

OBJECTIVES OF THE WORKSHOP

(7-10 FEBRUARY 2023)

- Review of the science and applications of coastal altimetry, from data processing through emerging applications to new technologies.
- Review studies using the latest missions (Sentinel-6 Michael Freilich, Sentinel-3A/B, CryoSat-2, CFOSAT, HY-2, AltiKa and Jason-3) and the future SWOT mission.
- Discuss Sea Level, Dynamic Topography, Currents, Winds and Waves, Sea State, Extreme Events, etc., exploiting altimetry and other data for both real-time monitoring and long-term change studies and discuss products for operationalisation.
- Collect requirements from users to stimulate the improvement of current applications and shaping future ones, space-borne and in situ products, models, and consolidate the recurring requirements for a Global Coastal Altimetry Product Standard.

PARTICIPATION AND ABSTRACT SUBMISSION

- Authors are kindly invited to submit abstract(s) (up to 500 words) by 15 November 2022.
- The working language of the Workshop is English.
- No participation/registration fee will be charged.
- Participants are expected to finance their own travel and accommodation expenses.
- Papers will be selected by the Scientific Committee on the basis of their content and relevance to the themes of the workshop.
- Authors will be notified of the decision and the type of presentation (oral or poster) by 13 December 2022.

Presentations given at the workshop will be published on the workshop website: www.coastalaltimetry.org

ORGANISING COMMITTEE

Ana Aldarias (U. of Cadiz, Spain)
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CONTACTS

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VENUE

The 13th Coastal Altimetry Workshop will take place at the Universidad de Cádiz, Spain.

Location Address:
Facultad de Filosofía y Letras
Av. Dr. Gómez Ulla, 1 - 11003 Cádiz, Spain

www.coastalaltimetry.org



13th COASTAL ALTIMETRY WORKSHOP & COASTAL ALTIMETRY TRAINING

6–10 February 2023 | Universidad de Cádiz, Spain

OBJECTIVES OF THE TRAINING COURSE

(6 FEBRUARY 2023)

- Introduce altimetry missions and technologies to a non-expert audience.
- Present applications for oceanography and discuss challenges in coastal zone altimetry.
- Provide a description of existing altimetry datasets.
- Present toolboxes and online processing platforms.



THEMES OF THE WORKSHOP

Technical Issues in Coastal Altimetry:

- New satellite missions (Sentinel-6 MF and CFOSAT), the future SWOT mission and processing schemes (FF-SAR) & datasets.
- Progress on waveform modelling and retracking.
- Sea State Bias correction in coastal regions & improvements in other corrections.
- Performance assessment of coastal altimetry, calibration and validation of coastal altimetry data and inter-calibration amongst various missions.

Applications of Coastal Altimetry Data:

- Use of data from the various data providers and/or reprocessing initiatives such as SL_cci, SS_cci, CTOH, ALES/ALES+, REAPER, PEACHI, EarthConsole@ SARvatore Altimetry Virtual Lab, Baltic+ SEAL, HYDROCOASTAL, FF-SAR for Coastal Zone and others from NASA/NOAA and other worldwide space or funding agencies.
- Possible applications comprise coastal sea level variations, coastal sea state & sea level interactions, coastal currents, coastal wave field, storm surge research, interaction between inland water discharge and coastal sea level at estuaries and 2D Altimetry in the coastal zone from SWOT.
- Assimilation of data in coastal dynamics and storm surge models.

LESSONS

ALTIMETRY: PRINCIPLES, ISSUES AND PROGRESSES IN THE COASTAL ZONE

- Altimetry Principles
- Advanced Altimetry

ONLINE PROCESSING PLATFORMS & TOOLBOXES

- Earth Console SARvatore Altimetry Virtual Lab demonstrations
- BRAT demonstration

DATASETS FOR COASTAL ALTIMETRY

- Sea Level_cci+ going coastal (ALES, X-TRACK)
- The Baltic+ SEAL dataset
- The HYDROCOASTAL dataset
- FF-SAR for coastal zone dataset

FIELDS OF APPLICATION FOR COASTAL ALTIMETRY

- Coastal Circulation and Currents
- Coastal Wave Climate and Storm Surges
- Synergy and Validation with Tide Gauges
- Synergy with Models

Synergistic, Climate Studies & Operationalisation:

- Synergies of coastal altimetry with in-situ, model and other satellite data (including SAR, SST and ocean colour).
- Integration of coastal altimetry data into coastal observing systems.
- Investigation of climate-scale variations of sea level and sea state in the coastal zone.
- Endeavours aiming at reaching a consensus on a coastal zone product for operationalisation.

DEADLINES

Deadline for abstract submission (both for oral and poster presentations)	15 November 2022
Notification to authors	13 December 2022
Publication of preliminary programme	13 December 2022
Deadline for registration to the Coastal Altimetry Training Course (free of charge)	8 January 2023

