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# 2022 Ocean Surface Topography Science Team Meeting

Palazzo del Cinema at Lido di Venezia, Venice (Italy)

Monday, October 31 2022 - Friday, November 4 2022

The 2022 Ocean Surface Topography Meeting will occur 31 October - 4 November 2022 (postponement of OSTST 2021) 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), a splinter on Coastal Altimetry, and a splinter on CFOSAT. Sentinel-6A Michael Freilich being now the reference mission since April 2022, contributions that support this mission are highly encouraged.

All the presentations will be available through a forum on <https://ostst.aviso.altimetry.fr> during the full week and at least a week after. This forum will allow people to chat with authors in delayed time. Please note that for people not planning to attend the meeting in person, their presentations will be available also through the same forum (see list of “forum only” contributions from [page 52](#)).

Event's program

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	Monday 31	Tuesday 1	Wednesday 2	Thursday 3	Friday 4
08	Registration and Presentation upload	Registration and Presentation upload	Registration and Presentation upload	Registration and Presentation upload	Registration and Presentation upload
09	OSTST Opening Plenary Session	Instrument Processing: Measurement and Re-tracking	Regional and Global CAL/VAL for Assembling a Climate Data Record	Quantifying Errors and Uncertainties in Altimetry data	OSTST Closing Plenary Session
10	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
11		Precision Orbit Determination	Coastal Altimetry	Sentinel-6 Validation Team (SBVT) feedbacks	The Geoid, Mean Sea Surfaces and Mean Dynamic Topography
Noon					
13	Lunch	Lunch	Lunch	Lunch	Lunch
14	Science Keynotes Session	Outreach, Education and Altimetric Data Services	Science II: Large Scale Ocean Circulation Variability and Change	Poster session part 2	
15		Instrument Processing: Propagation, Wind Speed and Sea State Bias	Tides: internal tides and high-frequency processes		
16	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
17	Science I: Climate data records for understanding the causes of global and regional sea level variability and change	Special Session: Beyond the history of European-US cooperation on altimetry	Science III: Mesoscale and sub-mesoscale oceanography	Science IV: Altimetry for Cryosphere and Hydrology	
18		Poster session part 1			
19		Icebreaker	Conference dinner		

## List of event's sessions

### Monday, October 31 2022

09:00 - 12:30

OSTST Opening Plenary Session  
Sala Grande

14:00 - 15:45

Science Keynotes Session  
Sala Grande

16:15 - 18:00

Science I: Climate data records for understanding the causes of global and regional sea level variability and change  
Sala Grande

### Tuesday, November 01 2022

09:00 - 12:30

Instrument Processing: Measurement and Retracking  
Sala Grande

09:00 - 12:30

Precision Orbit Determination  
Sala Pasinetti

14:00 - 15:45

Instrument Processing: Propagation, Wind Speed and Sea State Bias  
Sala Grande

14:00 - 15:45

Outreach, Education and Altimetric Data Services  
Sala Pasinetti

16:15 - 17:15

Special Session: Beyond the history of European–US cooperation on altimetry  
Sala Grande

17:15 - 18:15

Poster session part 1  
Mezzanine

18:15 - 19:30

Icebreaker

### Wednesday, November 02 2022

09:00 - 12:30

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

09:00 - 10:30

Application development for Operations  
Sala Pasinetti

11:00 - 12:30

Coastal Altimetry  
Sala Pasinetti

14:00 - 15:45

Science II: Large Scale Ocean Circulation Variability and Change  
Sala Grande

14:00 - 15:45

Tides, internal tides and high-frequency processes  
Sala Pasinetti

16:15 - 18:00  
Science III: Mesoscale and sub-mesoscale oceanography  
Sala Grande

18:15 - 19:30  
Conference dinner

### **Thursday, November 03 2022**

09:00 - 10:30  
CFOSAT  
Sala Pasinetti

09:00 - 10:30  
Quantifying Errors and Uncertainties in Altimetry data  
Sala Grande

11:00 - 12:30  
Sentinel-6 Validation Team (S6VT) feedbacks  
Sala Grande

11:00 - 12:30  
The Geoid, Mean Sea Surfaces and Mean Dynamic Topography  
Sala Pasinetti

14:00 - 15:45  
Poster session part 2  
Mezzanine

16:15 - 18:00  
Science IV: Altimetry for Cryosphere and Hydrology  
Sala Grande

### **Friday, November 04 2022**

09:00 - 12:30  
OSTST Closing Plenary Session  
Sala Grande

## Oral sessions

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**Monday, October 31 2022**

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

### OSTST Opening Plenary Session

**Session chairs:** Pascal Bonnefond, Craig Donlon, Eric Leuliette, Remko Scharroo, Josh Willis  
(Mon, Oct 31 2022, 09:00 - 12:30)

#### Sala Grande

**09:00 - 09:05:**

[Welcoming remarks and meeting overview](#)

Pascal Bonnefond (Observatoire de Paris - SYRTE, France)

**09:05 - 09:30:**

[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)

**09:30 - 09:45:**

[Jason-3 mission overview](#)

Christophe Maréchal (CNES, France)

**09:45 - 10:00:**

[SARAL/AltiKa mission overview](#)

Nadège Queruel (CNES, France)

**10:00 - 10:15:**

[Sentinel-3 mission overview](#)

Craig Donlon (ESA/ESTEC, Netherlands), Remko Scharroo (EUMETSAT, Germany)

**10:15 - 10:30:**

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

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

**10:30 - 11:00: Coffee Break**

**11:00 - 11:15:**

[CFOSAT mission overview](#)

Jean-Michel Lachiver (CNES, France)

**11:15 - 11:30:**

[SWOT status](#)

Lee-Lueng Fu (JPL, United States), Rosemary Morrow (LEGOS, France)

**11:30 - 11:45:**

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

#### [Mission](#)

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

**11:45 - 12:00:**

[CRISTAL mission status](#)

Paolo Cipollini (ESA/ESTEC, Netherlands), Cristina Martin-Puig (EUMETSAT, Germany)

**12:00 - 12:15:**

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

Susan E Wijffels (Woods Hole Oceanographic Institution and the Argo Steering Team, United States)

**12:15 - 12:20:**

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

Eric Leuliette (NOAA, United States)

**12:20 - 12:35:**

[What do we really mean by emergency? OSTST and IPCC data and results about the global warming.](#)

François Bignalet-Cazalet (CNES, France), Thomas Crosnier (CNES, France), Pascale Ferrage (CNES, France), Florence Clément (CNES, France), Amandine Guillot (CNES, France)

**12:45 - 14:00: Lunch**

## Science Keynotes Session

**Session chairs:** Pascal Bonnefond, Craig Donlon, Eric Leuliette, Remko Scharroo, Josh Willis (Mon, Oct 31 2022, 14:00 - 15:45)

### Sala Grande

**14:00 - 14:25: Keynote/invited**

[Measuring the Earth energy imbalance from space geodesy to constrain the global energy budget and estimate the climate sensitivity](#)

Jonathan Chenal (LEGOS / ENPC, France), Benoit Meyssignac (LEGOS / CNES, France), Alejandro Blazquez (LEGOS / CNES, France), Robin Guillaume-Castel (LEGOS, France)

**14:25 - 14:50: Keynote/invited**

[Pathways and properties of subpolar North Atlantic water-masses found in the North Sea: a satellite-based Lagrangian perspective](#)

Ezra Eisbrenner (Department of Meteorology, Stockholm University, Sweden), Léon Chafik (Department of Meteorology, Stockholm University, Sweden), Kristofer Döös (Department of Meteorology, Stockholm University, Sweden)

**14:50 - 15:15: Keynote/invited**

[4DVarNN, an end-to-end learning of variational interpolation schemes: current applications on satellite-derived data and on-going developments](#)

Maxime Beauchamp (IMT Atlantique, France), Ronan Fablet (IMT Atlantique, France), Quentin Febvre (IMT Atlantique, France), Mohamed Mahmoud Amar (IMT Atlantique, France), Benjamin Carpentier (CLS, France)

**15:15 - 15:40: Keynote/invited**

[Interferometric Swath Radar Altimetry for the study of the Cryosphere](#)

Noel Gourmelen (University of Edinburgh, United Kingdom)

**15:45 - 16:15: Coffee Break**

# Science I: Climate data records for understanding the causes of global and regional sea level variability and change

**Session chairs:** Benjamin Hamlington, Benoit Meyssignac  
(Mon, Oct 31 2022, 16:15 - 18:00)

## Sala Grande

**16:15 - 16:30:**

[Non-closure of the global mean sea level budget since 2016: contributions of altimetry and](#)

[Argo](#)

Anne Barnoud (Magellium, 1 rue Ariane, 31520 Ramonville Saint-Agne, France), Julia Pfeffer (Magellium, 1 rue Ariane, 31520 Ramonville Saint-Agne, France), Adrien Guérou (CLS, 11 rue Hermès, 31520 Ramonville Saint-Agne, France), Marie-Laure Frery (CLS, 11 rue Hermès, 31520 Ramonville Saint-Agne, France), Mathilde Siméon (CLS, 11 rue Hermès, 31520 Ramonville Saint-Agne, France), Anny Cazenave (LEGOS, 14 avenue Edouard Belin, 31400 Toulouse, France), Jianli Chen (Center for Space Research, University of Texas at Austin, USA), William Llovel (Univ Brest, CNRS, Ifremer, IRD, LOPS, F-29280 Plouzané, France), Virginie Thierry (Univ Brest, Ifremer, CNRS, IRD, LOPS, F-29280 Plouzané, France), Jean-François Legeais (CLS, 11 rue Hermès, 31520 Ramonville Saint-Agne, France), Michaël Ablain (Magellium, 1 rue Ariane, 31520 Ramonville Saint-Agne, France)

**16:30 - 16:45:**

[An initial investigation of multi-sensor coastal zone altimetry](#)

Brett Buzzanga (JPL, United States), Ben Hamlington (JPL, USA)

**16:45 - 17:00:**

[A new network of altimetry-based virtual stations for measuring sea level along the world](#)

[coastlines](#)

Anny Cazenave (LEGOS-CNES, France), Yvan Gouzenes (LEGOS, France), Florence Birol (LEGOS, France), Marcello Passaro (TUM, Germany), Francisco Calafat (NOC, UK), Fabien Leger (LEGOS, France), Andrew Shaw (Skymat, UK), Fernando Nino (LEGOS, France), Jean Francois Legeais (CLS, France), Jerome Benveniste (ESA, Italy)

**17:00 - 17:15:**

[Assessing the Closure of the Sea Level Budget in the Southwest Pacific Basin Using Deep](#)

[Argo](#)

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

**17:15 - 17:30:**

[Secular and seasonal reconstructing of global and regional sea level change](#)

Carsten Ludwigsen (DTU Space, Denmark), Andersen Ole (DTU Space, Denmark)

**17:30 - 17:45:**

[Understanding Forced Climate Signals in the 30-year Satellite Altimeter Sea Level Record](#)

R. Steven Nerem (University of Colorado, United States), John Fasullo (NCAR, USA), Claire Monteleoni (University of Colorado, USA), Saumya Sinha (University of Colorado, USA)

**17:45 - 18:00:**

[Influence of Deep-Ocean Warming on Coastal Sea-Level Trends in the Gulf of Mexico](#)

Jacob Steinberg (Woods Hole Oceanographic Institution, United States), Christopher Piecuch (WHOI, United States), Benjamin Hamlington (NASA JPL, United States), Sloan Coats (University of Hawaii Manoa, United States), Phillip Thompson (University of Hawaii Manoa, United States)

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

## **Instrument Processing: Measurement and Retracking**

**Session chairs:** Francois Boy, Phil Callahan, Jean-Damien Desjonquieres, Alejandro Egado, Marco Fornari, Cristina Martin-Puig, Walter H.F. Smith  
(Tue, Nov 01 2022, 09:00 - 12:30)

### **Sala Grande**

**09:05 - 09:20:**

[A detailed analysis of S3 and S6 fully-focused SAR waveforms: Enabling SAMOSA-based retracking](#)

Frithjof Ehlers (Geoscience and Remote Sensing, Delft University of Technology, Netherlands), Florian Schlembach (Deutsches Geodätisches Forschungsinstitut, Technische Universität München (DGFI-TUM), Germany), Marcel Kleinherenbrink (Astrodynamics and Space Missions, Delft University of Technology, Netherlands), Cornelis Slobbe (Geoscience and Remote Sensing, Delft University of Technology, Netherlands)

**09:20 - 09:35:**

[Inter-pulse complex coherency of Sentinel-6, Sentinel-3, and CryoSat2 radar altimeter pulse echoes backscattered from the ocean surface](#)

Walter Smith (NOAA Lab for Satellite Altimetry, United States)

**09:35 - 09:50:**

[FFSAR replica removal algorithm for closed-burst data](#)

Samira Amraoui (CLS, France), Thomas Moreau (CLS, France), Maxime Vayre (CLS, France), François Boy (CNES, France), Sophie Le Gac (CNES, France), Nicolas Picot (CNES, France), Franck Borde (ESA, Netherlands)

**09:50 - 10:05:**

[2D SAR Altimetry Retracking – Lessons Learned](#)

Christopher Buchhaupt (CISESS/UMD, United States), Alejandro Egado (GST/NOAA, United States), Luciana Fenoglio (University of Bonn, Germany), Walter Smith (NOAA, United States)

**10:05 - 10:20:**

[Improving inland water altimetry retracking by incorporating spatial dependency of waveforms](#)

Omid Elmi (Institute of Geodesy, University of Stuttgart, Germany), Mohammad J. Tourian (Institute of Geodesy, University of Stuttgart, Germany)

**10:20 - 10:35:**

[Swell detection from fully-focused SAR altimetry data](#)

Ourania Altiparmaki (TU Delft, Netherlands)

**10:30 - 11:00: Coffee Break**

**10:55 - 11:10:**

[A Significant Wave Height Correction to Account for Vertical Wave Motion Effects in SAR Altimeter Measurements](#)

Alejandro Egado (NOAA, United States), Christopher Buchhaupt (NOAA / ESSIC, UMD, USA), François Boy (CNES, France), Claire Maraldi (CNES, France), Cadier Emeline (CLS, France), Dinardo Salvatore (CLS, France), Eric Leuliette (NOAA, USA), Thomas Moreau (CLS, France)

**11:10 - 11:25:**

[On the Benefits of Stack-Masking in Delay-Doppler Altimetry over Non-Homogeneous Surfaces](#)

Pierre Fabry (ALONG-TRACK, France), Jérôme Benveniste (ESA-ESRIN, Italy), Marco Restano (ESA-ESRIN, Italy), Américo Ambrozio (ESA-ESRIN, Italy)



**11:25 - 11:40:**

[Fast-Adaptive: a new, optimal, unbiased, and computationally efficient retracking solution for the analysis of Conventional Altimetry data](#)

Anna Mangilli (CLS, France), Salvatore Dinardo (CLS, France), Fanny Piras (CLS, France), Thomas Moreau (CLS, France), Claire Maraldi (CNES, France), Jean-Alexis Daguze (CLS, France), Pierre Thibaut (CLS, France), François Boy (CNES, France), Picot Nicolas (CNES, France)

**11:40 - 11:55:**

[EMD filtering applied to LRM 20 Hz sea level anomaly observations](#)

Francesco Nencioli (CLS, France), Marie-Isabelle Pujol (CLS, France), Nicolas Picot (CNES, France), Gerald Dibarboure (CNES, France), Yves Quilfen (IFREMER, France)

**11:55 - 12:10:**

[Beyond 20 Hz: Deriving the necessity of increased posting rates from first principles](#)

Frithjof Ehlers (Delft University of Technology, Netherlands), Cornelis Slobbe (Geoscience and Remote Sensing, Delft University of Technology, Netherlands)

**12:10 - 12:25:**

[Towards a homogeneous reprocessing of historical missions: excellent performances of the Adaptive retracker applied to Jason-1 and ENVISAT](#)

Fanny Piras (CLS, France), H el ene Roinard (CLS, France), Annabelle Ollivier (CLS, France), Anna Mangilli (CLS, France), Claire Maraldi (CNES, France), Fran ois Bignalet-Cazalet (CNES, France), Pierre F em enias (ESA, Italy), Fran ois Boy (CNES, France)

## Precision Orbit Determination

**Session chairs:** Sean Bruinsma, Alexandre Couhert, Frank Lemoine  
(Tue, Nov 01 2022, 09:00 - 12:30)

### Sala Pasinetti

**09:00 - 09:15:**

[CNES POE-F precise orbit performances for the Jason-3 and Sentinel-6 MF missions](#)

Alexandre Couhert (CNES, France), John Moyard (CNES, France), Flavien Mercier (CNES, France), Sabine Houry (CNES, France), Timoth e Braz (CS-SI, France), Vincent Debout (CS-SI, France), Georgia Katsigianni (CLS, France), El onore Saquet (CLS, France)

**09:15 - 09:30:**

[GSFC Std2006: An updated set of altimeter satellite orbits for TOPEX, the Jason satellites and Sentinel-6A](#)

Frank Lemoine (NASA GSFC, France), Nikita Zelensky (University of Maryland, U.S.A.), Brian Beckley (KBR, U.S.A.), Xu Yang (KBR, U.S.A.), Douglas Chinn (KBR, U.S.A.)

**09:30 - 09:45:**

[GPS-based Precise Orbit Determination of the Sentinel-6 MF and Jason-3 Missions](#)

Shailen Desai (Jet Propulsion Laboratory, United States), Alex Conrad (University of Colorado, United States), Bruce Haines (Jet Propulsion Laboratory, United States)

**09:45 - 10:00:**

[Sentinel-6 Michael Freilich - Precise Orbit Determination based on Galileo and GPS observations](#)

Francesco Gini (ESA/ESOC, Germany), Florian Reckeweg (ESA/ESOC, Germany), Michiel Otten (ESA/ESOC, Germany), Tim Springer (ESA/ESOC, Germany), Volker Mayer (ESA/ESOC, Germany), Erik Schoenemann (ESA/ESOC, Germany), Rene' Zandbergen (ESA/ESOC, Germany), Werner Enderle (ESA/ESOC, Germany)

**10:00 - 10:15:**

[Sentinel-6 orbit determination at the Copernicus POD Service](#)

Heike Peter (PosiTim UG, Germany), Jaime Fern andez (GMV AD., Spain), Marc Fern andez (GMV AD., Spain), Pierre F em enias (ESA/ESRIN, Italy), Yago Andres (EUMETSAT, Germany), Carolina Nogueira Loddio (EUMETSAT, Germany)

**10:15 - 10:30:**

[Cross-calibration of the TRIG and PODRIX GNSS receivers onboard Sentinel-6A](#)

Oliver Montenbruck (DLR/GSOC, Germany), Martin Wermuth (DLR/GSOC, Germany), Stefan Hackel (DLR/GSOC, Germany)

**10:30 - 11:00: Coffee Break**

**11:00 - 11:15:**

[Assessment of GPS Transmitter Antenna Calibration Maps on Precise Orbit Determination of the Sentinel-6 MF Mission](#)

Alex Conrad (University of Colorado Boulder, United States), Penina Axelrad (University of Colorado Boulder, United States), Shailen Desai (Jet Propulsion Laboratory, California Institute of Technology, United States), Bruce Haines (Jet Propulsion Laboratory, California Institute of Technology, United States)

**11:15 - 11:30:**

[Satellite altimetry POD using GPS satellite quaternions from IGS CNES/CLS ORBEX files](#)

Georgia Katsigianni (CLS, France), Alexandre Couhert (CNES, France), John Moyard (CNES, France)

**11:30 - 11:45:**

[Precise Orbit Determination of DORIS satellites by CNES/CLS IDS Analysis Center in the frame of our contribution to the ITRF2020](#)

Hugues Capdeville (CLS, France), Jean-Michel Lemoine (CNES, France), Adrien Mezerette (CLS, France)

**11:45 - 12:00:**

[Systematic errors in Satellite Laser Ranging validations of microwave-based orbit solutions](#)

Daniel Arnold (Astronomical Institute of the University of Bern, Bern, Switzerland), Alexandre Couhert (Centre National d'Etudes Spatiales, Toulouse, France), Oliver Montenbruck (German Space Operations Center, Deutsches Zentrum für Luft- und Raumfahrt, Wessling, Germany), Cyril Kobel (Astronomical Institute of University of Bern, Bern, Switzerland), Eléonore Saquet (Centre National d'Etudes Spatiales, Toulouse & Collecte Localisation Satellites, Toulouse, France), Heike Peter (PosiTim UG, Seeheim-Jugenheim, Germany), Flavien Mercier (Centre National d'Etudes Spatiales, Toulouse, France), Adrian Jäggi (Astronomical Institute of the University of Bern, Bern, Switzerland)

**12:00 - 12:15:**

[On the accuracy of contemporary orbits of altimetry satellites in the radial direction](#)

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

**12:15 - 12:30:**

[Improved time-variable gravity modelling using monthly COST-G models for precise orbit determination of low Earth orbiting satellites](#)

Adrian Jäggi (University of Bern, Switzerland), Heike Peter (PosiTim UG, Seeheim-Jugenheim, Germany), Ulrich Meyer (University of Bern, Switzerland)

**12:30 - 14:00: Lunch**

# Instrument Processing: Propagation, Wind Speed and Sea State Bias

**Session chairs:** Shannon Brown, Estelle Obligis  
(Tue, Nov 01 2022, 14:00 - 15:45)

## Sala Grande

**14:00 - 14:15:**

[AMR-C and HRMR Performance after 1 Year](#)

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

**14:15 - 14:30:**

[Benefits of high-frequency observations for the retrieval of the wet tropospheric correction over open ocean: first results based on HRMR Sentinel-6 measurements.](#)

Bruno Picard (Fluctus SAS, France)

**14:30 - 14:45:**

[Refined S-6 sea state bias correction models and a multi-frequency EM bias assessment using C-, Ku-, and Ka-band data](#)

Doug Vandemark (Univ. of New Hampshire, United States), Hui Feng (Univ. of New Hampshire, US), Ngan Tran (CLS, France), Brian Beckley (NASA-GSFC, US)

**14:45 - 15:00:**

[Monitoring Sigma0 in the Sentinel era](#)

Graham Quartly (Plymouth Marine Laboratory, United Kingdom)

**15:00 - 15:15:**

[Enhanced GPD+ wet tropospheric corrections for the Copernicus Sentinel-3 missions](#)

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

**15:15 - 15:30:**

[Performances and benefits of a 1D-variational approach applied to the wet tropospheric correction for the Sentinel 3A and 3B topography missions.](#)

Bruno Picard (Fluctus SAS, France), Ralf Bennartz (Vanderbilt University, US), Frank Fell (Informus, Deutschland), Estelle Obligis (Eumetsat, Deutschland)

**15:30 - 15:45:**

[Towards the Retrieval of Atmospheric Information from Altimeter Range Measurements](#)

Noureddine Semane (ECMWF, United Kingdom), Sean Healy (ECMWF, United Kingdom), Saleh Abdalla (ECMWF, United Kingdom), Philip Browne (ECMWF, United Kingdom)

**15:45 - 16:15: Coffee Break**

## Outreach, Education and Altimetric Data Services

**Session chairs:** Jack McNelis, Vinca Rosmorduc, Margaret Srinivasan  
(Tue, Nov 01 2022, 14:00 - 15:45)

### Sala Pasinetti

**14:00 - 14:25:**

[Argonautica, ocean and satellites from kindergarten to engineering school](#)

Estelle Raynal (CNES, France), Danielle De Staerke (CNES, France), Vinca Rosmorduc (CLS, France)

**14:25 - 14:40:**

[Citizen science in FloatEco and GO-SEA projects](#)

Nikolai Maximenko (IPRC/SOEST, University of Hawaii, United States), Lauren Biermann (Plymouth Marine Laboratory, United Kingdom), James Carlton (Williams College, USA), Luca Centurioni (LDL/SIO, University of California San Diego, USA), Mary Crowley (Ocean Voyages Institute, USA), Jan Hafner (IPRC/SOEST, University of Hawaii, United States), Linsey Haram (Smithsonian Environmental Research Center, USA), Rebecca Helm (University of North Carolina Asheville, USA), Verena Hormann (LDL/SIO, University of California San Diego, USA), Cathryn Murray (Fisheries and Oceans Canada, Canada), Gregory Ruiz (Smithsonian Environmental Research Center, United States), Andrey Shcherbina (APL, University of Washington, USA), Justin Stopa (University of Hawaii, United States), Davida Streett (NOAA NESDIS, USA), Cynthia Wright (Fisheries and Oceans Canada, Canada), Chela Zabin (Smithsonian Environmental Research Center, USA)

**14:40 - 14:55:**

[Altimetry training resources available under EUMETSAT Copernicus Marine Training Service](#)

Vinca Rosmorduc (CLS, France), Ben Loveday (Innoflair UG, Germany), Aida Alvera Azcárate (GHER, University of Liege, Belgium), Vittorio Brando (CNR ISMAR, Italy), Ana Ruescas (Brockmann Consult GmbH / Universitat de València, Germany / Spain), Hayley Evers-King (Eumetsat, Germany), Christine Träger-Chatterjee (Eumetsat, Germany)

**14:55 - 15:10:**

[CEOS Ocean Variable Enabling Research & Applications for GEO \(COVERAGE\): A Platform to Simplify and Expand the Accessibility and Synergistic Use of Inter-agency Satellite and in-situ Oceanographic Data](#)

Vardis Tsonetos (NASA/JPL, United States), Jorge Vazquez (NASA/JPL, USA), Thomas Huang (NASA/JPL, USA), Mike Chin (NASA/JPL, USA), Joe Roberts (NASA/JPL, USA), Joseph Jacob (NASA/JPL, USA), Flynn Platt (NASA/JPL, USA)

**15:10 - 15:25:**

[Interactive website to visualize and study mesoscale eddies](#)

Jeffrey Early (NorthWest Research Associates, United States), Brian Curtis (Private database consultant, USA), Jonathan Lilly (Planetary Science Institute, USA), Peter Gaube (University of Washington, USA)

**15:25 - 15:45:**

[Outreach and data services showcases](#)

**15:45 - 16:15: Coffee Break**

## Special Session: Beyond the history of European–US cooperation on altimetry

**Session chairs:** Pascal Bonnefond, Craig Donlon, Eric Leuliette, Remko Scharroo, Josh Willis  
(Tue, Nov 01 2022, 16:15 - 17:15)

### Sala Grande

#### 16:15 - 17:15:

In this year where we celebrate the 30th anniversary of the launch of TOPEX/Poseidon, we have invited the forefathers of the missions, working in NASA and CNES at that time to join us in Venice and to tell us the stories behind the French / US cooperation which led to the success of T/P and its followers the Jason-series.

## Poster session part 1

**Session chairs:** all  
(Tue, Nov 01 2022, 17:15 - 18:15)  
See poster list from [page 28](#)

#### 18:15 - 19:30: Icebreaker

**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 (Wed, Nov 02 2022, 09:00 - 12:30)

### **Sala Grande**

**09:00 - 09:15:**

[Absolute calibration results from Bass Strait, Corsica, and Harvest facilities](#)

Pascal Bonnefond (Observatoire de Paris - SYRTE, France), Bruce Haines (Jet Propulsion Laboratory, United States), Benoit Legresy (Climate Science Centre, Oceans and Atmosphere, Commonwealth Scientific and Industrial Research Organisation, Australia), Christopher Watson (School of Technology, Environments and Design, University of Tasmania, Australia)

**09:15 - 09:30:**

[Performance Characteristics of the CDN1 Transponder Data and Current Results of the ESA Permanent Facility for Altimetry Calibration in West Crete.](#)

Stelios Mertikas (Technical University of Crete, Greece), Craig Donlon (European Space Agency/ESTEC, Netherlands), Dimistrios Piretzidis (Space Geomatica, Greece), Constantine Kokolakis (Space Geomatica, Greece), Robert Cullen (European Space Agency/ESTEC, Netherlands), Pierre Femenias (European Space Agency/ESRIN, Italy), Marco Fornari (European Space Agency, Netherlands), Francois Boy (CNES, France), Berthyl Duesmann (European Space Agency/ESTEC, Netherlands), Mingsen Lin (National Satellite Ocean Application Service, China), Yongjun Jia (National Satellite Ocean Application Service, China), Lei Yang (First Institute of Oceanography, China), Xenofon Frantzis (Technical University of Crete, Greece), Achilles Tripolitsiotis (Space Geomatica, Greece)

**09:30 - 09:45:**

[Potential of the Noumea lagoon as a multi-mission cal/val site for past and future altimetry missions.](#)

Clémence Chupin (LIENSs, UMR CNRS - La Rochelle Université, France), Valérie Ballu (LIENSs, UMR CNRS - La Rochelle Université, France), Laurent Testut (LIENSs, UMR CNRS - La Rochelle Université, France), Yann-Treden Tranchant (LIENSs, UMR CNRS - La Rochelle Université, France)

**09:45 - 10:00:**

[Radar Altimeter in-situ monitoring at the Lake Issyk Kul observatory \(Kyrgyzstan\)](#)

Tilo Schöne (GeoForschungsZentrum Potsdam, Germany), Julia Illiger (GeoForschungsZentrum Potsdam, Germany), Cornelia Zech (GeoForschungsZentrum Potsdam, Germany), Saskia Esselborn (GeoForschungsZentrum Potsdam, Germany), Veit Helm (Helmholtz Centre for Polar and Marine Research (AWI), Germany), Alexander Zubovich (Central-Asian Institute for Applied Geosciences, Kyrgyzstan)

**10:00 - 10:15:**

[Possible datum errors at tide gauges detected by satellite altimetry: some case studies](#)

Richard Ray (NASA/GSFC, United States), Matthew Widlansky (University of Hawaii, USA), Philip Thompson (University of Hawaii, USA), Ayesha Genz (NOAA, USA)

**10:15 - 10:30:**

[Independent and intermission validations of Sentinel-6 Michael Freilich](#)

Eric Leuliette (NOAA, United States), Amanda Plagge (NOAA, United States), Lauren Vocke (University of North Dakota, USA)

**10:30 - 11:00: Coffee Break**

**11:00 - 11:15:**

[Sentinel-6 PDAP products assessment over ocean](#)

François Bignalet-Cazalet (CNES, France), Claire Maraldi (CNES, France), Emeline Cadier (CLS, France), François Boy (CNES, France), Adrien Guerou (CLS, France), Bastien Courcol (CLS, France), Thomas Moreau (CLS, France), Salvatore Dinardo (CLS, France), Cristina Martin-Puig (EUMETSAT, Germany), Marco Meloni (EUMETSAT, Germany), Remko Scharroo (EUMETSAT, Germany), Nicolas PICOT (CNES, France), Gilles Tavernier (CNES, France)

**11:15 - 11:30:**

[Jason-3 GDR-F mission performances over ocean](#)

Hélène Roinard (CLS, France), François Bignalet-Cazalet (CNES, France), Nicolas Picot (CNES, France), Fanny Piras (CLS, France), Jerome Coquelin (ALTEN for CLS, France)

**11:30 - 11:45:**

[Sentinel-3 status and performance over ocean](#)

Francesco Nencioli (CLS, France), Emeline Cadier (CLS, France), Ghita Jettou (CLS, France), Clement Weber (CLS, France), Matthias Raynal (CNES, France), Pierre Femenias (ESA, Italy)

**11:45 - 12:00:**

[Feed-back and contribution after several years of Haiyang-2B data availability](#)

Alexandre Philip (CLS, France), Guillaume Taburet (CLS, France), Yannice Faugère (CLS, France), Nadège Quérueu (CNES, France), François Bignalet-Cazalet (CNES, France), Gérald Dibarbouré (CNES, France)

**12:00 - 12:15:**

[Calibration and Validation of TOPEX GDR-F Products](#)

Jean-Damien Desjonqueres (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA, United States), Francois Bignalet-Cazalet (Centre National d'Etudes Spatiales, Toulouse, France, France), Philip Callahan (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA, USA), Shailen Desai (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA, USA), Linda Forster (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA, USA), Adrien Guerou (Collecte Localisation Satellites, Toulouse, France, France), Bruce Haines (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA, USA), Nicolas Picot (Centre National d'Etudes Spatiales, Toulouse, France, France), Helene Roinard (Collecte Localisation Satellites, Toulouse, France, France), Matthieu Talpe (Jet Propulsion Laboratory, California Institute of Technology, Now at Spire, USA), Josh Willis (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA, USA)

## Application development for Operations

**Session chairs:** Deirdre Byrne, Gerald Dibarboure, Gregg Jacobs, Carolina Nogueira Loddó  
(Wed, Nov 02 2022, 09:00 - 10:30)

### Sala Pasinetti

**09:00 - 09:15:**

[Estimating upper ocean heat content in the North Atlantic Ocean with the NOAA next-generation enterprise ocean heat content algorithm](#)

Deirdre Byrne (NOAA, United States), Paige Lavin (NOAA, United States)

**09:15 - 09:30:**

[The 2022 Honga Tonga Tsunami monitored by satellite altimetry and SAR](#)

Yannice Faugere (CLS Space Oceanography Division, France), Romain Husson (CLS, France), Gerald Dibarboure (CNES, France)

**09:30 - 09:45:**

[Dynamics of the North Pacific “garbage patch” observed with a suite of Lagrangian instruments for ecological applications](#)

Nikolai Maximenko (IPRC/SOEST, University of Hawaii, United States), Jan Hafner (IPRC/SOEST, University of Hawaii, United States), Mary Crowley (Ocean Voyages Institute, USA), Luca Centurioni (LDL/SIO, University of California San Diego, United States), Andrey Shcherbina (APL, University of Washington, USA), James Carlton (Williams College, USA), Linsey Haram (Smithsonian Environmental Research Center, USA), Verena Hormann (LDL/SIO, University of California San Diego, United States), Cathryn Murray (Fisheries and Oceans Canada, Canada), Gregory Ruiz (Smithsonian Environmental Research Center, United States), Cynthia Wright (Fisheries and Oceans Canada, Canada), Chela Zabin (Smithsonian Environmental Research Center, USA)

**09:45 - 10:00:**

[5Hz resolution altimetry wave products for better coastal approach](#)

Annabelle Ollivier (CLS, France), Adrien Nigou (Celad for CLS, France), Isabelle Pujol (cls, France), Gerald Dibarboure (cnes, France), Alice Dalphinnet (MeteoFrance, France), Francois Soulat (cls, France), Alejandro Bohe (cnes, France), Fanny Piras (cls, France), Ngan Tran (cls, France), Fabrice Arduin (LOPS, France)

**10:00 - 10:15:**

[Towards a global Stokes drift product from SWIM/CFOSAT](#)

Charles Peureux (CLS, France), Annabelle Ollivier (CLS, France), H el ene Etienne (CLS, France), Sandrine Mulet (CLS, France), C edric Tourain (CNES, France), Lotfi Aouf (M et eo France, France)

**10:15 - 10:30:**

[Thirty years of iceberg and associated fresh water flux from altimeter](#)

Jean Tournadre (IFREMER, France), Diane Segalla (Laboratoire des Sciences du Climat et de l'Environnement, France), Fanny Girard-Arduin (Ifremer LOPS, France)

**10:30 - 11:00: Coffee Break**



## Coastal Altimetry

**Session chairs:** Florence Birol, Mathilde Cancet, Marcello Passaro, Ted Strub  
(Wed, Nov 02 2022, 11:00 - 12:30)

### Sala Pasinetti

**11:00 - 11:15:**

[A new CryoSat-2 regional product for ocean applications: the Cryo-TEMPO Coastal Ocean Thematic Data Product](#)

Francesco Nencioli (CLS, France), Salvatore Dinardo (CLS, France), Thomas Zilio (CLS, France), Daguze Jean-Alexis (CLS, France), Antonio Sanchez-Roman (IMEDEA, Spain), Ananda Pascual (IMEDEA, Spain), Sylvie Labroue (CLS, France), Jerome Bouffard (ESA, Italy)

**11:15 - 11:30:**

[Analysis of Fully Focused and unfocused SAR data in the \[0 - 5\] km of the coastal strip](#)

Ana Aldarias (University of Cadiz, Spain), Marcello Passaro (Deutsches Geodätisches Forschungsinstitut. Technical University of Munich, Germany), Jesús Gómez-Enri (Applied Physics Department. Faculty of Marine and Environmental Sciences, University of Cádiz, Spain), Roberto Mulero-Martínez (Applied Physics Department. Faculty of Marine and Environmental Sciences, University of Cádiz, Spain), Irene Laiz (Applied Physics Department. Faculty of Marine and Environmental Sciences, University of Cádiz, Spain), Frithjof Ehlers (Faculty of Civil Engineering and Geosciences. Technical University of Delft, Netherland), Florian Schlembach (Deutsches Geodätisches Forschungsinstitut. Technical University of Munich, Germany), Michele Scagliola (Aresys (Advanced Remote Sensing Systems). Spin-off of Polytechnic University of Milan, Italy)

**11:30 - 11:45:**

[Round Robin Assessment of altimetry algorithms for coastal sea surface height data](#)

Florence Birol (CTOH/LEGOS, France), François Bignalet-Cazalet (CNES, France), Mathilde Cancet (Noveltis, France), Jean-Alexis Daguze (CLS, France), Yannice Faugère (CLS, France), Wassim Fkaier (CTOH/LEGOS, France), Ergane Fouchet (Noveltis, France), Fabien Léger (CTOH/LEGOS, France), Claire Maraldi (CNES, France), Fernando Niño (CTOH/LEGOS, France), Marie-Isabelle Pujol (CLS, France), Pierre Thibaut (CLS, France)

**11:45 - 12:00:**

[Coastal Case Study for Leveraging the Potential of Sentinel-6 MF Fully-focused SAR Altimetry for Retracking Significant Wave Height](#)

Florian Schlembach (Deutsches Geodätisches Forschungsinstitut, Technical University of Munich (DGFI-TUM), Arcisstraße 21, Munich, 80333, Germany, Germany), Frithjof Ehlers (Geoscience and Remote Sensing, Delft University of Technology, Netherlands, Netherlands), Marcel Kleinherenbrink (Geoscience and Remote Sensing, Delft University of Technology, Netherlands, Netherlands), Marcello Passaro (Deutsches Geodätisches Forschungsinstitut, Technical University of Munich (DGFI-TUM), Arcisstraße 21, Munich, 80333, Germany, Germany), Florian Seitz (Deutsches Geodätisches Forschungsinstitut, Technical University of Munich (DGFI-TUM), Arcisstraße 21, Munich, 80333, Germany, Germany), Cornelis Slobbe (Geoscience and Remote Sensing, Delft University of Technology, Netherlands, Netherlands)

**12:00 - 12:15:**

[Coastal circulation in the Gulf of Cádiz using multi-mission altimetry data](#)

Roberto Mulero-Martinez (Department of Applied Physics. University of Cadiz., Spain), Jesús Gómez-Enri (Department of Applied Physics. University of Cadiz., Spain), Rafael Mañanes (Department of Applied Physics. University of Cadiz., Spain), Miguel Bruno (Department of Applied Physics. University of Cadiz., Spain)

**12:15 - 12:30:**

[Using satellite altimetry to obtain subsurface ocean temperatures on the Greenland Shelf](#)

Carine van der Boog (Jet Propulsion Laboratory, United States), Ian Fenty (Jet Propulsion Laboratory, United States)

**12:30 - 14:00: Lunch**

## Science II: Large Scale Ocean Circulation Variability and Change

**Session chairs:** Weiqing Han, Thierry Penduff, LuAnne Thompson  
(Wed, Nov 02 2022, 14:00 - 15:45)

### Sala Grande

**14:00 - 14:15:**

[Benefits of multi-altimeter combination for Arctic sea surface height retrievals](#)

Pierre Prandi (CLS, France), Pierre Veillard (CLS, France), Yannice Faugère (CLS, France),  
Gérald Dibarboure (CNES, France)

**14:15 - 14:30:**

[Causal Mechanism of Sea Level Change in the Beaufort Sea](#)

Ichiro Fukumori (Jet Propulsion Laboratory, United States), Ou Wang (Jet Propulsion  
Laboratory, United States), Ian Fenty (Jet Propulsion Laboratory, United States)

**14:30 - 14:45:**

[Altimetric Studies of the Oceanic Pathways in the Northeast Pacific Ocean](#)

Ted Strub (Oregon State University, United States), Melanie Fewings (Oregon State University,  
United States), Ricardo Matano (Oregon State University, United States), Corinne James (Oregon State  
University, United States), Vincent Combes (Oregon State University, United States)

**14:45 - 15:00:**

[Decadal to Multi-Decadal Circulation Variability in the Western Tropical Pacific Ocean](#)

Bo Qiu (University of Hawaii, United States), Shuiming Chen (University of Hawaii, United  
States)

**15:00 - 15:15:**

[Topographically Trapped Waves around South America with periods between 40 and 130 days in a global ocean reanalysis.](#)

Léa Poli (LOCEAN, France), Camila Artana (ICM-CSIC, Spain), Christine Provost (LOCEAN,  
France)

**15:15 - 15:30:**

[Toward a probabilistic assessment of the global ocean response to fully-varying river runoffs.](#)

Thierry Penduff (CNRS - IGE, France), Stephanie Leroux (DATLAS, France), William Llovel  
(CNRS - LOPS, France), Jean-Marc Molines (CNRS - IGE, France), Jerome Vialard (IRD - LOCEAN, France),  
Matthieu Lengaigne (IRD - MARBEC, France), Soumaia Tajouri (LOPS, France), Florian Sevellec (CNRS -  
LOPS, France), Julien Jouanno (IRD - LEGOS, France), Fabrice Papa (IRD - LEGOS, France), Clement de  
Boyer Montegut (IFREMER - LOPS, France)

**15:45 - 16:15: Coffee Break**

# Tides, internal tides and high-frequency processes

**Session chairs:** Loren Carrere, Florent Lyard, Richard Ray  
(Wed, Nov 02 2022, 14:00 - 15:45)

## Sala Pasinetti

**14:00 - 14:15:**

[POLAR OCEAN TIDES REVISITED](#)

Ole Baltazar Andersen (Professor, Denmark), Stine Kildegaard Rose (DTU Space, Denmark)

**14:15 - 14:30:**

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

Mathilde Cancet (NOVELTIS, France), Ole Andersen (DTU Space, Denmark), Michel Tsamados (University College London, United Kingdom), Geir Moholdt (Norwegian Polar Institute, Norway), Florent Lyard (LEGOS/OMP/CNRS, France), Marco Restano (SERCO/ESA, Italy), Jérôme Benveniste (ESA/ESRIN, Italy)

**14:30 - 14:45:**

[Insights from the global EOT20 ocean tide model](#)

Michael Hart-Davis (DGFI-TUM, Germany), Denise Dettmering (DGFI-TUM, Germany), Christian Schwatke (DGFI-TUM, Germany), Marcello Passaro (DGFI-TUM, Germany), Florian Seitz (DGFI-TUM, Germany)

**14:45 - 15:00:**

[Status of GOT5 and associated prediction software](#)

Richard Ray (NASA/GSFC, United States)

**15:00 - 15:15:**

[A new barotropic tide model for global ocean: FES2022](#)

Loren Carrere (CLS, France), Florent Lyard (LEGOS, France), Mathilde Cancet (NOVELTIS, France), Damien Allain (LEGOS, France), Mei-Ling Dabat (CLS, France), Ergane Fouchet (NOVELTIS, France), Etienne Sahuc (NOVELTIS, France), Yannice Faugere (CLS, France), Gerald Dibarboure (CNES, France), Nicolas Picot (CNES, France)

**15:15 - 15:30:**

[Toward a community global 1/36° configuration based on NEMO](#)

Perrine Abjean (Mercator Ocean International, France), Clément Bricaud (Mercator Ocean International, France), Jérôme Chanut (Mercator Ocean International, France), Romain Bourdalle-Badie (Mercator Ocean International, France), Gilles Garric (Mercator Ocean International, France), Théo Brivoal (Mercator Ocean International, France)

**15:30 - 15:45:**

[Energetics of high frequency Internal Tides in Global HYCOM](#)

Miguel Solano (The University of Southern Mississippi, United States), Maarten Buijsman (The University at Southern Mississippi, United States), Brian Arbic (University of Michigan, United States), Christopher Jackson (NOAA, United States), Jorge Magalhaes (University of Porto, Portugal), Jose daSilva (University of Porto, Portugal)

**15:45 - 16:15: Coffee Break**

## Science III: Mesoscale and sub-mesoscale oceanography

**Session chairs:** Lee-Lueng Fu, Rosemary Morrow, Heather Roman-Stork, Clément Ubelmann, Jinbo Wang  
(Wed, Nov 02 2022, 16:15 - 18:00)

### Sala Grande

**16:15 - 16:26:**

[Observation-based estimates of ocean vertical covariances in the model unconstrained band](#)

Joseph D'Addezio (Naval Research Laboratory, United States), Gregg Jacobs (Naval Research Laboratory, United States)

**16:26 - 16:37:**

[Blending AIS data and altimetric measurements to estimate sea surface currents in the Gulf of](#)

[Mexico](#)

Clément Le Goff (eodyn, France), Brahim Boussidy (eodyn, France), Solene Jousset (CLS, France), Sandrine Mulet (CLS, France), Gerald Dibarbouré (cnes, France)

**16:37 - 16:48:**

[Joint estimation of balanced motions and internal tides from future wide-swath altimetry](#)

Florian Le Guillou (IGE, France), Noé Lahaye (Inria, France), Clément Ubelmann (Ocean Next, France), Sammy Metref (IGE, France), Emmanuel Cosme (IGE, France), Aurélien Ponte (Ifremer, France), Julien Le Sommer (IGE, France), Eric Blayo (LJK, France), Arthur Vidard (LJK, France)

**16:48 - 16:59:**

[A New Global Mesoscale Eddy Trajectory Atlas Derived from Altimetry : Presentation and Future Evolutions](#)

Cori Pegliasco (CLS, France), Antoine Delepouille (CLS, France), Clément Busché (CLS, France), Rosemary Morrow (LEGOS, France), Yannice Faugère (CLS, France), Gerald Dibarbouré (CNES, France)

**16:59 - 17:10:**

[Development of Multiparameter Mesoscale Eddy Products for Operational Use](#)

Heather Roman-Stork (Global Science & Technology, Inc./National Oceanic and Atmospheric Administration, United States), Eric Leuliette (National Oceanic and Atmospheric Administration, United States), Deirdre Byrne (National Oceanic and Atmospheric Administration, United States)

**17:10 - 17:21:**

[Inter and intra-annual variability of the North Brazil Current rings from altimetry detected by TOEddies and comparison with in-situ measurements from the EUREC4A-OA experiment](#)

Corentin Subirade (LMD, Laboratoire de Météorologie Dynamique, UMR 8539 CNRS, École normale supérieure, Paris, France, France), Pierre L'Hégaret (LMD, Laboratoire de Météorologie Dynamique, UMR 8539 CNRS, École normale supérieure, Paris, France, France), Sabrina Speich (LMD, Laboratoire de Météorologie Dynamique, UMR 8539 CNRS, École normale supérieure, Paris, France, France), Rémi Laxenaire (LMD and LACy (Laboratoire de Météorologie Dynamique, UMR 8539 CNRS, École normale supérieure, Paris, France / Laboratoire de L'Atmosphère et des Cyclones, UMR 8105 CNRS, Université de La Réunion, Météo-France, Saint-Denis, France), France)

**17:21 - 17:32:**

[A Broadband View of the Sea Surface Height Wavenumber Spectrum](#)

Bia Villas Bôas (Caltech/Colorado School of Mines, United States), Luc Lenain (Scripps Institution of Oceanography, United States), Bruce Cornuelle (Scripps Institution of Oceanography, United States), Sarah Gille (Scripps Institution of Oceanography, United States), Matthew Mazloff (Scripps Institution of Oceanography, United States)

**17:32 - 17:43:**

[Exploitation of high-resolution datasets for sea level studies in the Nordic Seas and Arctic Ocean](#)

Antonio Bonaduce (NERSC, Norway), Andrea Storto (CNR-ISMAR, Italy), Roshin P. Raj (NERSC, Norway), Laurent Bertino (NERSC, Norway), Jiping Xie (NERSC, Norway), Francois Counillon (NERSC, Norway)

**17:43 - 17:54:**

[Lagrangian analysis of fine-scale \(1–100 km\) ocean stirring: a preparatory study for the SWOT satellite mission](#)

Robin Rolland (LOCEAN, France), Francesco d'Ovidio (LOCEAN, France), Maxime Ballarotta (CLS, France)

**19:30 - 22:00: Conference dinner at [Ca' Vendramin Calergi](#) ([casino di Venezia, Cannaregio 2040, 30121 Venezia](#))**

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

## CFOSAT

**Session chairs:** Lotfi Aouf, Danièle Hauser, Joanna Staneva, Doug Vandemark  
(Thu, Nov 03 2022, 09:00 - 10:30)

### Sala Pasinetti

**09:00 - 09:15:**

[Small scale wave height variability and wave groups](#)

Marine De Carlo (Laboratoire d'Océanographie Physique et Spatiale (LOPS), University of Brest, CNRS, IUEM, Brest, France, France), Fabrice Ardhuin (Laboratoire d'Océanographie Physique et Spatiale (LOPS), University of Brest, CNRS, IUEM, Brest, France, France), Annabelle Ollivier (CLS Group (Collecte Localisation Satellites), France), Alejandro Bohe (Centre National d'Etudes Spatiales (CNES), France)

**09:15 - 09:30:**

[Waves Mean Square Slope estimation from CFOSAT/SWIM measurements](#)

Jean-François Poustis (CS Group, France), Baptiste Gombert (CLS, France), Danièle Hauser (LATMOS, France), Amanda Gounou (CS Group, France), Aouf Lotfi (METEO France, France), Cédric Tourain (CNES, France)

**09:30 - 09:45:**

[CFOSAT Sea level and current demonstration products](#)

Yannice Faugere (CLS Space Oceanography Division, France), Cecile Kocha (CLS, France), Malek Ghantous (CLS, France), Annabelle Ollivier (CLS, France), Isabelle Pujol (CLS, France), Gerald Dibarbouré (CNES, France)

**09:45 - 10:00:**

[Development of a new UAV-based LiDAR altimetry solution for in-situ wave spectrum estimation](#)

Jean-Christophe Poisson (vorteX.io, France), Valentin Fouqueau (vorteX.io, France), Guillaume Valladeau (vorteX.io, France), François Boy (CNES, France), Cédric Tourain (CNES, France), Céline Tison (CNES, France)

**10:00 - 10:15:**

[The cross-analysis of dual-instrument CFOSAT measurements: Towards multiparameter all-angle Ku-band Geophysical Modulation Function](#)

Alexey Mironov (eOdyn, France), Yves Quilfen (LOPS, IFREMER, France), Jean-Francois Piole (LOPS, IFREMER, France), Bertrand Chapron (LOPS, IFREMER, France)

**10:15 - 10:30: Keynote/invited**

[On the improvement of ocean/wave coupling with CFOSAT directional wave observations](#)

Lotfi Aouf (Division Marine et Océanographie Météo-France, France), Stéphane Law-Chune (MOI, France), Danièle Hauser (LATMOS/CNRS, France), Bertrand Chapron (IFREMER, France), Cedric Tourain (CNES, France)

10:30 - 11:00: Coffee Break

## Quantifying Errors and Uncertainties in Altimetry data

**Session chairs:** Michael Ablain, Joel Dorandeu, Remko Scharroo  
(Thu, Nov 03 2022, 09:00 - 10:30)

### Sala Grande

**09:00 - 09:15:**

[Leveraging Sentinel-6A interleaved mode to characterize High Resolution error budget over ocean](#)

Emeline Cadier (CLS, France), Salvatore Dinardo (CLS, France), Ngan Tran (CLS, France), Thomas Moreau (CLS, France), Claire Maraldi (CNES, France), François Boy (CNES, France), François Bignalet-Cazalet (CNES, France), Cristina Martin-Puig (EUMETSAT, Germany), Remko Scharroo (EUMETSAT, Germany)

**09:15 - 09:30:**

[Long-term stability of ionospheric GIM corrections in satellite altimetry data sets](#)

Denise Dettmering (Deutsches Geodätisches Forschungsinstitut (DGFI-TUM), Germany), Christian Schwatke (DGFI-TUM, Germany)

**09:30 - 09:45:**

[Uncertainties in SSB modeling and impact on MSL](#)

Sébastien Figerou (CLS, France), Ngan Tran (CLS, France), François Bignalet-Cazalet (CNES, France), Gerald Dibarboure (CNES, France), Craig Donlon (ESA, Netherlands)

**09:45 - 10:00:**

[Limiting factors of the altimetry observing system to the Global Mean Sea Level monitoring accuracy](#)

Adrien Guerou (CLS, France), Pierre Prandi (CLS, France), Benoit Meyssignac (LEGOS, France), Michaël Ablain (Magellium, France), Gérald Dibarboure (CNES, France), François Bignalet-Cazalet (CNES, France)

**10:00 - 10:15:**

[Sea level rise uncertainties: insights from a metrological approach](#)

Emma Woolliams (National Physical Laboratory, United Kingdom), Michaël Ablain (Magellium, France), Anne Barnoud (Magellium, France), Benoit Meyssignac (LEGOS, France), Adrien Guérou (CLS, France), Salvatore Dinardo (CLS, France), Ngan Tran (CLS, France), Sébastien Figerou (CLS, France), Hannah Cheales (NPL, United Kingdom), Sajedah Behnia (NPL, United Kingdom), Jonathan Mittaz (Reading University, United Kingdom), Craig Donlon (ESA-ESTEC, Netherlands), Robert Cullen (ESA-ESTEC, Netherlands)

**10:15 - 10:30:**

[Improving long term estimates of global mean sea level, global ocean heat content and Earth's energy imbalance using CDR water vapour data](#)

Anne Barnoud (Magellium, 1 rue Ariane, 31520 Ramonville Saint-Agne, France), Bruno Picard (Fluctus, Rabastens, France), Benoit Meyssignac (LEGOS, Université de Toulouse, CNES, CNRS, UPS, IRD, 31000 Toulouse, France), Florence Marti (Magellium, 1 rue Ariane, 31520 Ramonville Saint-Agne, France), Michaël Ablain (Magellium, 1 rue Ariane, 31520 Ramonville Saint-Agne, France), Rémy Roca (LEGOS, Université de Toulouse, CNES, CNRS, UPS, IRD, 31000 Toulouse, France)

**10:30 - 11:00: Coffee Break**

## Sentinel-6 Validation Team (S6VT) feedbacks

**Session chairs:** Pascal Bonnefond, Craig Donlon, Eric Leuliette, Remko Scharroo, Josh Willis  
(Thu, Nov 03 2022, 11:00 - 12:30)

### Sala Grande

**11:00 - 12:30:**

[Program for this session will be issued later](#)

Pascal Bonnefond (Observatoire de Paris - SYRTE, France)

# The Geoid, Mean Sea Surfaces and Mean Dynamic Topography

**Session chairs:** Ole B. Andersen, Yannice Faugere  
(Thu, Nov 03 2022, 11:00 - 12:30)

## Sala Pasinetti

**11:00 - 11:15:**

[Assessment of marine gravity models of the Mediterranean](#)

Sean Bruinsma (CNES, France), Franck Reinquin (CNES, France), Philippe Schaeffer (CLS, France)

**11:15 - 11:30:**

[New CNES CLS 2022 mean sea surface](#)

Philippe Schaeffer (CLS, France), Isabelle Pujol (CLS, France), Pierre Veillard (CLS, France), Yannice Faugere (CLS, France), Dagneaux Quentin (CELAD, France), Gerald Dibarboure (CNES, France), Nicolas Picot (CNES, France)

**11:30 - 11:45:**

[Rethinking the Modeling of the Mean Sea Surface in the Era of Climate Change](#)

Ole Baltazar Andersen (Professor, Denmark), Steve Nerem (Professor, USA)

**11:45 - 12:00:**

[The DTUUH22MDT combined mean dynamic topography model](#)

Per Knudsen (DTU Space, Denmark), Ole Andersen (DTU Space, Denmark), Nikolai Maximenko (University of Hawaii at Manoa, IPRC, Honolulu, USA), Jan Hafner (University of Hawaii at Manoa, IPRC, Honolulu, USA)

**12:00 - 12:15:**

[Combining coastal altimetry data with High Frequency radar, drifters and hydrological profiles data to estimate a Mean Dynamic topography on the Mid Atlantic Bight](#)

Solène Jousset (CLS, France), Sandrine Mulet (CLS, France), John Wilkin (Rutgers University, USA), Eric Greiner (CLS, France), Gérald Dibarboure (CNES, France), Nicolas Picot (CNES, France)

**12:30 - 14:00: Lunch**

## Poster session part 2

**Session chairs:** all

(Thu, Nov 03 2022, 14:00 - 15:45)

See poster list from [page 28](#)

**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  
(Thu, Nov 03 2022, 16:15 - 18:00)

### Sala Grande

**16:15 - 16:25:**

[Utilization of SWOT-simulator along with other nadir altimeter observations for estimation of river discharge over Narmada River](#)

Shard Chander (ISRO, India), Ritesh Agrawal (ISRO, India), Amit Dubey (ISRO, India), Aditya Chaudhary (ISRO, India), Anup K Mandal (ISRO, India), Neeraj Agarwal (ISRO, India), Adarsh M. S. (IIT Delhi, India), Taha Aawar (IIT Delhi, India), Dhanya C. T. (IIT Delhi, India), Rashmi Sharma (ISRO, India), R. P. Singh (ISRO, India)

**16:25 - 16:35:**

[Dual-band altimetry for polar science and oceanography: the Copernicus CRISTAL mission](#)

Paolo Cipollini (ESA-ESTEC, Netherlands), Günther March (ESA-ESTEC, Netherlands), Kristof Gantois (ESA-ESTEC, Netherlands), Franck Borde (ESA-ESTEC, Netherlands)

**16:35 - 16:45:**

[Towards FRM observations for hydrology and cryosphere Sentinel-3 Cal/Val activities: the St3TART project](#)

Elodie Da Silva (NOVELTIS, France), Nicolas Picot (CNES, France), Henriette Skourup (DTU Space, Denmark), Geir Moholdt (Norwegian Polar Institute, Norway), Jean-Christophe Poisson (VORTEX.io, France), Ole Andersen (DTU Space, Denmark), Laurent Arnaud (IGE, France), Jérémie Aublanc (CLS, France), Sajedeh Behnia (NPL, Germany), Etienne Berthier (LEGOS/OMP/CNRS, France), Mathis Bertin (NOVELTIS, France), Denis Blumstein (CNES, France), Pascal Bonnefond (SYRTE/OBSPM, France), François Boy (CNES, France), Stéphane Calmant (LEGOS/IRD, France), Michel Calzas (DT-INSU/CNRS, France), Stefania Camici (CNR-IRPI, Italy), Mathilde Cancet (NOVELTIS, France), Jean-François Crétaux (LEGOS/OMP/CNRS, France), Jacob Fahy (NPL, United Kingdom), Vincent Favier (IGE, France), Roger Fjortoft (CNES, France), Sara Fleury (LEGOS/OMP/CNRS, France), Renée Fredensborg Hansen (DTU Space, Denmark), Benoit Laignel (M2C/University of Rouen, France), Emmanuel Le Meur (IGE, France), Antonio Lourenco (LOCEAN/IPSL/CNRS, France), Jérôme Maxant (SERTIT/Connectus/University of Strasbourg, France), Ashley Morris (Norwegian Polar Institute, Norway), Eric Munesa (NOVELTIS, France), Karina Nielsen (DTU Space, Denmark), Adrien Paris (Ocean Next, France), Ghislain Picard (IGE, France), Antoine Rabatel (IGE, France), Nico Sneeuw (GIS/University of Stuttgart, Germany), Nicolas Taburet (CLS, France), Angelica Tarpanelli (CNR-IRPI, Italy), Mohammad Tourian (GIS/University of Stuttgart, Germany), Guillaume Valladeau (VORTEX.io, France), Maxime Vayre (CLS, France), Frédéric Vivier (LOCEAN/IPSL/CNRS, France), Emma Woolliams (NPL, United Kingdom), Hervé Yésou (SERTIT/Connectus/University of Strasbourg, France), Lionel Zawadzki (CNES, France), Pierre Féménias (ESA/ESRIN, Italy)

**16:45 - 16:55:**

[Understanding Decadal-scale Trends in Altimeter-derived Significant Wave Height in the Bering Sea](#)

Reint Fischer (University of Maryland, United States), Sinead Louise Farrell (University of Maryland, USA), John M Kuhn (NOAA Laboratory for Satellite Altimetry, USA), Kyle Duncan (University of Maryland, USA)

**16:55 - 17:05:**

[Waiting for CRISTAL: evaluation of a snow depth product using Ka/Ku dual-frequency altimetry. Impacts on sea ice thickness estimation.](#)

Sara Fleury (LEGOS, France), Florent Garnier (LEGOS, France), Marion Bocquet (LEGOS, France), Michel Tsamados (UCL, England), Renée Fredensborg Hansen (DTU, Denmark), Jérôme Bouffard (ESA/ESRIN, Italy)

**17:05 - 17:15:**

[Water Elevation and Water Extent Measurements With Sentinel-6A Radar Altimeter Fully-Focussed SAR Data](#)

Ferran Gibert (isardSAT S.L., Spain), Adrià Gómez-Olivé (isardSAT S.L., Spain), Charlie McKeown (isardSAT Ltd., UK), Robert Molina (isardSAT S.L., Spain), Albert Garcia-Mondéjar (isardSAT S.L., Spain)

**17:15 - 17:25:**

[Reconstructing the spatial and temporal elevation signals on large lakes from ICESat-2](#)

Karina Nielsen (DTU Space, Denmark), Heidi Ranndal (DTU Space, Denmark), Ole B. Andersen (DTU Space, Denmark)

**17:25 - 17:35:**

[Tides and bathymetry in the Severn Estuaries using FFSAR processing of Sentinel-3 data](#)

Heidi Ranndal (DTU Space, Technical University of Denmark, Denmark), Ole Andersen (DTU Space, Denmark), David Cotton (SatOC, UK), Amani Becker (National Oceanography Centre, UK), Jean-Christophe Poisson (vorteX.io, France), Charlie Thompson (National Oceanography Centre, UK)

**17:35 - 17:45:**

[30 years of Arctic Ocean Sea Level from Space](#)

Stine Kildegaard Rose (DTU Space, Denmark)

**17:45 - 17:55:**

[Increased variability in Greenland Ice Sheet runoff detected by CryoSat-2 satellite altimetry](#)

Thomas Slater (University of Leeds, United Kingdom), Andrew Shepherd (Centre for Polar Observation and Modelling, School of Earth and Environment, University of Leeds, Leeds, UK, United Kingdom), Malcolm McMillan (Lancaster Environment Centre, Lancaster University, Lancaster, UK, United Kingdom), Amber Leeson (Lancaster Environment Centre, Lancaster University, Lancaster, UK, United Kingdom), Lin Gilbert (Mullard Space Science Laboratory, Department of Space & Climate Physics, University College London, London, UK, United Kingdom), Alan Muir (Mullard Space Science Laboratory, Department of Space & Climate Physics, University College London, London, UK, United Kingdom), Peter Kuipers Munneke (Institute for Marine and Atmospheric research Utrecht, Utrecht University, Utrecht, the Netherlands, Netherlands), Brice Noël (Institute for Marine and Atmospheric research Utrecht, Utrecht University, Utrecht, the Netherlands, Netherlands), Xavier Fettweis (SPHERES Research Unit, Department of Geography, University of Liège, Liège, Belgium, Belgium), Michiel van den Broeke (Institute for Marine and Atmospheric research Utrecht, Utrecht University, Utrecht, the Netherlands, Netherlands), Kate Briggs (Centre for Polar Observation and Modelling, School of Earth and Environment, University of Leeds, Leeds, UK, United Kingdom)

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## Friday, November 04 2022

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

### OSTST Closing Plenary Session

**Session chairs:** Pascal Bonnefond, Craig Donlon, Eric Leuliette, Remko Scharroo, Josh Willis  
(Fri, Nov 04 2022, 09:00 - 12:30)

#### Sala Grande

09:00 - 09:10:

[Application development for Operations summary](#)

09:10 - 09:20:

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

09:20 - 09:30:

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

09:30 - 09:40:

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

09:40 - 09:50:

[Precision Orbit Determination summary](#)

09:50 - 10:00:

[Quantifying Errors and Uncertainties in Altimetry Data summary](#)

10:00 - 10:10:

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

10:10 - 10:20:

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

10:20 - 10:30:

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

10:30 - 11:00: Coffee Break

11:00 - 11:20:

[Science Results from Satellite Altimetry summary](#)

11:20 - 11:30:

[CFOSAT summary](#)

11:30 - 11:40:

[Status of TOPEX Reprocessing](#)  
Shailen Desai (JPL, United States)

11:40 - 11:50:

[Jason/GDR status and plans](#)  
Nicolas Picot (CNES, France)

11:50 - 12:05:

[Presentation from students \(Argonautica project\)](#)

12:05 - 12:30:

[Discussion, summary and recommendations](#)

12:30 - 14:00: Lunch

## Posters Sessions

### Application development for Operations

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

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**APO2022\_001 - [NOAA's Jason Products](#)**

David Donahue (NOAA/NESDIS/OSPO), Donald Richardson (ERT Corporation), Yongsheng Zhang (NOAA/NESDIS/NCEI)

**APO2022\_002 - [DUACS DT2021: 28 years of reprocessed sea level altimetry products](#)**

Guillaume Taburet (CLS), Maxime Ballarotta (CLS), Marie-Isabelle Pujol (CLS), Jean-François Legeais (CLS), Gwenola Maillard (ALTEN), Chloé Durand (ALTEN), Quentin Dagneaux (CELAD), Marine Lievin (CLS), Yannice Faugere (CLS), Gerald Dibarboure (CNES)

**APO2022\_003 - [Altimeter Processing System – 2.0 \(ALPS2\)](#)**

Gregg Jacobs (Naval Research Laboratory), Joseph D'Addezio (Naval Research Laboratory), Brent Bartels (Paraton), Carolyn Babcock (Naval Oceanographic Office), Alexandria Grimes (Naval Oceanographic Office), Bruce McKenzie (Naval Oceanographic Office), Cynthia Higginbotham (Paraton), Lamar Russell (Naval Oceanographic Office), Doug May (Naval Oceanographic Office)

**APO2022\_004 - [Integral length scale of ocean surface waves via CFOSAT along-track observation](#)**

Yang Gao (CNRS, Univ. Lille, Univ. Littoral Cote d'Opale, UMR 8187, LOG, Laboratoire d'Océanologie et de Géosciences, F 62930 Wimereux, France), Francois Schmitt (CNRS, Univ. Lille, Univ. Littoral Cote d'Opale, UMR 8187, LOG, Laboratoire d'Océanologie et de Géosciences, F 62930 Wimereux, France), Jianyu Hu (State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University, Xiamen 361102, China), Yongxiang Huang (State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University, Xiamen 361102, China)

**APO2022\_005 - [Homogeneous multi-mission 20 Hz sea level anomaly \(20 Hz L2P\) products available](#)**

Sabine Philipps (CLS), Cécile Kocha (CLS), Alexandre Philip (CLS), Marine Lievin (CLS), Isabelino Denis (CNES), Carolina Nogueira Loddo (EUMETSAT)

**APO2022\_006 - [Homogeneous multi-mission along-track Sea Level Anomalies, Wave and Wind \(Level-2P\) : implementation of Sentinel-6A/Jason-CL](#)**

Cecile Kocha (CLS), Alexandre Philip (CLS), Marine Lievin (CLS), Sabine Philipps (CLS), Elodie Charles (CLS), Christophe Marechal (cnes), Jouan christophe (Cnes), Thierry Guinle (cnes), Carolina Nogueira Loddo (eumetsat)

**APO2022\_007 - [Sentinel-3 Marine Altimetry Centre](#)**

Bruno Lucas (EUMETSAT)

**APO2022\_008 - [The new daily global mesoscale Blended Ocean Surface Current \(BOSC\) product](#)**

James Carton (University of Maryland), Shaun Eisner (University of Maryland), Eric Leuliette (NOAA/NESDIS), Deirdre Byrne (NOAA/NESDIS), Semyon Grodsky (University of Maryland)

**APO2022\_009 - [Presentation of the near-real time and delayed time global database of mesoscale ocean eddies detected by TOEddies on altimetry fields and co-located with \(BGC-\)Argo floats.](#)**

Rémi Laxenaire (Laboratoire de Météorologie Dynamique, LMD-IPSL, Ecole Normale Supérieure, Paris, France; LACy, Laboratoire de L'Atmosphère et des Cyclones, UMR 8105 CNRS, Université de La Réunion, Météo-France, Saint-Denis), Artemis Ioannou (Laboratoire de Météorologie Dynamique, LMD-IPSL, Ecole Normale Supérieure, Paris, France), Sabrina Speich (Laboratoire de Météorologie Dynamique, LMD-IPSL, Ecole Normale Supérieure, Paris, France; Ecole Normale Supérieure ENS-PSL, Paris)

**APO2022\_010 - [A new operational ocean data assimilation and forecasting system of the Japan Meteorological Agency](#)**

Hiroaki Asai (Japan Meteorological Agency), Mikitoshi Hirabara (Japan Meteorological Agency), Takuma Yoshida (Japan Meteorological Agency)

**APO2022\_011 - [Performances of the new Copernicus Marine Service global ocean monitoring and forecasting real-time high-resolution system](#)**

Jean-Michel Lellouche (Mercator Ocean International), Eric Greiner (Collecte Localisation Satellites), Giovanni Ruggiero (Mercator Ocean International), Romain Bourdallé-Badie (Mercator Ocean International), Charles-Emmanuel Testut (Mercator Ocean International), Olivier Le Galloudec (Mercator Ocean International), Mounir Benkiran (Mercator Ocean International), Gilles Garric (Mercator Ocean International)

**APO2022\_012 - [Assessment of NRT Wind and Wave Data from Sentinel Altimetry](#)**

Saleh Abdalla (ECMWF)

**APO2022\_013 - [CRISTAL MARINE DATA CENTRE](#)**

Cristina Martin-Puig (EUMETSAT), Marco Meloni (EUMETSAT), Carolina Nogueira Lodo (EUMETSAT), Remko Scharroo (EUMETSAT), Julia Figa Saldana (EUMETSAT), Conrad Jackson (EUMETSAT)

## CFOSAT

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

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**CFO2022\_001** - [A study of SWIM directional wave spectra during rogue wave cases](#)

Alice Dalphiné (Météo-France), Lotfi Aouf (Météo-France), Eva Le Merle (ISMAR (CNR)),  
Danièle Hauser (LATMOS (CNRS, UVSQ, Sorbonne Université))

## Coastal Altimetry

Session chairs: Florence Birol, Mathilde Cancet, Marcello Passaro, Ted Strub

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**COA2022\_001** - [A diagnosis of surface currents and sea surface heights in a coastal region](#)

Sung Yong Kim (Korea Advanced Institute of Science and Technology), Eun Ae Lee (Korea Advanced Institute of Science and Technology)

**COA2022\_002** - [On the use of satellite altimeter-derived wind speed for the evaluation of the Weather Research and Forecasting model](#)

Roberto Mulero-Martinez (Department of Applied Physics. University of Cadiz.), Jesús Gómez-Enri (Department of Applied Physics. University of Cadiz.), Carlos Román-Cascón (Department of Applied Physics. University of Cadiz / Department of Earth Physics and Astrophysics. Complutense University of Madrid.), Rafael Mañanes (Department of Applied Physics. University of Cadiz.), Alfredo Izquierdo (Department of Applied Physics. University of Cadiz.), Miguel Bruno (Department of Applied Physics. University of Cadiz.)

**COA2022\_003** - [Seasonal and non-seasonal sea surface height variations within the Makassar Strait](#)

Kaoru Ichikawa (RIAM, Kyushu University), Ganmmeng Zhang (ESST, Kyushu University)

**COA2022\_004** - [Deep Learning and SAR Altimetry Techniques in Coastal Island Areas](#)

Nick Flokos (National Technical University of Athens)

**COA2022\_005** - [Assessment of global and regional tidal models in coastal regions – a contribution to improve coastal altimetry retrievals](#)

Mathilde Cancet (NOVELTIS), Ergane Fouchet (NOVELTIS), David Cotton (SatOC), Jérôme Benveniste (ESA/ESRIN)

**COA2022\_006** - [New advances in altimetry towards the coast : example of the CTOH sea level products](#)

Fabien Léger (LEGOS / CTOH), Florence Birol (LEGOS / CTOH), Fernando Niño (LEGOS / CTOH), Wassim Fkaier (LEGOS / CTOH), Fabien Blarel (LEGOS / CTOH)

**COA2022\_007** - [Coastal Processing from the Copernicus Altimeters: the CORS processor outcomes](#)

Pablo Garcia (isardSAT), Alba Granados (isardSAT), Mònica Roca (isardSAT), Segarra Federico (isardSAT)

**COA2022\_008** - [Evaluation of coastal water level products in SAR mode](#)

Luciana Fenoglio (University of Bonn), Hakan Uyanik (University of Bonn), Bernd Uebbing (University of Bonn), Sophie Stolzenberger (University of Bonn), Buchhaupt Christopher (University of Maryland), Jürgen Kusche (University of Bonn)

**COA2022\_009** - [Circulation variability of the South-Patagonia continental shelf from in-situ and satellite data](#)

Loreley Lago (UBA-CIMA-CONICET), Martin Saraceno (UBA-CIMA-CONICET), Alberto Piola (SHN)

**COA2022\_010** - [Comparison of Cryosat-2 and Sentinel-3 Altimetry with in situ measurements of Sea Level, Significant Wave Height and Wind Speed in the Northern Adriatic and around Venice](#)

Stefano Vignudelli (Consiglio Nazionale delle Ricerche (CNR-IBF)), Francesco De Biasio (Consiglio Nazionale delle Ricerche (CNR-ISP))

**COA2022\_011** - [Shelf/Deep Ocean Exchanges in the Southern Africa Region](#)

Ricardo Matano (Ricardo Matano), Vincent Combes (Oregon State University), Ted Strub (Oregon State University), Corinne James (Oregon State University)

**COA2022\_012** - [RiwiSAR-SWH: A data-driven method for estimating significant wave height using Sentinel-3 SAR altimetry](#)

Mohammad J. Tourian (University of Stuttgart, Institute of Geodesy), Junyang Gou (Institute of Geodesy and Photogrammetry, ETH Zurich)

**COA2022\_013** - [Portagauge and Satellite Sea level monitoring system for the Southwest Indian Ocean – PASS-SWIO](#)

David Cotton (Satellite Oceanographic Consultants Ltd), Amani Becker (National Oceanography Centre), Angela Hibbert (National Oceanography Centre), Francisco Mir Calafat (National Oceanography Centre), Simon Williams (National Oceanography Centre), Hajanirina Razafindrainibe (Satellite Oceanographic Consultants Ltd)

**COA2022\_014** - [Fully Focused SAR Altimetry and Innovative River Level Gauges for Coastal Monitoring – the FFSAR-Coastal Project](#)

David Cotton (Satellite Oceanographic Consultants Ltd), Ole Balthazar Andersen (DTU Space), Heidi Rannal (DTU Space), Jean-Christophe Poisson (vortex.io), Charlie Thompson (Channel Coast Observatory), Amani Becker (National Oceanography Centre)

**COA2022\_015** - [Impact of wind on sea level anomalies on the Patagonian Shelf coherence analysis on different temporal scales](#)

Marie-Christin Juhl (DGFI-TUM), Marcello Passaro (Deutsches Geodätisches Forschungsinstitut der Technischen Universität München (DGFI-TUM), Arcisstrasse 21, 80333 Munich), Denise Dettmering (Deutsches Geodätisches Forschungsinstitut der Technischen Universität München (DGFI-TUM), Arcisstrasse 21, 80333 Munich), Martin Saraceno (Centro de Investigaciones del Mar y la Atmosfera (CIMA/CONICET-UBA) / Departamento de Ciencias de la Atmósfera y los Océanos, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires (DCAO, FCEN-UBA) )

**COA2022\_016** - [Analysis of hydrographic data collected by Southern Elephant Seals in the Argentine continental shelf](#)

Melina M Martinez (CIMA), Laura Ruiz-Etcheverry (CIMA), Martin Saraceno (Universidad de Buenos Aires), Christophe Guinet (Centre d'Etudes Biologiques de Chizé)



## 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

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**IPM2022\_001** - [Improving SAR Altimeter processing over Inland Water - the ESA HYDROCOASTAL project](#)

David Cotton (Satellite Oceanographic Consultants Ltd)

**IPM2022\_002** - [Improving SAR Altimeter processing over the coastal zone - the ESA HYDROCOASTAL project](#)

David Cotton (Satellite Oceanographic Consultants Ltd)

**IPM2022\_003** - [On-ground processing and performance of the Poseidon-4 altimeter internal calibration: chirp replica and attenuator](#)

Michele Scagliola (Aresys), Lisa Recchia (Aresys), Alessio Izzo (Aresys), Andrea Recchia (Aresys), Marco Fornari (RHEA for ESA), Robert Cullen (ESA), Luisella Giulicchi (ESA)

**IPM2022\_004** - [A star-tracker processor for Sentinel-6: performance and application for radar antenna pitch bias calibration](#)

Gerard Gallardo i Peres (isardSAT S.L.), Ferran Gibert (isardSAT S.L.), Gorka Moyano (isardSAT S.L.), Marco Fornari (European Space Agency), Albert Garcia-Mondéjar (isardSAT S.L.), Mònica Roca i Aparici (isardSAT S.L.)

# Instrument Processing: Propagation, Wind Speed and Sea State Bias

Session chairs: Shannon Brown, Estelle Obligis

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**IPC2022\_001** - [Synergistic use of the Sentinel-3A SRAL/MWR and SLSTR Sensors for the Wet Tropospheric Correction Retrieval](#)

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

**IPC2022\_002** - [Exploitation of the ENA Ground-Based Water Vapour Radiometers in Satellite Altimetry](#)

Bernard Vasconcellos (DGAOT, Faculdade de Ciências, Universidade do Porto), Clara Lázaro (DGAOT, Faculdade de Ciências, Universidade do Porto), Telmo Vieira (DGAOT, Faculdade de Ciências, Universidade do Porto), M. Joana Fernandes (DGAOT, Faculdade de Ciências, Universidade do Porto)

**IPC2022\_003** - [Characterizing Rain Cells as Measured by a Ka-band Nadir Radar Altimeter: First Results and Impact on Future Altimetry Missions](#)

Bruno Picard (Fluctus SAS), Nicolas Picot (CNES), Gérald Dibarbouré (CNES), Nathalie Steunou (CNES)

**IPC2022\_004** - [Fundamental data records for altimetry: 20 years of ERS and Envisat Microwave Radiometer reprocessed data](#)

Marie-Laure Frery (CLS), Mathilde Siméon (CLS), Pierre Thibaut (CLS), Fanny Piras (CLS), Franck Fell (Informus), Ralph Bennartz (Informus), Bruno Picard (Fluctus), Emma Woolliams (NPL), Pierre Féménias (ESA/ESRIN)

**IPC2022\_005** - [Integration of SIRGAS-CON data in the estimation of the Wet Tropospheric Correction for Latin America Coastal Altimetry](#)

Anderson Prado (Faculdade de Ciências da Universidade do Porto (FCUP)), Nelson Pires (Faculdade de Ciências da Universidade do Porto (FCUP), Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR)), Telmo Vieira (Faculdade de Ciências da Universidade do Porto (FCUP), Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR)), M. Joana Fernandes (Faculdade de Ciências da Universidade do Porto (FCUP), Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR))

**IPC2022\_006** - [Sentinel3 Microwave radiometers : Latest processing improvement, performances and stability assessment of](#)

Marie-Laure Frery (CLS), Mathilde Siméon (CLS), Pierre Féménias (CLS)

**IPC2022\_007** - [Empirical, Nonparametric Estimation of the Sea State Bias using the Interpolation Method](#)

Alexa Putnam (University of Colorado Boulder, Colorado Center for Astrodynamics Research), Shailen Desai (Jet Propulsion Laboratory), R. Steven Nerem (University of Colorado, Colorado Center for Astrodynamics Research)

## OSTST Opening Plenary Session

**Session chairs:** Pascal Bonnefond, Craig Donlon, Eric Leuliette, Remko Scharroo, Josh Willis

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**OPE2022\_001** - [Sentinel-3 Marine Altimetry Mission](#)  
Bruno Lucas (EUMETSAT)

# Outreach, Education and Altimetric Data Services

Session chairs: Jack McNelis, Vinca Rosmorduc, Margaret Srinivasan

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**ODS2022\_001** - [Swot and hydrology from space outreach](#)

Vinca Rosmorduc (CLS), Nicolas Picot (Cnes)

**ODS2022\_002** - [Accessing Sentinel-6 and Sentinel-3 altimetry data through EUMETSAT big data services](#)

Ben Loveday (Innoflair UG), Aida Alvera-Azcárate (GHER, University of Liege), Vittorio Brando (CNR ISMAR), Ana Ruescas (Brockmann Consult GmbH / Universitat de València), Vinca Rosmorduc (CLS), Hayley Evers-King (EUMETSAT), Christine Träger-Chatterjee (EUMETSAT)

**ODS2022\_003** - [AVISO+ products and service: what's new?](#)

Laurent Soudarin (CLS), Françoise Mertz (CLS), Vinca Rosmorduc (CLS), Catherine Schgounn (CLS), Thierry Guinle (CNES)

**ODS2022\_004** - [CTOH studies for extending the range of altimetry applications over the ocean and continental surfaces](#)

Fabien Blarel (LEGOS-CNRS), Damien Allain (LEGOS), Florence Birol (LEGOS), Denis Blumstein (CNES), Robin Chevrier (LEGOS), Lucrèce DJEUMENI (Legos), Wassim Fkaier (Legos), Frederic Frappart (LEGOS), Yvan Gouzenes (LEGOS), Fabien Leger (LEGOS), Rosemary Morrow (LEGOS), Fernando Niño (LEGOS)

**ODS2022\_005** - [ODATIS, Ocean Data Information and Services for Easier Access to Data and Analytical Services](#)

Caroline Mercier (ODATIS), Gérald DIBARBOURE (CNES), Gilbert MAUDIRE (AKKA), Sabine SCHMIDT (CNRS, Univ. Bordeaux, EPOC, EPHE, UMR 5805), Joël SUDRE (UMS CPST, CNRS 2013, IRD 1S26300), Erwann QUIMBERT (Ifremer)

**ODS2022\_006** - [Cryo2Ice Coincident Data Explorer](#)

Alex Horton (Earthwave), Martin Ewart (Earthwave Ltd), Julia Bizon (Earthwave), Jonathan Alford (Earthwave), Noel Gourmelen (University of Edinburgh)

**ODS2022\_007** - [Sentinel-3 Topography mission Assessment through Reference Techniques \(St3TART\) project – Focus on the FRM Data Hub](#)

Elodie Da Silva (NOVELTIS), Nicolas Picot (CNES), Henriette Skourup (DTU), Geir Moholdt (NPI), Jean-Christophe Poisson (vortex.io), Ole Andersen (DTU), Laurent Arnaud (IGE), Jérémie Aublanc (CLS), Sajedah Behnia (NPL), Etienne Berthier (LEGOS), Mathis Bertin (NOVELTIS), Denis Blumstein (CNES), Pascal Bonnefond (SYRTE), François Boy (SYRTE), Stéphane Calmant (IRD), Michel Calzas (DT-INSU), Stefania Camici (CNR-IRPI), Mathilde Cancet (NOVELTIS), Jean-François Cretaux (LEGOS), Vincent Favier (IGE), Roger Fjortoft (CNES), Sara Fleury (LEGOS), Mie Fredensborg Hansen Renée (DTU), Benoit Laignel (M2C), Emmanuel Le Meur (IGE), Antonio Lourenco (LOCEAN), Jérôme Maxant (SERTIT/Connectus), Ashley Morris (NPI), Eric Munesa (NOVELTIS), Karina Nielsen (DTU), Adrien Paris (Hydro Matters), Ghislain Picard (IGE), Antoine Rabatel (IGE), Nico Sneeuw (GIS (Univ. Stuttgart)), Nicolas Taburet (CLS), Angelica Tarpanelli (CNR-IRPI), Mohammad Tourian (GIS (Univ. Stuttgart)), Guillaume Valladeau (vortex.io), Maxime Vayre (CLS), Frederic Vivier (LOCEAN), Emma Woolliams (NPL), Hervé Yesou (SERTIT/Connectus), Lionel Zawadzki (CNES), Pierre Féménias (ESA)

**ODS2022\_008** - [SAR, SARin, RDSAR and FF-SAR Altimetry Processing on Demand for CryoSat-2, Sentinel-3 and Sentinel-6 at ESA's Altimetry Virtual Lab](#)

Jérôme Benveniste (ESA-ESRIN), Salvatore Dinardo (Collecte Localisation Satellites), Christopher Buchhaupt (University of Maryland), Michele Scagliola (RHEA/ESRIN), Marcello Passaro (DGFITUM), Luciana Fenoglio-Marc (Institute of Geodesy and Geoinformation, University of Bonn), Giovanni Sabatino (Progressive Systems), Marco Restano (SERC/ESRIN), Américo Ambrósio (DEIMOS/ESRIN), Carla Orru (Progressive Systems)

# Precision Orbit Determination

Session chairs: Sean Bruinsma, Alexandre Couhert, Frank Lemoine

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**POD2022\_001 - [Copernicus POD Service: Overview and status](#)**

Jaime Fernández (GMV AD.), Marc Fernández (GMV AD.), Heike Peter (PosiTim UG), Pierre Féménias (ESA/ESRIN)

**POD2022\_002 - [Analysis of attitude dependent deficiencies in precise orbit solutions of Jason-3](#)**

Cyril Kobel (AIUB), Daniel Arnold (AIUB), Adrian Jäggi (AIUB)

**POD2022\_003 - [POE-F reprocessing of Jason-1 CNES precise orbit solutions](#)**

Vincent Debout (CS), Georgia Katsigianni (CLS), Alexandre Couhert (CNES), John Moyard (CNES)

**POD2022\_004 - [International Combination Service for Time-Variable Gravity Fields \(COST-G\) – Overview of Current Activities and Future Perspectives](#)**

Adrian Jäggi (University of Bern), Ulrich Meyer (University of Bern), Joao Teixeira da Encarnação (TU Delft), Martin Lasser (University of Bern), Frank Flechtner (German Research Centre for Geosciences), Christoph Dahle (German Research Centre for Geosciences), Eva Boergens (German Research Centre for Geosciences), Förste Christoph (German Research Centre for Geosciences), Torsten Mayer-Gürr (TU Graz), Andreas Kvas (TU Graz), Behzadpour Saniya (TU Graz), Jean-Michel Lemoine (CNES), Stéphane Bourgogne (Stellar Space Studies), Igor Koch (University of Hannover), Matthias Duwe (University of Hannover), Jakob Flury (University of Hannover), Matthias Weigelt (University of Hannover), Heike Peter (PosiTim UG), Andreas Groh (TU Dresden), Annette Eicker (HafenCity University Hamburg), Alejandro Blazquez (LEGOS), Benoit Meyssignac (LEGOS)

**POD2022\_005 - [Determination of the geocentric gravitational constant to monitor the behavior of the Earth](#)**

Marie CHERRIER (CNES/CLS), Alexandre COUHERT (CNES), Clément COURDE (Observatoire de la Côte d'Azur), Pierre EXERTIER (GET), Jean-Michel LEMOINE (CNES), Flavien MERCIER (CNES), Eléonore SAQUET (CLS)

# Quantifying Errors and Uncertainties in Altimetry data

Session chairs: Michael Ablain, Joel Dorandeu, Remko Scharroo

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**ERR2022\_001** - [In-situ measurements for altimetry cal/val: overview of the H2020 CCVS project](#)

Céline Tison (CNES), Sylvie Labroue (CLS), Thierry Guinle (CNES), François Bignalet-Cazalens (CNES), Matthias Raynal (CNES), Francesco Nencioli (CLS), Stefanie Holzwarth (DLR), Martin Ligi (University of Tartu), Sébastien Clerc (ACRI-ST)

**ERR2022\_002** - [Validation of altimetry by using in situ observations of pressure and acoustic travel time in the Southern Ocean](#)

Jens Schroeter (Alfred-Wegener-Institute), Olaf Boebel (AWI), Roelof Rietbroek (University of Twente)

**ERR2022\_003** - [Quality flag and uncertainties of water surface height over Inland waters](#)

Beatriz Calmettes (CLS), Jean-Alexis Daguze (CLS), Julien Renou (CLS), Nicola Taburet (CLS)

**ERR2022\_004** - [A Trihedral Corner Reflector to Support Radar Altimeters External Calibration](#)

Albert Garcia-Mondejar (isardSAT Ltd.), Adrià Gómez (isardSAT SL.), Ferran Gibert (isardSAT SL.), Adrián Flores (isardSAT SL.), Sergi Hernández (isardSAT SL.), Ester Vendrell (isardSAT SL.), Mònica Roca i Aparici (isardSAT SL.)

**ERR2022\_005** - [On the uncertainty associated with detecting global and local mean sea level drifts on Sentinel-3A and Sentinel-3B altimetry missions](#)

Rémi Jugier (Magellium), Michaël Ablain (Magellium), Robin Fraudeau (Magellium), Adrien Guerou (CLS), Pierre Femenias (ESA/ESRIN)

**ERR2022\_006** - [Propagating uncertainties and error correlation structures through retracking and sea state bias correction](#)

Sajedeh Behnia (National Physical Laboratory), Jonathan Mittaz (Reading University), Hannah Cheales (NPL), Emma Woolliams (NPL)

# 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

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**CVL2022\_001 - [Jason-3 & Sentinel-6 MF calibration at the Corsica facilities](#)**

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

**CVL2022\_002 - [The Harvest Experiment: Status and New Results from the Sentinel-6 Mission](#)**

Bruce Haines (Jet Propulsion Laboratory, California Institute of Technology), Shailen Desai (Jet Propulsion Laboratory, California Institute of Technology), Jean-Damien Desjonquères (Jet Propulsion Laboratory, California Institute of Technology), Bob Leben (University of Colorado, Boulder), Christian Meinig (NOAA Pacific Marine Environmental Laboratory), Scott Stalin (NOAA Pacific Marine Environmental Laboratory), Andy Wu (Jet Propulsion Laboratory, California Institute of Technology)

**CVL2022\_003 - [Absolute and relative calibration of HY-2B satellite altimeter using the permanent Cal/Val infrastructure in Crete](#)**

Stelios Mertikas (Technical University of Crete), Mingsen Lin (National Satellite Ocean Application Service), Chaofei Ma (National Satellite Ocean Application Service), Dimitrios Piretzidis (Space Geomatica), Yongjun Jia (National Satellite Ocean Application Service), Lei Yang (First Institute of Oceanography), Xenophon Frantzis (Technical University of Crete), Constantine Kokolakis (Space Geomatica), Achilles Tripolitsiotis (Space Geomatica)

**CVL2022\_004 - [Regional in situ Cal/Val of Sentinel-3A&B altimeter range at non-dedicated sites](#)**

Mathilde Cancet (NOVELTIS), Pascal Bonnefond (SYRTE/OBSPM), Christopher Watson (University of Tasmania), Bruce Haines (JPL/NASA), Florent Lyard (LEGOS/OMP/CNRS), Olivier Laurain (GEOAZUR/OCA), Pierre Féménias (ESA/ESRIN)

**CVL2022\_005 - [12 years of Cryosat-2 range datation and interferometer calibration with Transponder](#)**

Adrián Flores de la Cruz (isardSAT), Albert Garcia-Mondéjar (isardSAT), Jerome Bouffard (European Space Agency/ESRIN), Alessandro Di Bella (European Space Agency/ESRIN), Mònica Roca (isardSAT), Marco Fornari (European Space Agency/ESTEC)

**CVL2022\_006 - [A Dual Band Transponder for Calibrating the Sentinel-6 Mission](#)**

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

**CVL2022\_007 - [Challenges for Cal/Val activities of Copernicus missions: an overview by CCVS project for altimetry](#)**

Sylvie Labroue (CLS), Céline Tison (CNES), Franceso Nencioli (CLS), Matthias Raynal (CNES), Jérémie Aublanc (CLS), Nicolas Taburet (CLS), Adrien Guérou (CLS), Marie Laure Denneulin (CLS), Thierry Guinle (CNES), François Bignalet Cazalet (CNES), Sébastien Clerc (ACRI-ST)

**CVL2022\_008 - [Global cross-calibration of the Jason-3 and Sentinel-6 Michael Freilich missions during their tandem period.](#)**

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

**CVL2022\_009 - [Results from Independent Calibration and Validation of Jason-3 on the Interleaved Orbit](#)**

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

**CVL2022\_010 - [Global Ocean Data Quality Assessment of SARAL/AltiKa's GDR-F products](#)**

Jettou Ghita (CLS), Manon Rousseau (ALTEN), Nadege Queruel (CNES), Françoise Bignalet-Cazalet (CNES), Nicolas Picot (CNES), Pierre Prandi (CLS)

**CVL2022\_011 - [Detecting rain cells in SARAL/AltiKa data: results from a supervised learning experiment](#)**

Pierre Prandi (CLS), Benjamin Pelvet (CLS), Julien Bocage (CLS), Gérald Dibarbouré (CNES)

**CVL2022\_012** - [Evaluation and scientific exploitation of CryoSat ocean products for oceanographic studies](#)

Chris Banks (National Oceanography Centre), Francisco Mir Calafat (National Oceanography Centre), Christine Gommenginger (National Oceanography Centre), Helen Snaith (British Oceanographic Date Centre, National Oceanography Centre), Andrew Shaw (SKYMAT Ltd.), Jérôme Bouffard (ESA), Alessandro Di Bella (Serco for ESA)

**CVL2022\_013** - [Update on CryoSat-2 long-term ocean data analysis and validation](#)

Marc Naeije (TUDelft), Ernst Schrama (TU Delft), Alessandro Di Bella (ESRIN-ESA), Jerome Bouffard (ESRIN-ESA)

**CVL2022\_014** - [Haiyang-2C data assessment, performance and contribution to DUACS Sea Level Anomaly products](#)

Alexandre Philip (CLS), Guillaume Taburet (CLS), Yannice Faugère (CLS), Nadège Quérueil (CNES), François Bignalet-Cazalet (CNES), Gérald Dibarboure (CNES)

**CVL2022\_015** - [Measuring mean sea level with surface drifting buoys](#)

Shane Eliptot (University of Miami), Bruce Haines (NASA JPL), Josh Willis (NASA JPL), Luca Centurioni (Scripps Institution of Oceanography), Rick Lumpkin (NOAA AOML)

**CVL2022\_016** - [Assessment of the Sentinel-6 Michael Freilich extension to the TOPEX/Jason Sea Surface Height Climate Data Record referenced to ITRF2020](#)

Brian Beckley (KBR Inc./NASA GSFC), Richard Ray (NASA GSFC), Frank Lemoine (NASA GSFC), Nikita Zelensky (University of Maryland), Xu Yang (KBR Inc. NASA GSFC), Gary Mitchum (University of South Florida), Doug Vandemark (University of New Hampshire), Hui Feng (University of New Hampshire), Bryant Loomis (NASA GSFC), Michael Croteau (NASA GSFC)

**CVL2022\_017** - [Impact of the TopEx/Poseidon GDR-F reprocessing on the Global Mean Sea Level climate data record](#)

Adrien Guerou (CLS), Anne Barnoud (Magellium), Michaël Ablain (Magellium), Héléne Roinard (CLS), François Bignalet-Cazalet (CNES), Gérald Dibarboure (CNES), Nicolas Picot (CNES)

**CVL2022\_018** - [Assessment over ocean of the last Poseidon1 reprocessing](#)

Héléne Roinard (CLS), François Bignalet-Cazalet (CNES), Nicolas Picot (CNES), Pierre Thibaut (CLS)

**CVL2022\_019** - [Improved inter-calibration of multi-mission altimeter significant wave heights for climate data record](#)

Guillaume Dodet (IFREMER), Yves Quilfen (IFREMER), Graham Quartly (Plymouth Marine Laboratory), Marcello Passaro (TUM), Ben Timmermans (NOC), Mickaël Accensi (IFREMER), Fabrice Arduin (IFREMER)

**CVL2022\_020** - [Jason-3: ALES vs ADAPTIVE vs MLE4, comparing the retracking solutions](#)

Benjamin Flamant (CLS), Matthias Raynal (CNES)

**CVL2022\_021** - [Advantages and drawbacks of the filtered solution for dual-frequency ionospheric correction from altimeter](#)

Francesco Nencioli (CLS), Helene Roinard (CLS), Francois Bignalet-Cazalet (CNES), Gerald Dibarboure (CNES), Nicolas Picot (CNES)

**CVL2022\_022** - [Cal/Val of recent altimeter missions at non-dedicated tide gauge stations in the North Sea](#)

Saskia Esselborn (GFZ, Helmholtz-Centre Potsdam), Tilo Schöne (GFZ, Helmholtz-Centre Potsdam), Julia Illigner (GFZ, Helmholtz-Centre Potsdam), Robert Weiß (BfG, The German Federal Institute of Hydrology), Thomas Artz (BfG, The German Federal Institute of Hydrology), Xinge Huang (TU Berlin)

**CVL2022\_023** - [Regional Calval for past and future altimeters](#)

Luciana Fenoglio (University of Bonn)

**CVL2022\_024** - [Sentinel-3 Topography mission Assessment through Reference Techniques \(ESA St3TART project\) – Focus on SCalSIT](#)

Elodie Da Silva (NOVELTIS), Nicolas Picot (CNES), Jean-Christophe Poisson (vorteX.io), Ole Andersen (DTU), Mathis Bertin (NOVELTIS), Denis Blumstein (CNES), Pascal Bonnefond (OBSPM), François Boy (CNES), Stéphane Calmant (IRD), Michel Calzas (DT-INSU), Stefania Camici (CNR-IRPI), Mathilde Cancet (NOVELTIS), Jean-François Cretaux (LEGOS), Roger Fjortoft (CNES), Benoit Laignel (M2C (Univ Rouen)), Jérôme Maxant (SERTIT / Connectus), Eric Munesa (NOVELTIS), Karina Nielson (DTU), Adrien Paris (Ocean Next), Nico Sneeuw (GIS (Univ. Stuttgart)), Nicolas Taburet (CLS), Angelica Tarpanelli (CNR-IRPI), Mohammad Tourian (GIS (Univ. Stuttgart)), Guillaume Valladeau (vorteX.io), Maxime Vayre (CLS), Hervé Yesou (SERTIT/Connectus), Pierre Féménias (ESA)

**CVL2022\_025** - [Sentinel-3 Land STM: Land Ice Thematic Products](#)

Sebastian Bjerregaard Simonsen (Technical University of Denmark), Louise Sanberg Sørensen (Technical University of Denmark), Stine Rose (Technical University of Denmark), Jérémie AUBLANC (Collecte Localisation Satellites), Ghita JETTOU (Collecte Localisation Satellites), Pierre FEMENIAS (ESA-ESRIN)



# Science I: Climate data records for understanding the causes of global and regional sea level variability and change

Session chairs: Benjamin Hamlington, Benoit Meyssignac

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**SC12022\_001** - [Baltic SEAL: new insights into the mean and variability of the sea level in the Satellite Altimetry era](#)

Marcello Passaro (Deutsches Geodätisches Forschungsinstitut, Technische Universität München (DGFI-TUM)), Felix Müller (Deutsches Geodätisches Forschungsinstitut, Technische Universität München (DGFI-TUM)), Adili Abulaitijiang (Institute of Geodesy and Geoinformation (IGG), Universität Bonn, Germany), Ole B. Andersen (SPACE National Space Institute, Technical University of Denmark, (DTU)), Emma Chalencon (MaREI Centre, Department of Geography, Environmental Research Institute, University College Cork (UCC)), Denise Dettmering (Deutsches Geodätisches Forschungsinstitut, Technische Universität München (DGFI-TUM)), Michael Hart-Davis (Deutsches Geodätisches Forschungsinstitut, Technische Universität München (DGFI-TUM)), Jacob L. Hoyer (Danish Meteorological Institute (DMI)), Julius Oelsmann (Deutsches Geodätisches Forschungsinstitut, Technische Universität München (DGFI-TUM)), Laura Rautiainen (Finnish Meteorological Institute (FMI), Finland), Ida M. Ringgaard (Danish Meteorological Institute (DMI)), Jani Särkkä (Finnish Meteorological Institute (FMI)), Rory Scarrott (MaREI Centre, Department of Geography, Environmental Research Institute, University College Cork (UCC)), Christian Schwatke (Deutsches Geodätisches Forschungsinstitut, Technische Universität München (DGFI-TUM)), Kristine Skovgaard Madsen (Danish Meteorological Institute (DMI)), Laura Tuomi (Finnish Meteorological Institute (FMI)), Marco Restano (SERC0, c/o ESA-ESRIN), Jérôme Benveniste (ESA-ESRIN)

**SC12022\_002** - [Reprocessing of the ERS-1, ERS-2 and ENVISAT missions: performances of the FDR4ALT products](#)

Fanny Piras (CLS), Pierre Thibaut (CLS), Malcolm McMillan (Lancaster University), Eero Rinne (FMI), Frank Fell (Informus), Fernando Nino (LEGOS), Sara Fleury (LEGOS), Angelica Tarpanelli (IRPI), Annabelle Olivier (CLS), Hélène Roinard (CLS), Marie-Laure Denneulin (CLS), Beatriz Calmettes (CLS), Jean-Alexis Daguzé (CLS), Emma Woolliams (NPL), Pierre Féménias (ESA)

**SC12022\_003** - [Sea state uncertainty from a triple collocation analysis of observations during the Sentinel-6 Michael Freilich – Jason-3 tandem phase](#)

Ben Timmermans (National Oceanography Centre), Christine Gommenginger (National Oceanography Centre), Chris Banks (National Oceanography Centre)

**SC12022\_004** - [Monitoring the Ocean Heat Content and the Earth Energy imbalance from space altimetry and space gravimetry](#)

Michael Ablain (Magellium), Marti Florence (Magellium), Blazquez Alejandro (LEGOS, Université de Toulouse, CNES, CNRS, UPS, IRD), Meyssignac Benoit (LEGOS, Université de Toulouse, CNES, CNRS, UPS, IRD), Fraudeau Robin (Magellium), Restano Marco (ESA/ESRIN), Benveniste Jérôme (ESA/ESRIN), Dibarbouré Gérald (CNES)

**SC12022\_005** - [Monitoring the local heat content change over the Atlantic Ocean with the space geodetic approach: the 4DATLANTIC-OHC Project](#)

Michael Ablain (Magellium), Florence Marti (Magellium), Robin Fraudeau (Magellium), Victor Rousseau (Magellium), Alenjandro Blazquez (LEGOS, Université de Toulouse, CNES, CNRS, UPS, IRD, France), Benoit Meyssignac (LEGOS, Université de Toulouse, CNES, CNRS, UPS, IRD, France), Giuseppe Foti (NOC), Francisco Calafat (NOC), Damien Desbruyeres (IFREMER/LOPS), William Llovel (IFREMER/LOPS), Pablo Ortega (BSC), Rachel Killic (Metoffice), Marie Dreviron (MOi), Marco Restano (ESA/ESRIN), Jérôme Benveniste (ESA/ESRIN)

**SC12022\_006** - [Combining space gravimetry observations with data from satellite altimetry and high resolution visible imagery to resolve mass changes of endorheic basins and exorheic basins](#)

Alejandro Blazquez (CNES/ LEGOS), Benoit Meyssignac (CNES/LEGOS), Etienne Berthier (LEGOS), Laurent Longuevergne (Géosciences Rennes), Jean François Creataux (CNES/ LEGOS)

**SC12022\_007** - [Predicting short and long-term sea level changes using Deep learning](#)

Mads Ehrhorn (DTU Space), Ole Baltazar Andersen (DTU Space), Carsten Bjerre Ludwigsen (DTU Space)

**SC12022\_008** - [Impact of Greenland freshwater discharge on regional sea level trends in the Arctic ocean](#)

William Llovel (CNRS), Soumia Tajouri (LOPS/UBO), Florian Sevellec (LOPS/CNRS), Thierry Penduff (IGE/CNRS), Jean-Marc Molines (IGE/CNRS), Stéphanie Leroux (IGE/CNRS), Pierre Mathiot (IGE), Jeremie Mouginot (IGE/CNRS)

**SC12022\_009** - [Meridional Asymmetry in Recent Decadal Sea-Level Trends in the Subtropical Pacific Ocean](#)

Philip Thompson (University of Hawaii), Fabian Schloesser (University of Hawaii), Chris Piecuch (Woods Hole Oceanographic Institution)

**SC12022\_010** - [Evolution of Regional Sea Level Trends During Satellite Altimeter Era](#)

Benjamin Hamlington (NASA Jet Propulsion Laboratory), Se-Hyeon Cheon (NASA Jet Propulsion Laboratory), Christopher Piecuch (Woods Hole Oceanographic Institute), Philip Thompson (University of Hawaii at Manoa)

**SC12022\_011** - [Estimations of oceanic trends \(heat, salt, steric and mass budget\) in Mercator Ocean global reanalysis](#)

Romain Bourdalle-Badie (mercator ocean), Jean-Michel Lellouche (mercator ocean), Gilles Garric (mercator ocean), Eric Greiner (CLS), Mathieu Hamon (mercator ocean), Giovanni Ruggiero (mercator ocean), Olivier Le Galloudec (mercator ocean), Marie Drévillon (mercator ocean)

**SC12022\_012** - [Fluctuations in deep-ocean heat content and variations of steric sea level observed from Deep Argo floats](#)

Nathalie Zilberman (Scripps Institution of Oceanography), Gregory Johnson (PMEL), Virginie Thierry (IFREMER), Damien Desbruyeres (IFREMER), Llovel William (IFREMER)

## Science II: Large Scale Ocean Circulation Variability and Change

Session chairs: Weiqing Han, Thierry Penduff, LuAnne Thompson

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**SC22022\_001** - [Heat and salt fluxes in the San Matias Gulf](#)

Nicolás Aubone (CIMA/CONICET-UBA), Mariano Tonini (IPATEC-CONICET-UNCO), Martin Saraceno (CIMA/CONICET-UBA)

## Science III: Mesoscale and sub-mesoscale oceanography

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

Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine

Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine

**SC32022\_001** - [Towards improved analysis of short mesoscale sea level signals from satellite altimetry](#)

Yves Quilfen (IFREMER), Jean-François Piolle (IFREMER), Bertrand Chapron (IFREMER)

**SC32022\_002** - [Investigating the variability of eddy formation in the eastern subpolar North Atlantic from satellite altimetry](#)

Arunraj Kondetharayil Soman (Stockholm University), Léon Chafik (Stockholm University), Johan Nilsson (Stockholm University)

**SC32022\_003** - [Diagnosing ocean eddy salt transport from satellite altimetry and surface salinity data](#)

Oleg Melnichenko (Earth and Space Research, Seattle, WA), Peter Hacker (University of Hawaii, Honolulu, Hawaii), Vasco Müller (Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Bremen)

**SC32022\_004** - [Improved global sea surface height and currents maps from remote sensing and in situ observations](#)

Maxime Ballarotta (CLS), Clément Ubelmann (Ocean Next), Pierre Veillard (CLS), Pierre Prandi (CLS), Hélène Etienne (CLS), Sandrine Mulet (CLS), Yannice Faugère (CLS), Gérald Dibarbouré (CNES), Rosemary Morrow (LEGOS), Nicolas Picot (CNES)

**SC32022\_005** - [Ocean reanalysis skill during the S-MODE pilot campaign](#)

Joseph D'Addezio (Naval Research Laboratory), Gregg Jacobs (Naval Research Laboratory), Brent Bartels (Peraton), Christopher DeHaan (Peraton), Bruce McKenzie (NAVOCEANO), Matthew Kuhn (NAVOCEANO), Chad Kramer (NAVOCEANO)

**SC32022\_006** - [Characterizing wavenumber spectra in altimetry: An ADCP perspective](#)

Saulo Soares (Scripps Institution of Oceanography, UC San Diego), Gille Sarah (Scripps Institution of Oceanography, UC San Diego), Chereskin Teresa (Scripps Institution of Oceanography, UC San Diego), Firing Eric (University of Hawaii), Hummon Julia (University of Hawaii), Rocha Cesar (University of Connecticut)

**SC32022\_007** - [Toward Higher resolution Level-3 altimeter products](#)

Marie Isabelle Pujol (CLS), Yannice Faugère (CLS), Stephanie Dupuy (CLS), Oscar Vergara (CLS), Quentin Dagneaux (CLS), Gerald Dibarbouré (CNES), Marie-Helene Rio (ESA)

**SC32022\_008** - [Global spectral characteristics from 1Hz along-track altimetry](#)

Oscar Vergara (CLS), Rosemary Morrow (LEGOS), Isabelle Pujol (CLS), Gerald Dibarbouré (CNES), Clément Ubelmann (Ocean Next)

**SC32022\_009** - [Monitoring the mesoscale eddies interactions with the altimetry constellation](#)

Cori Pegliasco (CLS), Antoine Delepouille (CLS), Clément Busché (CLS), Rosemary Morrow (LEGOS), Yannice Faugère (CLS), Gerald Dibarbouré (CNES)

**SC32022\_010** - [Fostering collaborations for designing high level ocean data products : the case for community data challenges.](#)

Sammy Metref (MEOM-IGE, Université Grenoble Alpes), Emmanuel Cosme (Université Grenoble Alpes, CNRS, IRD, IGE, Grenoble), Clément Ubelmann (Datlas, Grenoble), Julien Le Sommer (Université Grenoble Alpes, CNRS, IRD, IGE, Grenoble), Aurélie Albert (Université Grenoble Alpes, CNRS, IRD, IGE, Grenoble), Maxime Ballarotta (Collecte Localisation Satellites, 31520 Ramonville-Saint-Agne), Adekunle Ajayi (Université Grenoble Alpes, CNRS, IRD, IGE, Grenoble, France ; Space Sense, 75001 Paris), Florian Le Guillou (Université Grenoble Alpes, CNRS, IRD, IGE, Grenoble), Maxime Beauchamp (IMT Atlantique, Lab-STICC, Université Bretagne Loire, Brest), Ronan Fablet (IMT Atlantique, Lab-STICC, Université Bretagne Loire, Brest)

**SC32022\_011** - [Studying physical processes in the Southwestern Atlantic to understand BIOlogical productivity & regional ecosystems \(SABIO\)](#)

Martin Saraceno (Universidad de Buenos Aires), Christophe Guinet (CNRS), Laura Ruiz-Etcheverry (CONICET), David Nerini (CNRS), Claudio Campagna (WCS), Denisse Sciamarella (CNRS), Nicolas Aubone (Universidad de Buenos Aires), Melina M. Martinez (Universidad de Buenos Aires), Julieta Campagna (WCS), Juan Bonel (Universidad de Buenos Aires)

**SC32022\_012** - [Global pattern of annual cycle of mesoscale sea level anomaly](#)

Nikolai Maximenko (IPRC/SOEST, University of Hawaii), Jan Hafner (IPRC/SOEST, University of Hawaii)

**SC32022\_013 - [Role of finescale processes in water exchanges and geostrophic circulation in western and central Baltic Sea](#)**

Luciana Fenoglio (University of Bonn), Joanna Staneva (Helmholtz Centre Geesthacht (HZG), Geesthacht ), Volker Mohrholz (Leibniz Institute for Baltic Sea Research Warnemünde), Johannes Kastensen (Helmholtz Centre for Ocean Research Kiel), Hermann Bange (Helmholtz Centre for Ocean Research Kiel), Jacob Benjamin (Helmholtz Centre Geesthacht (HZG), Geesthacht ), Kusche Jürgen (University of Bonn)

**SC32022\_014 - [MAGAL Constellation](#)**

Arlindo Marques (Efacec Energia - Máquinas e Equipamentos Eléctricos, S.A.), Clara Lázaro (Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR)/DGAOT, Faculdade de Ciências, Universidade do Porto), M. Joana Fernandes (Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR)/DGAOT, Faculdade de Ciências, Universidade do Porto), Joaquim Melo (Atlantic International Research Centre (AIR Centre)), André G. C. Guerra (Centro de Engenharia e Desenvolvimento (CEiiA)), André João (Centro de Engenharia e Desenvolvimento (CEiiA)), Miguel Martin (Centro de Engenharia e Desenvolvimento (CEiiA)), Miguel Arantes (Centro de Engenharia e Desenvolvimento (CEiiA)), Paulo Figueiredo (Centro de Engenharia e Desenvolvimento (CEiiA)), Vitor Coelho (Instituto de Telecomunicações de Aveiro (IT Aveiro)), Nuno Borges Carvalho (Instituto de Telecomunicações de Aveiro (IT Aveiro)), Catarina M. Cecilio (Associação para um Laboratório Colaborativo do Atlântico (+Atlantic )), Ana Martins (Fundação Gaspar Frutuoso (FGF)/Universidade dos Açores), Yaroslav Mashtakov (Universidade da Beira Interior (UBI)), Edgar Carrolo (Omnidea Lda.), Burke Fort (The University of Texas at Austin (UTAustin)), Byron Tapley (The University of Texas at Austin (UTAustin))

**SC32022\_015 - [Global mode water detection and its representation in heat transport](#)**

Yanxu Chen (Laboratoire de Météorologie Dynamique, Ecole Normale Supérieure), Sabrina Speich (Laboratoire de Météorologie Dynamique, Ecole Normale Supérieure), Rémi Laxenaire (Center for Ocean-Atmospheric Prediction Studies, Florida State University)

**SC32022\_016 - [A very particular cyclonic eddy between Brazil and Malvinas Currents](#)**

Gaston Manta (Ecole normale supérieure (Paris))

**SC32022\_017 - [Extreme events in three years of ocean physical measurements at the Global Argentine Basin Array of the Ocean Observatory Initiative](#)**

Camila Artana (CSIC ICM), Christine Provost (LOCEAN)

**SC32022\_018 - [Assessing the Impact of the Assimilation of SWOT Observations in a Global High-Resolution Analysis and Forecasting System](#)**

Mounir Benkiran (mercator-ocean), Pierre-Yves Le Traon (Mercator-ocean International-Ifremer), Elisabeth Rémy (Mercator-ocean International)

**SC32022\_019 - [What is the benefit of high-resolution sea level anomaly datasets? A case study in the Bay of Biscay and New Caledonia regions based on Jason2-3, Saral/AltiKA and Sentinel3](#)**

Lionel Gourdeau (LEGOS/IRD), Nadia Ayoub (LEGOS), Rosemary Morrow (LEGOS), Robin Chevrier (CLS), MeiLing Dabat (cls), Fabien Leger (LEGOS), Fabien Blarel (LEGOS)

**SC32022\_020 - [Deep learning for accurate SSH reconstruction from altimetry and SST observations](#)**

Scott Martin (University of Washington), Georgy Manucharyan (University of Washington)

**SC32022\_021 - [Ocean 2D eddy energy fluxes from small mesoscale processes with SWOT](#)**

Élisa Carli (LEGOS - CNES/CLS), Robin Chevrier (CLS), Rosemary Morrow (LEGOS/OMP, Université Toulouse III), Oscar Vergara (CLS)

**SC32022\_022 - [Physically-consistent mapped altimetry products on user-customizable grids](#)**

Cimarron Wortham (NorthWest Research Associates), Jeffrey Early (NorthWest Research Associates)

**SC32022\_023 - [High resolution SSH mapping with future satellite mission SWOT](#)**

Valentin Bellemin Laponnaz (CLS), Yannice Faugere (CLS), Maxime Ballarotta (CLS)

**SC32022\_024 - [Topological analysis of oceanographic time series](#)**

Denisse Sciamarella (CNRS), Juan Cruz Bonel (IFAEI), Martín Saraceno (CIMA), Christophe Guinet (CEBC)

**SC32022\_025 - [Coastal-to-open ocean exchange in the California Current System from new altimetry](#)**

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), Marcello Passaro (Deutsches Geodätisches Forschungsinstitut, Technische Universität München)

# Science IV: Altimetry for Cryosphere and Hydrology

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

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**SC42022\_001** - [Sentinel-3 Altimetry Thematic Data Product for cryosphere & benefits of the Sentinel-3 Validation Team](#)

Clément Lacrouts (ACRI-ST), Pierre Féménias (ESA/ESRIN), Stefano Vignudelli (CNR), Ghita Jettou (CLS), Matthias Raynal (CLS), Laïba Amarouche (CLS), Alan Muir (UCL), Malcolm McMillan (University of Lancaster)

**SC42022\_002** - [Sentinel-3 Altimetry Thematic Data Product for inland waters & Sentinel-3 Validation Team benefits](#)

Clément Lacrouts (ACRI-ST), Pierre Féménias (ESA/ESRIN), Stefano Vignudelli (CNR), Ghita Jettou (CLS), Matthias Raynal (CLS), Laïba Amarouche (CLS), Nicolas Taburet (CLS), Maxime Vayre (CLS)

**SC42022\_003** - [Towards long term sea ice volume series from altimetry in the Antarctic](#)

garnier florent (LEGOS), Sara Fleury (LEGOS), Marion Bocquet (LEGOS), Alice Carret (SERCOS), Jérôme Bouffard (ESA), Frédérique Rémy (LEGOS)

**SC42022\_004** - [Machine Learning based Classification of Lake ice and Open water from SAR Altimetry waveform parameters](#)

Jaya Sree Mugunthan (University of Waterloo, Waterloo Ontario), Claude R. Duguay (University of Waterloo, Waterloo Ontario, Canada; H2O Geomatics, Waterloo Ontario), Elena Zakharova (EOLA, Toulouse, France; Water Problem Institute of RAS, Moscow)

**SC42022\_005** - [Cryo-TEMPO: A new era of CryoSat-2 Thematic Products over Ice, Ocean and Inland Water](#)

Malcolm McMillan (Lancaster University), The Cryo-TEMPO consortium (Lancaster University), Jerome Bouffard (ESA), Alessandro di Bella (ESA)

**SC42022\_006** - [CryoSat after 12 years in space: status and future challenges](#)

Jerome Bouffard (ESA | European Space Agency), Tommaso Parrinello (ESA | European Space Agency), Alessandro Di Bella (SERCOS c/o ESA)

**SC42022\_007** - [Using deep learning with CryoSat radar altimetry to adjust elevations and map surface penetration](#)

Alex Horton (Earthwave Ltd), Martin Ewart (Earthwave Ltd), Noel Gourmelen (Edinburgh University)

**SC42022\_008** - [Leads Detection with Fully Focused in Antarctica](#)

Sergi Hernández (isardSAT S.L.), Albert Garcia-Mondéjar (isardSAT S.L.), Ferran Gibert (isardSAT S.L.), Mònica Roca i Aparici (isardSAT S.L.)

**SC42022\_009** - [CryoTEMPO-EOLIS: Elevation Over Land Ice from Swath processing of CryoSat-2 SARIn mode data](#)

Carolyn Michael (Earthwave), Martin Ewart (Earthwave Ltd), Carolyn Michael (Earthwave), Noel Gourmelen (University of Edinburgh)

**SC42022\_010** - [SWIM: a new potential for sea-ice remote sensing](#)

Charles Peureux (CLS), Nicolas Longépé (ESA), Alexis Mouche (Ifremer), Céline Tison (CNES), Cédric Tourain (CNES), Fanny Piras (CLS), Hauser Danièle (LATMOS), Lotfi Aouf (Météo France)

**SC42022\_011** - [Automated processing of altimetry-derived river water levels at global scale - Design & first results from a new L3 processor](#)

Nicolas Bercher (QINAO SAS - AltiHydroLab.Fr)

**SC42022\_012** - [A new approach for the retrieval of lake ice thickness from satellite altimetry missions: Results from the ESA CCI+ Lakes and S6JTEX projects](#)

Anna Mangilli (CLS), Pierre Thibaut (CLS), Claude Duguay (University of Waterloo and H2O Geomatics), Justin Murfitt (University of Waterloo)

**SC42022\_013** - [Fully-Focussed iceberg detection with Sentinel-6 data and prospects for CRISTAL](#)

Juan Pedro López-Zaragoza (isardSAT SL.), Albert Garcia-Mondéjar (isardSAT SL.), Ferran Gibert (isardSAT SL.), Sergi Hernández (isardSAT SL.)

**SC42022\_014** - [CRISTAL performance assessment: an end-to-end simulation approach](#)

Albert Garcia-Mondejar (isardSAT SL.), Michele Scagliola (Aresys), Verena Lieb (Airbus Defence and Space), Enrico Mank (Airbus Defence and Space), Gorka Moyano (isardSAT SL.), Stephaine Urien (isardSAT SL.), Juan Pedro López-Zaragoza (isardSAT SL.), Lisa Recchia (Aresys), Alessio Izzo (Aresys), Noel Gourmelen (University of Edinburgh), Stefan Hendricks (AWI), Marco Fornari (ESA/ESTEC), Carlo Zelli (ESA/ESTEC), Franck Borde (ESA/ESTEC)

**SC42022\_015** - [A first assessment of swath processing for inland water](#)  
Alessandro Di Bella (Serco c/o ESA), Karina Nielsen (DTU Space), Heidi Rannal (DTU Space), Ole Andersen (DTU Space)

**SC42022\_016** - [A novel model-based retracker for sea ice covered regions](#)  
Alessandro Di Bella (Serco c/o ESA), Lisa Recchia (Aresys S.r.l.), Michele Scagliola (Aresys S.r.l.), Pietro Guccione (Aresys S.r.l.)

**SC42022\_017** - [Understanding nadir altimetry measurements over continental waters: simulations over rivers and statistical analysis of individual pulses from Sentinel altimetry missions](#)  
Sophie Le Gac (CNES), Chinaud Jordi (CNES), François Boy (CNES), Denis BLUMSTEIN (CNES, LEGOS), Jean-Alexis DAGUZE (CLS), Joseph THERY (AUTICONSULT), Céline TISON (CNES)

**SC42022\_018** - [CRISTAL – Copernicus' Next Cryosphere Altimetry Mission](#)  
Enrico Mank (Airbus Defence and Space, Friedrichshafen), Franck Borde (ESA-ESTEC, Noordwijk), Friedhelm Rostan (Airbus Defence and Space, Friedrichshafen), Yves Le Roy (Thales Alenia Space, Toulouse), Faviola Romero (Thales Alenia Space, Toulouse)

**SC42022\_019** - [AITiS Software for generating Time-Series of Water Levels from Radar Altimetry Data](#)  
Fabien Blarel (LEGOS-CNRS), Damien Allain (LEGOS), Florence Birol (LEGOS), Denis Blumstein (CNES), Robin Chevrier (LEGOS), Lucrèce DJEUMENI (Legos), Wassim Fkaier (Legos), Frederic Frappart (LEGOS), Yvan Gouzenes (LEGOS), Fabien Leger (LEGOS), Rosemary Morrow (LEGOS), Fernando Niño (LEGOS)

**SC42022\_020** - [Merging CryoSat-2 and ICESat-2 Retrievals to Advance Observations of Arctic Sea Ice](#)  
Sinead Louise Farrell (University of Maryland), Donghui Yi (NOAA Laboratory for Satellite Altimetry), Oliwia Baney (University of Maryland), Kyle Duncan (University of Maryland)

**SC42022\_021** - [Sea Ice-thickness product iNter-comparison eXerciSe – The ESA SIN'XS project](#)  
Élodie Da Silva (NOVELTIS), Christian Haas (AWI), Sara Fleury (LEGOS), Michel Tsamados (UCL), Eric Munesa (NOVELTIS), Mathis Bertin (NOVELTIS), Stefan Hendricks (AWI), Stephan Paul (AWI), Harry Heorton (UCL), Mahmoud El Hajj (NOVELTIS), Jérôme Bouffard (ESA)

**SC42022\_022** - [Sentinel-3 for Cryosphere and Hydrology](#)  
Ghita Jettou (CLS), Jérémie AUBLANC (CLS), Nicolas TABURET (CLS), Sara FLEURY (LEGOS), Sebastian BJERREGAARD SIMONSENCE (DTU), Pierre FEMENIAS (ESA - ESRIN)

**SC42022\_023** - [Innovative solutions for in-situ Cal/Val of satellite altimetry over inland waters based on UAV and new autonomous micro-gauges](#)  
Jean-Christophe Poisson (vorteX.io), Guillaume Valladeau (vorteX.io), Nicolas Picot (CNES), François Boy (CNES)

**SC42022\_024** - [Comparing elevation changes observed by CryoSat-2 and ICESat-2 over the Greenland Ice Sheet](#)  
Nitin Ravinder (University of Leeds), Andrew Shepherd (University of Leeds), Inès Otosaka (University of Leeds), Thomas Slater (University of Leeds)

**SC42022\_025** - [Sentinel-3 Land STM: New Hydrology Thematic Products performances over Inland Waters](#)  
Nicolas Taburet (CLS), Karina Nielsen (DTU), Julien Renou (CLS), Jean-François Cretaux (LEGOS/CNES), Ghita Jettou (CLS), Jérémie Aublanc (CLS), Pierre Féménias (ESA/ESRIN)

**SC42022\_026** - [Sentinel-3 Land STM: Sea Ice Thematic Products](#)  
Sara Fleury (LEGOS), Fanny PIRAS (CLS), Stefan HENDRICKS (AWI), Jérémie AUBLANC (CLS), Ghita JETTOU (CLS), Pierre FEMENIAS (ESA)

**SC42022\_027** - [STREAMRIDE: a satellite-based approach for river discharge estimation](#)  
Stefania Camici (CNR IRPI), Angelica Tarpanelli (CNR IRPI), Luca Brocca (CNR IRPI), Christian Massari (CNR IRPI), Paolo Filippucci (CNR IRPI), Karina Nielsen (Division of Geodesy, National Space Institute, Technical University of Denmark), Nico Sneeuw (Institute of Geodesy, University of Stuttgart, Geschwister-Scholl-Straße 24D, 70174 Stuttgart, Germany), Mohammad J. Tourian (Institute of Geodesy, University of Stuttgart, Geschwister-Scholl-Straße 24D, 70174 Stuttgart, Germany), Marco Restano (SERCO, ESA-ESRIN, Largo Galileo Galilei, Frascati, 00044), Jérôme Benveniste (European Space Agency, ESA-ESRIN, Largo Galileo Galilei, Frascati, 00044)

## Sentinel-6 Validation Team (S6VT) feedbacks

Session chairs: Pascal Bonnefond, Craig Donlon, Eric Leuliette, Remko Scharroo, Josh Willis

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**S6VT2022\_001** - [On the assimilation of LR and HR Sentinel-6MF wave data in wave model :  
Assesement and perspectives](#)

Lotfi Aouf (Division Marine et Océanographie Météo-France), Alice Dalphinnet (Meteo France)

**S6VT2022\_002** - [Sentinel-6 Processing Prototype data release](#)

Claire Maraldi (CNES), Salvatore Dinardo (CLS), Emeline Cadier (CLS), Adrien Guérou (CLS), Thomas Moreau (CLS), François Boy (CNES), François Bignalet-Cazalet (CNES), Nicolas Picot (CNES), Cristina Martin-Puig (EUMETSAT)

**S6VT2022\_003** - [Sentinel-6-MF Poseidon-4: Main results from the first year and half of mission from the  
S6PP LRM and HRM Chain](#)

Salvatore Dinardo (CLS), Emeline Cadier (CLS), Thomas Moreau (CLS), Claire Maraldi (CNES), Francois Boy (CNES), Adrien Guerou (CLS), Nicolas PICOT (CNES)

**S6VT2022\_004** - [Sentinel-6 MF Poseidon-4 Radar Altimeter In-Flight Calibration and Performances  
Monitoring](#)

Salvatore Dinardo (CLS), Claire Maraldi (CNES), Jean-Alexis Daguze (CLS), Samira Amraoui (CLS), Francois Boy (CNES), Thomas Moreau (CLS), Nicolas Picot (CNES)



# The Geoid, Mean Sea Surfaces and Mean Dynamic Topography

Session chairs: Ole B. Andersen, Yannice Faugere

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**GEO2022\_001** - [A new method for estimating steric mean sea surface dynamic height in MOVE system combining in-situ profiles and sea level anomalies](#)

Nariaki Hirose (Meteorological Research Institute, Japan Meteorological Agency), Norihisa Usui (Meteorological Research Institute, Japan Meteorological Agency), Yosuke Fujii (Meteorological Research Institute, Japan Meteorological Agency)

**GEO2022\_002** - [An approach for regional coastal sea surface topography for vertical datum transformation using retracked-altimetry, water level gauging and airborne gravity based geoid model](#)

Inseong Jeong (NOAA), Stephen White (NOAA)

**GEO2022\_003** - [A new combined mean dynamic topography model – DTUUh2MDT](#)

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

**GEO2022\_004** - [The new CNES-CLS 2022 marine gravity anomaly model: first validation in the Mediterranean](#)

Philippe Schaeffer (CLS), Sean Bruinsma (CNES), Franck Reinquin (CNES)

## Tides, internal tides and high-frequency processes

Session chairs: Loren Carrere, Florent Lyard, Richard Ray

**Tue, Nov 01 2022, 17:15 - 18:15 - Mezzanine**

**Thu, Nov 03 2022, 14:00 - 15:45 - Mezzanine**

**TID2022\_001** - [Investigating temporal variability in global storm surges using satellite altimetry](#)

Inger Bij de Vaate (Delft University of Technology), Cornelis Slobbe (Delft University of Technology), Martin Verlaan (Delft University of Technology)

**TID2022\_002** - [Bathymetry improvement and high-resolution tidal modelling at regional scales](#)

Mathilde Cancet (NOVELTIS), Ergane Fouchet (NOVELTIS), Etienne Sahuc (NOVELTIS), Florent Lyard (LEGOS/OMP/CNRS), Gérald Dibarboure (CNES), Nicolas Picot (CNES)

**TID2022\_003** - [Impact of the sea ice friction on ocean tides in the Arctic Ocean, modelling insights at various time and space scales](#)

Mathilde Cancet (NOVELTIS), Florent Lyard (LEGOS/OMP/CNRS), Ergane Fouchet (NOVELTIS), Johnny Johannessen (NERSC), Craig Donlon (ESA/ESTEC)

**TID2022\_004** - [Improved shallow waters tidal estimates using satellite radar altimetry data and numerical modeling.](#)

Henrique Guarneri (TU Delft), Martin Verlaan (Delft University of Technology), Cornelis Slobbe (Delft University of Technology), Zijl Firmijn (Deltares), Julie Pietrzak (Delft University of Technology), Mirjam Snellen (Delft University of Technology), Keyzer Lennart (Delft University of Technology), Yosra Afrasteh (Delft University of Technology), Roland Klees (Delft University of Technology)

**TID2022\_005** - [Sentinel-3 SAR Mode altimetry observations of wave breaking dissipation owing to large-amplitude Internal Solitary Waves: effects on SWH and radar backscatter](#)

Adriana M. Santos-Ferreira (University of Porto, Faculty of Sciences, Department of Geosciences, Environment and Spatial Planning and CIIMAR - Interdisciplinary Centre of Marine and Environmental Research), José C.B. da Silva (University of Porto, Faculty of Sciences, Department of Geosciences, Environment and Spatial Planning and Institute of Earth Sciences, Polo Porto), Jorge M. Magalhaes (CIIMAR - Interdisciplinary Centre of Marine and Environmental Research), Thomas Moreau (CLS – Collecte Localisation Satellites), Claire Maraldi (CNES - Centre national d'études spatiales), Franck Borde (ESA ESTEC – European Space Agency, European Space Technology and Research Centre), Craig Donlon (ESA ESTEC – European Space Agency, European Space Technology and Research Centre)

## Forums only contributions

### Application development for Operations

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

- [Towards 30 years of Arctic sea ice freeboard retrieval using Altimetry](#)  
Marion Bocquet (LEGOS), Sara Fleury (LEGOS), Thomas Moreau (CLS), Florent Garnier (LEGOS), Frédérique Rémy (LEGOS)

- [Global Water Monitor: Operational Monitoring of Lakes, Wetlands, and River Reaches for Natural Hazards and Regional Security](#)

Martina Ricko (KBR at NASA/GSFC), Charon Birkett (NASA/GSFC), Xu Yang (KBR at NASA/GSFC), Curt Reynolds (USDA/FAS), Elias Deeb (ERDC/USACE)

- [A new open-source gridded altimetric product](#)  
Lilly Jonathan (Planetary Science Institute)

## CFOSAT

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

- [CFOSAT data over sea ice areas](#)

Fanny Girard-Ardhuin (Ifremer/LOPS), Jean-François Piolle (Ifremer/LOPS), Perrine Abjean (Ifremer/LOPS)

- [Ocean wave fields under tropical cyclone conditions as evidenced by SWM/CFOSAT](#)

Eva Le Merle (CNR-ISMAR), Daniele Hauser (LATMOS (CNRS, UVSQ, Sorbonne Université)), R Santoleri (CNR-ISMAR), C Yang (CNR-ISMAR)

- [A novel sea state classification scheme based on global CFOSAT wind and wave observations](#)

Huimin Li (School of Marine Sciences, NUIST), Bertrand Chapron (LOPS, IFREMER), Douglas Vandemark (Ocean Processes Analysis Laboratory, University of New Hampshire), Chen Wang (School of Marine Sciences, NUIST), Justin Stopa (Department of Ocean and Resources Engineering, University of Hawaii at Manoa), Wenming Lin (School of Marine Sciences, NUIST), Biao Zhang (School of Marine Sciences, NUIST), Yijun He (School of Marine Sciences, NUIST)

- [Surface Measurements for Oceanographic Satellites: the SUMOS in-situ and airborne campaign](#)

Cédric Tourain (CNES), Raquel Rodriguez-Suquet (CNES), Danièle Hauser (LATMOS), Lotfi Aouf (Météo-France), Peter Sutherland (Ifremer), Louis Marié (Ifremer)

## Coastal Altimetry

**Session chairs:** Florence Birol, Mathilde Cancet, Marcello Passaro, Ted Strub

## 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

- [Performance evaluation of the Amplitude Compensation and Dilation Compensation retracking algorithm](#)

S.L.) Alba Granados (isardSAT S.L.), Mònica Roca i Aparici (isardSAT S.L.), Chris Ray (isardSAT

## Instrument Processing: Propagation, Wind Speed and Sea State Bias

**Session chairs:** Shannon Brown, Estelle Obligis

- [SSB model comparison from different measurement modes](#)

Ngan Tran (CLS), François Bignalet-Cazalet (CNES), Gerald Dibarboure (CNES), Claire Maraldi (CNES), François Boy (CNES), Pierre Féménias (ESA), Bruno Lucas (EUMETSAT)

## **Outreach, Education and Altimetric Data Services**

**Session chairs:** Jack McNeilis, Vinca Rosmorduc, Margaret Srinivasan



## Precision Orbit Determination

**Session chairs:** Sean Bruinsma, Alexandre Couhert, Frank Lemoine

- [Sentinel 6 radiation pressure model analysis](#)

Flavien Mercier (cnes), John Moyard (cnes), Alexandre Couhert (cnes), Robert Cullen (esa)

## Quantifying Errors and Uncertainties in Altimetry data

**Session chairs:** Michael Ablain, Joel Dorandeu, Remko Scharroo

## 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

- [Preliminary results from GNSS processing at the Southern Ocean SOFS site in preparation for SWOT validation](#)

Andrea HAY (University of Tasmania and CSIRO), Christopher WATSON (University of Tasmania), Benoit LEGRESY (CSIRO), Matt KING (University of Tasmania)

- [Altimeter validation results from the Bass Strait validation facility, Australia](#)

Benoit LEGRESY (CSIRO Climate Science Centre, Oceans and Atmosphere, Hobart, Australia. and Integrated Marine Observing System, Hobart, Australia.), Christopher WATSON (School of Geography, Planning, and Spatial Sciences, University of Tasmania, Hobart, Australia. and Integrated Marine Observing System, Hobart, Australia.), Jack BEARDSLEY (Integrated Marine Observing System, University of Tasmania, Hobart, Australia.), Arthur ZHOU (School of Geography, Planning, and Spatial Sciences, University of Tasmania, Hobart, Australia.), Matt KING (School of Geography, Planning, and Spatial Sciences, University of Tasmania, Hobart, Australia.)

- [CWPIES, a shallow water current, waves and pressure inverted echo sounder for higher resolution satellite altimetry calibration and validation.](#)

Benoit LEGRESY (CSIRO Climate Science Centre, Oceans and Atmosphere, Hobart, Australia. and IMOS, Australia's Integrated Marine Observing System), Christopher WATSON (School of Geography, Planning, and Spatial Sciences, University of Tasmania, Hobart, Australia. and IMOS, Australia's Integrated Marine Observing System), Arthur ZHOU (School of Geography, Planning, and Spatial Sciences, University of Tasmania, Hobart, Australia.)

- [A Kalman-based approach to simultaneously estimate vertical land motion and altimeter-specific systematic errors using altimeter, tide gauge, and GPS measurements](#)

Mohammad-Hadi Rezvani (School of Geography, Planning, and Spatial Sciences, University of Tasmania), Christopher Watson (School of Geography, Planning, and Spatial Sciences, University of Tasmania), Matt King (School of Geography, Planning, and Spatial Sciences, University of Tasmania)

- [Along track analysis of a GNSS/INS buoy array in the context of Sentinel-6 and future SWOT altimetry validation at the Bass Strait facility](#)

Boye Zhou (School of Geography, Planning, and Spatial Sciences, University of Tasmania), Watson Christopher (School of Geography, Planning, and Spatial Sciences, University of Tasmania), Legresy Benoit (Oceans and Atmosphere, Climate Science Centre, Commonwealth Scientific and Industrial Research Organisation), King Matt (School of Geography, Planning, and Spatial Sciences, University of Tasmania), Jack Beardsley (Integrated Marine Observing System, Hobart, Tasmania)

## Science I: Climate data records for understanding the causes of global and regional sea level variability and change

**Session chairs:** Benjamin Hamlington, Benoit Meyssignac

- [The causes of the sea level trend in the Southwestern Atlantic Continental Shelf](#)

Melina Gisel Rios (Dpto. de Física, Universidad Nacional del Sur), Laura Agustina Ruiz Etcheverry (CONICET – Universidad de Buenos Aires, Centro de Investigaciones del Mar y la Atmósfera (CIMA). Buenos Aires, Argentina)

## Science II: Large Scale Ocean Circulation Variability and Change

**Session chairs:** Weiqing Han, Thierry Penduff, LuAnne Thompson

- [Seasonal Variation in the Effective Depth of Air-Sea Interaction](#)  
Jacob Cohen (University of Washington), LuAnne Thompson (University of Washington)
- [Model analysis of barotropic Rossby waves radiated from Tropical Instability Waves](#)  
Ted Durland (Oregon State University), Tom Farrar (Woods Hole Oceanographic Institution)
- [Equatorial waves across the Pacific \(and Indian and Atlantic\)](#)  
Tom Farrar (Woods Hole Oceanographic Institution), Ted Durland (Oregon State University)
- [Hydrological cycle of the Mediterranean-Black Sea system](#)  
David Garcia-Garcia (University of Alicante), Isabel Vigo (University of Alicante), Mario Trottini (University of Alicante), Juan Vargas (University of Alicante), Juan-Manuel Sayol (University of Alicante)
- [Climate-driven sea level extremes and marine heatwaves in coastal Indonesia](#)  
Weiqing Han (The University of Colorado)
- [Using coastal altimetry to improve Meridional Overturning Circulation estimates in the South Atlantic](#)  
Matthieu Le Henaff (Univ. of Miami/CIMAS - NOAA/AOML), Marion Kersale (Univ. of Miami/CIMAS - NOAA/AOML), Christopher Meinen (NOAA/AOML), Renellys Perez (NOAA/AOML), Florence Birol (LEGOS), Marcello Passaro (Deutsches Geodätisches Forschungsinstitut TUM), Christian Schwatke (Deutsches Geodätisches Forschungsinstitut TUM), Maria Paz Chidichimo (Servicio de Hidrografía Naval), Daniel Valla (Servicio de Hidrografía Naval), Alberto Piola (Servicio de Hidrografía Naval), Tarron Lamont (Department of Forestry, Fisheries and the Environment), Isabelle Ansorge (University of Cape Town), Sabrina Speich (Ecole Normale Supérieure)
- [Indian Ocean Dipole leads to Atlantic Niño](#)  
Lei Zhang (University of Colorado Boulder), Weiqing Han (University of Colorado Boulder)

## Science III: Mesoscale and sub-mesoscale oceanography

**Session chairs:** Lee-Lueng Fu, Rosemary Morrow, Heather Roman-Stork, Clément Ubelmann, Jinbo Wang

- [Global assessment of mesoscale eddies with TOEddies; Comparison between multi-datasets and co-location with in-situ measurements](#)

Artemis Ioannou (Laboratoire de Météorologie Dynamique, LMD-IPSL, Ecole Normale Supérieure ENS-PSL, Paris), Rémi Laxenaire (Laboratoire de Météorologie Dynamique, Paris / LACy, Laboratoire de L'Atmosphère et des Cyclones, UMR 8105 CNRS, Université de La Réunion, Météo-France, Saint-Denis), Sabrina Speich (Laboratoire de Météorologie Dynamique, LMD-IPSL, Ecole Normale Supérieure ENS-PSL, Paris)

- [Steric height contribution to intraseasonal sea surface height in the Southwestern Atlantic](#)

Laura Ruiz-Etcheverry (CIMA/CONICET-UBA), Melina Martinez (CIMA/CONICET-UBA), Martin Saraceno (CIMA/CONICET-UBA)

- [seasonality of the mesoscale sea surface variability from multi-year satellite altimetry](#)

Yao Yu (UCSD), David Sandwell (UCSD), Sarah Gille (UCSD)

## Science IV: Altimetry for Cryosphere and Hydrology

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

- [Understanding the behavior of altimetric measurements of Laser and Ku-band over sea-ice](#)

Alice Carret (SERCO), Antoine Laforge (Mercator), Sara Fleury (LEGOS), Jérôme Bouffard (ESA), Alessandro Di Bella (ESA)

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

Sophie Le Gac (CNES), Simon Boitard (NOVELTIS), Denis Blumstein (CNES/LEGOS), Malik Boussaroque (HydroMatters/LEGOS), François Boy (CNES), Nicolas Picot (CNES), Pierre Féménias (ESA/ESRIN)

## Sentinel-6 Validation Team (S6VT) feedbacks

**Session chairs:** Pascal Bonnefond, Craig Donlon, Eric Leuliette, Remko Scharroo, Josh Willis

- [Assessment of Sentinel 6 altimeter data along the Northwest Atlantic shelf](#)

Hui Feng (University of New Hampshire), Doug Vandemark (University of New Hampshire),  
Alejandro Egido (NOAA – Laboratory for Satellite Altimetry)



# The Geoid, Mean Sea Surfaces and Mean Dynamic Topography

Session chairs: Ole B. Andersen, Yannice Faugere

## Tides, internal tides and high-frequency processes

**Session chairs:** Loren Carrere, Florent Lyard, Richard Ray

- [Frequency dependence of ocean surface kinetic energy and its vertical structure from global high-resolution models and surface drifter observations](#)

Brian Arbic (University of Michigan), Shane Elipot (University of Miami), Jonathan Brasch (University of Michigan), Dimitris Menemenlis (NASA JPL), Aurelien Ponte (IFREMER), Jay Shriver (Naval Research Laboratory), Xiaolong Yu (IFREMER), Edward Zaron (Oregon State University), Matthew Alford (Scripps Institution of Oceanography), Maarten Buijsman (University of Southern Mississippi), Ryan Abernathy (Columbia University), Daniel Garcia (University of Michigan), Lingxiao Guan (University of Michigan), Paige Martin (University of Michigan), Arin Nelson (University of Michigan)

- [TPXO9v2 and TPXO9-atlas-v5: two new global barotropic tide models](#)

Svetlana Erofeeva (Oregon State University)

- [Impact of Remote Internal Waves on Internal Wave Energetics of Regional Model Simulations](#)

Oladeji Siyanbola (University of Southern Mississippi), Maarten Buijsman (University of Southern Mississippi), Roy Barkan (Tel Aviv University), Lionel Renault (University of California, Los Angeles), Brian Arbic (University of Michigan)

- [Experiments computing highly-resolved sea level spectra from dual-satellite altimetry](#)

Edward Zaron (Oregon State University)

- [Development of the yearly mode-1 M2 internal tide model in 2019](#)

Zhongxiang Zhao (University of Washington)

- [Satellite estimates of Mode-1 M2 Internal Tides using non-repeat altimetry missions](#)

Zhongxiang Zhao (University of Washington), Maarten Buijsman (University of Southern

Mississippi)

- [Seasonal variability of internal tides in the global ocean](#)

Harpreet Kaur (University of Southern Mississippi), Maarten Buijsman (University of Southern

Mississippi)