS, IUEM, F29280, JPL), Michaël Ablain (Magellium), Alejandro Blazquez (LEGOS, Univ Toulouse, CNES, CNRS, UPS, IRD), Fransisco Mir Calafat (NOC), Damien Desbruyères (Univ Brest, CNRS, IFREMER, IRD, LOPS, IUEM, F29280), Giuseppe Foti (NOC), William Llovel (Univ Brest, CNRS, IFREMER, IRD, LOPS, IUEM, F29280), Florence Marti (Magellium), Benoît Meyssignac (LEGOS, Univ Toulouse, CNES, CNRS, UPS, IRD), Marco Restano (SERCO-ESRIN), Jérôme Benveniste (ESA/ESRIN)

The Geoid, Mean Sea Surfaces and Mean Dynamic Topography (ROUND TABLE)

Session chairs: Ole B. Andersen, Yannice Faugere

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

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GEO2023_001 - [Lake Geoid and gravity from altimetry](#)

Sarah E Franze (Dr), Ole Baltazar Andersen (DTU Space)

GEO2023_002 - [Development of Puerto Rico and US Virgin Islands sea surface topography for vertical datum transformation using retracked altimetry and tide gauges](#)

Inseong Jeong (NOAA/UCAR), Stephen White (NOAA)

GEO2023_003 - [The mean dynamic topography model DTUUH22MDT from satellite and in-situ observations](#)

Per Knudsen (DTU Space), Ole Andersen (DTU Space), Nikolai Maximenko (University of Hawaii), Jan Hafner (University of Hawaii)

GEO2023_004 - [Accuracy and Resolution of SWOT Altimetry: Foundation Seamounts](#)

David Sandwell (UCSD), Yao Yu (UCSD)

GEO2023_005 - [The 2023 Hybrid Mean Sea Surface](#)

Philippe Schaeffer (CLS), Ml. Pujol (CLS), P. Veillard (CLS), Y. Faugere (CLS), G. Dibarboure (CNES), N. Picot (CNES), D. Sandwell (SIO), Y. Yu (SIO), H. Harper (SIO), O. Andersen (DTU), A. Abulaitjiang (DTU), S. Zhang (DTU), S.K. Rose (DTU)

GEO2023_006 - [The first validation of NMBU23 – an updated coastal mean sea surface in Norway based on combination of new-generation laser and radar altimetry](#)

Matea Tomic (Department of Geomatics, Faculty of Science and Technology (RealTek), Norwegian University of Life Sciences (NMBU)), Ole Baltazar Andersen (DTU Space, Technical University of Denmark,)

GEO2023_007 - [ICESAT-2 altimetry for coastal MSS improvement](#)

Artemis Vrettou (Dr), Ole Baltazar Andersen (Professor)

Tides, internal tides and high-frequency processes (ROUND TABLE)

Session chairs: Loren Carrere, Florent Lyard, Richard Ray

Wed, Nov 08 2023, 16:15 - 18:00 - Esperanza Beach Room (Lobby)

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TID2023_001 - [ALBATROSS: Improving the bathymetry and ocean tide knowledge in the Southern Ocean with satellite observations](#)

Carole Berlot (Noveltis), Eva Merle (Noveltis), Ole Andersen (DTU Space), Michel Tsamados (UCL), Geir Moholt (NPI), Mahmoud El Hajj (Noveltis), Florent Lyard (LEGOS), Marco Restano (ESA), Jerome Benveniste (ESA)

TID2023_002 - [Improving the geophysical corrections for altimeters and SWOT: tides and DAC](#)

Loren Carrere (CLS), F. Lyard (LEGOS), M-L Dabat (CLS), M Tchilibou (CLS), E Fouchet (NOVELTIS), Y Faugère (CLS), G Dibarboue (CNES)

TID2023_003 - [Seasonal estimations of baroclinic tides using MIOST model and altimeter data](#)

Loren Carrere (CLS), F. Lyard (LEGOS), M-L Dabat (CLS), M Tchilibou (CLS), C Ubelmann (DATLAS), S Barbot (IFREMER), Y Faugère (CLS), G Dibarboue (CNES)

TID2023_004 - [Arctic Ocean tidal constituents atlas](#)

Michael Hart-Davis (DGFI-TUM), Susan Howard (Earth and Space Research), Richard Ray (Geodesy & Geophysics Lab., NASA Goddard Space Flight Center), Ole Anderesen (National Space Institute, Technical University of Denmark), Laurie Padman (Earth and Space Research), Frank Nilsen (The University Centre in Svalbard), Denise Dettmering (DGFI-TUM)

TID2023_005 - [How errors in ECMWF atmospheric tides corrupt the DAC correction](#)

Richard Ray (NASA/GSFC)

TID2023_006 - [Ocean forcing of tidal winds: evidence from harmonic analysis of altimeter-derived wind speed](#)

Edward Zaron (Oregon State University)

TID2023_007 - [Towards TPXO10, the next version of the Oregon State University ocean tide model](#)

Edward Zaron (Oregon State University), Lana Erofeeva (Oregon State University), Richard Ray (NASA/GSFC), Gary Egbert (Oregon State University)

TID2023_008 - [Internal tide model ZHAO23: A milestone achieved by 30 years of satellite altimetry sea surface height measurements from 1993 to 2022](#)

Zhongxiang Zhao (University of Washington)

Forums Sessions

Application development for Operations (ROUND TABLE)

Session chairs: Deirdre Byrne, Gerald Dibarbouré, Gregg Jacobs, Carolina Nogueira Loddo

No “Forum only” in this session but all the presentations (oral or poster) will have their counterpart in the Forum

CFOSAT (ROUND TABLE)

Session chairs: Lotfi Aouf, Danièle Hauser, Joanna Staneva, Doug Vandemark

- [SSB modeling from CFOSAT data](#)

Ngan Tran (CLS), Laiba Amarouche (CLS), Cécile Kocha (CLS), Ronan Rialland (CLS), Victor Quet (CLS), Clara Grau (CLS), Annabelle Ollivier (CLS), Jean-Alexis Daguze (CLS), Thibault Pirotte (CLS), Claire Maraldi (CNES), Gérald Dibarboure (CNES)

Coastal Altimetry

Session chairs: Florence Birol, Brett Buzzanga, Joana Fernandes, Clara Lazaro, Marcello Passaro

- [Observations of sea state variability across the south-west barrier reef-lagoon system of New-Caledonia from high-resolution Sentinel-3 measurements](#)

Guillaume Dodet (IFREMER), Simon Dechamps (ENSTA Bretagne), Swen Jullien (IFREMER), Maxime Duphil (UMR ENTROPIE)

- [Coastal sea state representation, variability and uncertainty analysis from Jason-3 and Sentinel-6 Michael Freilich tandem phase experiment](#)

Ben Timmermans (National Oceanography Centre), Christine Gommenginer (National Oceanography Centre (Southampton)), Chris Banks (National Oceanography Centre (Liverpool))

Instrument Processing: Measurement and Retracking

Session chairs: Francois Boy, Phil Callahan, Jean-Damien Desjonquieres, Alejandro Egido, Marco Fornari, Cristina Martin-Puig, Walter H.F. Smith

- [Using image processing techniques to detect inland water bodies in Sentinel-6MF Fully Focused SAR radargrams and improve water surface height retrieval: A case study over Garonne River.](#)

Jean-Alexis Daguzé (CLS), Sophie Le Gac (CNES), Gabriel Calassou (CLS), François Boy (CNES)

- [Open source PySAMOSA SAR Satellite altimetry retracking software](#)

Florian Schlembach (Currently no affiliation), Marcello Passaro (Deutsches Geodätisches Forschungsinstitut der Technischen Universität München (DGFITUM), Arcisstraße 21, 80333 Munich, Germany)

Instrument Processing: Propagation, Wind Speed and Sea State Bias

Session chairs: Shannon Brown, Cristina Martin-Puig, Estelle Obligis

- [Analysis of Waves Dynamics Impact on Sentinel-6MF Delay/Doppler Measurements](#)

Laïba Amarouche (CLS), Ngan Tran (CLS), Thibault Pirotte (CLS), Mohamed Mrad (CLS),
Hélène Etienne (CLS), Thomas Moreau (CLS), François Boy (CNES), Claire Maraldi (CNES), Craig Donlon (ESA)

Outreach, Education and Altimetric Data Services

Session chairs: Hayley Evers-King, Jack McNelis, Vinca Rosmorduc, Margaret Srinivasan

No “Forum only” in this session but all the presentations (oral or poster) will have their counterpart in the Forum

Precision Orbit Determination

Session chairs: Sean Bruinsma, Alexandre Couhert, Frank Lemoine

- [Impact of ITRF2020 on DORIS, GNSS, and SLR observations for the CNES altimeter satellite orbits](#)
Eléonore Saquet (CLS)
- [Enhancing satellite orbit accuracy for sea level monitoring through Earth radiation pressure modeling](#)
Maya Nocet-Binois (CNES-IPGP)
- [Updated mean gravity field model for Precise Orbit Determination: CNES GRGS.RL05MF combined GRACE SLR DORIS](#)
Jean-Michel Lemoine (CNES), Stéphane Bourgogne (Stellar Space Studies), Hugues Capdeville (CLS), Franck Reinquin (CNRS)
- [Introduction of 2/rev harmonics in the empirical forces model for Sentinel altimetry satellites](#)
Georgia Katsigianni (CLS), Flavien Mercier (CNES), Alexandre Couhert (CNES), John Moyard (CNES)
- [Assessment of Jason-3 and Sentinel-6 MF residual radiation pressure modeling errors](#)
Marie Cherrier (Celad for CLS/CNES), Alexandre Couhert (CNES), Flavien Mercier (CNES)

Regional and Global CAL/VAL for Assembling a Climate Data Record

Session chairs: Pascal Bonnefond, Shailen Desai, Luisella Giulicchi, Bruce Haines, Eric Leuliette, Nicolas Picot

- [Jason-3 inflight performance](#)
Benjamin Flamant (CLS)
- [Haiyang-2D data assessment and performance for potential assimilation into DUACS and CMEMS products](#)
Alexandre Philip (CLS), Matthias Raynal (CNES), Jean-Michel Lachiver (CNES)
- [Global Ocean Data Quality Assessment of SARAL/AltiKa's GDR-F products](#)
Sabine Philipps (CLS), Nathan Kientz (alten), Pierre Prandi (CLS), François Bignalet-Cazalet (CNES), Nicolas Picot (CNES)
- [Estimation of the Topex A/B bias and associated uncertainty - A mutli methods approach](#)
Victor Quet (CLS (Collecte Localisation Satellite)), Anna Mangilli (CLS (Collecte Localisation Satellite)), Franck Octau (ALTEN pour CLS (Collecte Localisation Satellite)), Pierre Prandi (CLS (Collecte Localisation Satellite)), Benoit Meyssignac (CNES/LEGOS)
- [Jason-2 GDR-F reprocessing impact on mission performances over ocean](#)
Hélène ROINARD (CLS), Jerome Coquelin (ALTEN for CLS), François Bignalet-Cazalet (CNES)

Science I: Understanding and Quantifying Regional and Global Sea Level Budgets

Session chairs: Anne Barnoud, Benjamin Hamlington, Benoit Meyssignac

- [Contribution of Time-varying Discharge from Greenland and Rivers to Regional Sea Level Change in the Arctic Ocean](#)

Soumaia Tajouri (LOPS - UBO/CNRS/IFREMER/IRD), William Llovel (LOPS - CNRS/IFREMER/IRD/UBO), Florian Sévellec (LOPS - CNRS/IFREMER/IRD/UBO), Thierry Penduff (Institut des Géosciences de l'Environnement, Grenoble), Jean-Marc Molines (Institut des Géosciences de l'Environnement, Grenoble), Stéphanie Leroux (Institut des Géosciences de l'Environnement, Grenoble)

Science II: Large Scale Ocean Circulation Variability and Change

Session chairs: Weiqing Han, Nathalie Zilberman

- [Collapses, maxima, multi-year modulation and trends of the Zapiola Anticyclonic Circulation: insights from Mercator Reanalysis.](#)

Léa Poli (LOCEAN), Camila Artana (Institut de Ciències del Mar, Barcelona), Christine Provost (LOCEAN-IPSL, Sorbonne Université (UPMC), Paris), Jérôme Sirven (LOCEAN-IPSL, Sorbonne Université (UPMC), Paris), Ruben Le Blanc-Pressenda (LOCEAN-IPSL, Sorbonne Université (UPMC), Paris)

- [Detection of Dynamic Fronts Using Satellite Altimetry](#)

Lisandro Arbilla (UBA-CONICET-SHN/IADO), Laura Ruiz Etcheverry (UBA-CONICET-CIMA-IFAECI), Celeste López Abbate (IADO-CONICET)

Science III: Mesoscale and sub-mesoscale oceanography

Session chairs: Rosemary Morrow, Heather Roman-Stork, Clément Ubelmann, Jinbo Wang

- [Regional mapping of short mesoscale ocean dynamics from altimetry](#)

Florian Le Guillou (ESA/ESRIN), Clément Ubelmann (Datlas), Marie-Helene Rio (ESA/ESRIN)

- [First look at SWOT nadir and KaRIn data in regional seas with 1-day sampling](#)

Rosemary Morrow (CTOH / LEGOS), Florence Birol (LEGOS / CTOH), Fabien Blarel (LEGOS/CTOH), Robin Chevrier (CLS Group / LEGOS), Fabien Leger (LEGOS / CTOH), Fernando Nino (LEGOS / CTOH), Oscar Vergara (CLS Group / LEGOS)

- [Models of the sea-surface height expression of the internal-wave continuum](#)

R. M. Samelson (Oregon State University), J. T. Farrar (Woods Hole Oceanographic

Institution)

- [Adapting ocean prediction systems to observations](#)

Gregg Jacobs (Naval Research Laboratory), Brent Bartels (Peraton), Joseph D'Addezio (Naval Research Laboratory), Chris Dehaan (Peraton)

Science IV: Altimetry for Cryosphere and Hydrology

Session chairs: Charon Birkett, Jérôme Bouffard, Jean-Francois Crétaux, Sinead Farrell, Karina Nielsen

- [What can we learn from numerical simulations of satellite altimetry signals over rivers? Detailed study and comparison to a dataset of Sentinel-6MF individual echoes](#)

Elliott Bourget (ISAE/SUPAERO, KTH, CNES), Sophie Le Gac (CNES), François Boy (CNES)

- [Nadir altimetry over land: achievements using the Open-Loop Tracking Command \(OLTC\) and benefits for inland waters users](#)

Sophie Le Gac (CNES), Florian Wery (CNES), Alexandre Homerin (NOVELTIS), Jean-Baptiste Barneix (NOVELTIS), Malik Boussaroque (HydroMatters, LEGOS), François Boy (CNES), Nicolas Picot (CNES), Pierre Féménias (ESA/ESRIN)

- [Sea level maps of the Arctic \(and southern\) ocean from satellite altimetry from 2011 to 2021](#)

PIERRE VEILLARD (CLS), PIERRE PRANDI (CLS), Yannice Faugère (CLS), Matthis Auger (University of Tasmania), Gérald Dibarboure (CNES)

Sentinel-6 Validation Team (S6VT) Meeting

Session chairs: Pascal Bonnefond, Craig Donlon, Alejandro Egido, Severine Fournier, Eric Leuliette, Remko Scharroo, Josh Willis

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Synergies between Argo, GRACE and Altimetry

Session chairs: Felix Landerer, Steve Nerem, Susan Wijffels, Nathalie Zilberman

- [The Global Energy and Water Exchanges \(GEWEX\) Earth's Energy Imbalance Assessment](#)
Maria Hakuba (Jet Propulsion Laboratory, California Institute of Technology)

The Geoid, Mean Sea Surfaces and Mean Dynamic Topography (ROUND TABLE)

Session chairs: Ole B. Andersen, Yannice Faugere

- [ICESat-2 for Coastal MSS Determination—Evaluation in the Norwegian Coastal Zone](#)

Matea Tomić (Department of Geomatics, Faculty of Science and Technology (RealTek), Norwegian University of Life Sciences (NMBU)), Ole Baltazar Andersen (DTU Space, Technical University of Denmark)

Tides, internal tides and high-frequency processes (ROUND TABLE)

Session chairs: Loren Carrere, Florent Lyard, Richard Ray

- [Altimetry-derived ocean tides in the Arctic: a Foxe Basin case study](#)

Michael Hart-Davis (DGFI-TUM), Ole Andersen (National Space Institute, Technical University of Denmark), Richard Ray (Geodesy & Geophysics Lab., NASA Goddard Space Flight Center), Denise Dettmering (DGFI-TUM)