

National Oceanography Centre









→ 6th COASTAL ALTIMETRY WORKSHOP

20-21 September 2012 | Riva del Garda, Italy

PROGRAMME

DAY 1 20 SEPTEMBER 2012

08:00-08:30 Registration

- 08:30 Opening Session | Chairs: Jérôme Benveniste (ESA/ESRIN), Paolo Cipollini (NOC)
- 08:30-08:45 Welcome & Introduction | *Jérôme Benveniste, European Space Agency*
- 08:45-09:10 Invited Talk: An Overview of the Cosmo-SkyMed Mission and its Main Applications | Alessandro Coletta, ASI, Italy

09:10 Session 1: The New Coastal Altimetry Data | Chairs: Jessica Hausman (JPL), Martín Saraceno (Univ. Buenos Aires)

- 09:10-09:30 CTOH Studies on Regional Altimetry in 2011/2012 | Florence Birol, CTOH/OMP, France
- 09:30-09:50 Level-3 Coastal Sea Level Anomalies from PISTACH Products | Claire Dufau, CLS, France
- 09:50-10:10 CryoSat Processing Prototype, LRM and SAR Processing on CNES Side and a Comparison to DUACS SLA | François Boy, CNES, France

10:10-10:20 Discussion

10:20-10:50 Coffee Break

- 09:10 Applications of Coastal Altimetry | Chairs: Joana Fernandes (Univ. Porto), John Wilkin (Rutgers Univ.), Soma Yenamandra (NIO)
- 10:50-11:10 Sub-Mesoscale Circulation Features off Perth, WA, as Seen by HF Radar, Altimetry and Imagery | David Griffin, CSIRO, Australia
- 11:10-11:30 Comparing In Situ Current Data with Current Anomalies Derived from the PISTACH Products: the Agulhas Current | Mathilde Cancet, NOVELTIS, France
- 11:30-11:50 Satellite Altimetry of Inland Water Bodies in Turkmenistan | Andrey G. Kostianoy, P.P. Shirshov Institute of Oceanology, Russia
- 11:50-12:10 Coastal and Arctic Marine Gravity from Cryosat and Jason-1 Geodetic Mission Altimetry | Ole B. Andersen, DTU Space, Denmark
- 12:10-12:30 Observations of Storm Surges by Satellite Altimetry: Hurricane Igor off Newfoundland | Guoqi Han, Fisheries and Oceans, Canada
- 12:30-12:50 Estimation of Extreme Sea Levels from Altimetry and Tide Gauges at the Coast | Xiaoli Deng, The University of Newcastle, Australia

12:50-13:10 Discussion

13:10-14:40 Lunch

- 14:40 Session 3: Synergy with Models | Kaoru Ichikawa (Kyushu Univ.), Villy Kourafalou (Univ. Miami) 14:40-15:00 Invited Talk: Contributions of Coastal Altimetry to the GODAE/OceanView Coastal and Shelf Seas activities Villy Kourafalou, RSMAS, University of Miami, United States 15:00-15:20 SSH Variability Along the US West Coast in Winter | Alexander Kurapov, CEOAS, Oregon State University, USA 15:20-15:40 Coastal Mean Dynamic Topography Computed Using ROMS Variational Assimilation of Long-Term Mean Observed Currents and Hydrography John Wilkin, Rutgers, The State University of New Jersey, USA 15:40-16:00 State Estimates and Forecasts in the Gulf of Mexico | Ganesh Gopalakrishnan, Scripps Institution of Oceanography, USA 16:00-16:10 Discussion 16:10-16:40 Coffee break 16:40 **Session 4: Corrections** | Chairs: Ole Andersen (DTU), Lifeng Bao (Chinese Acad. Sciences) 16:40-17:00 An inter-Comparison Between Algorithms for Wet Path Delay Retrieval in the Coastal Regions M. Joana Fernandes, Univ. Porto, Fac. Ciências & CIMAR LA, CIIMAR-UP, Portugal A Specific Coastal Wet Tropospheric Correction for the Envisat RA2 Altimeter | Estelle Obligis, CLS, France 17:00-17:20
- 17:20-17:40 Comparison of Recent Ocean Tide Models in the China Seas | Li Dawei, Wuhan University, China

17:40-17:50 Discussion

17:50-20:00 Poster Session + Cocktail

DAY 2 **21 SEPTEMBER 2012** THURSDAY FRIDAY 08:30 Session 5: LRM Retracking | Chairs: Xiaoli Deng (Univ. Newcastle), Luciana Fenoglio-Marc (TU Darmstadt) 08:30-08:50 Assessing the Transition from Open-Ocean to Coastal Retracking Algorithms | Paolo Cipollini, National Oceanography Centre, UK 08:50-09:10 The Coastal Waveform Retracking Using Fuzzy Expert System Approach | Nurul Idris, The University of Newcastle, Australia Adaptive Retracking of Jason-1 Altimetry Data for Inland Waters on the Example of the Volga Reservoirs | Yuliya Troitskaya, 09:10-09:30 Institute of Applied Physics RAS, Russian Federation 09:30-09:50 Improved Retrieval of Altimetry Heights in Coastal and Sea Ice-Covered Region via Waveform Modification and Retracking Kuo-Hsin Tsena. Ohio State University. USA Using HF Radar Coastal Currents to Correct Satellite Altimetry | Carolyn Roesler, University of Colorado, USA 09:50-10:10 10:10-10:20 <u>Di</u>scussion 10:20-10:50 Coffee break 10:50 Session 6: Waveform Analysis and SAR Retracking | Chairs: Jesus Gómez-Enri (Univ. Cadiz), Walter Smith (NOAA) 10:50-11:10 Pulse-Pair (Doppler) Processing of Envisat Individual Echoes | Ron Abileah, jOmegak, USA 11:10-11:30 Echo to Echo Correlation and Time Alignment in CryoSat FBR SAR Data: Implication for Range and SWH from Coastal SAR Data Walter H F Smith, NOAA, USA

- 11:30-11:50 Land Contamination in SAR Mode in Coastal Zone and In Calm Waters | Salvatore Dinardo, SERCO/ESRIN, Italy
- 11:50-12:10 CryoSat-2 SAR Waveform Retracking Over the Ocean: Does Multilooking Distort the Leading Edge? | David Sandwell, Scripps Institution of Oceanography, USA
- 12:10-12:30 Coastal Altimetry: Evolution of Measurement and Retracking Problems when Switching from Conventional (Ku, Ka) to SAR Altimetry | Pierre Thibaut, CLS, France

DAY 2	21 SEPTEMBER 2012 THURSDAY FRIDAY		
12:30-12:40	Discussion		
12:40-14:00	Lunch		
14:00 14:00-14:20 14:20-14:40 14:40-15:00	Stelios Mertikas, Technical University of Crete, Greece A Study on the Conformance of Altimetry and In-Situ Sea Surface Data near Coast in the German Bight Luciana Fenoglio-Marc, Technical University Darmstadt, Germany		
15:00-15:10	Discussion		
15:10 15:10-15:30 15:30-15:50 15:50-16:10	Session 8: Future Data and Missions Chairs: David Griffin (CSIRO), Andrey Kostianoy (P.P. Shirshov Inst.) The Future of PISTACH for 2013-2015 Emilie Bronner, CNES, France The Surface Water / Ocean Topography Mission (1): Capabilities for Coastal Oceanography Philip Callahan, Jet Propulsion Laboratory, USA Current Status of the Japanese Altimetry Mission Akihisa Uematsu, Japan Aerospace Exploration Agency (Jaxa), Japan		
16:10-16:30	Discussion		
16:30-17:00	Coffee break		

17:00-18:30 Summary from Session Chairs, Discussion, Recommendations, Roadmap and Conclusions

POSTER SESSION + COCKTAIL - SCHEDULED ON THURSDAY [17:50 TO 20:00]

FES 2012: A New Tidal Model Taking Advantage of Nearly 20 Years of Altimetry Measurements	Carrere, Loren	CLS,France
Continental Shelf Dynamics from Coastal Altimetry in the Bay of Biscay	Charria, Guillaume	IFREMER, France
The Use of Coastal Altimetry to Support Storm Surge Studies in Project eSurge	Cipollini, Paolo	National Oceanography Centre, UK
Cryosat Plus For Oceans - User Consultation	Cotton, David	SatOC, UK
Retracking of Altimeter Waveforms over the Prince William Sound	Deng, Xiaoli	The University of Newcastle, Australia
The GMES Sentinel-3 Mission	Donlon, Craig	ESA/ESTEC
The GMES Sentinel-3 Topography Mission	Donlon, Craig	ESA/ESTEC
Regional Assessment of Altimetry Products in the NW Mediterranean: Comparisons to In-Situ Data and Model Outputs.	Dussurget, Renaud	IFREMER, France
Characterizing Spatiotemporal Variability in Altimeter-Derived Ocean Currents on the Coastal NW Atlantic Shelf	Feng, Hui	University of New Hampshire, UK
Comparison of Altimetric Datasets Near the US West Coast	Hausman, Jessica	JPL/Caltech, USA
Performance Evaluation of Traditional and Improved Waveform Retrackers for Processing Cryosat2 Data.	Jain, Maulik	DTU Space/National Space Institute, Denmark
Flood Wave Propagation Model of the Caspian Sea Based on Satellite Altimetry Data	Lebedev, Sergey	Geophysical Center of the Russian Academy of Sciences, Russian Federal

POSTER SESSION + COCKTAIL - SCHEDULED ON THURSDAY [17:50 TO 20:00]

Interannual Variability of the Black Sea Level basing on the Radar Altimetry	Lebedev, Sergey	Geophysical Center of the Russian Academy of Sciences, Russian Federal
Trajectory of Giant Jellyfish by Satellite Altimetry Data	Morimoto, Akihiko	Nagoya University, Japan
Validation of the Sea Level Simulated by MRI.COM-JPN, a Japan Coastal Ocean Model	Ogawa, Koji	Meteorological Research Institute, Japan
Small Scale Storm Variability and Satellite Altimeter Data	Reale, Ferdinando	CUGRI, Italy
Evaluation Of CTOH New Along-track Tidal Constants Database For Dealiasing Coastal Altimetry Over The North-West European Continental Shelf	Roblou, Laurent	CNRS/LEGOS, France
Seasonal Sea Level Anomaly Patterns over Argentine Continental Shelf	Ruiz Etcheverry, Laura	DCAO/CIMA, Argentina
Towards Assimilation of Satellite Altimetry Products Into a Storm-Surge Model Ensemble Along the Argentine Coast	Saraceno, Martin	CIMA/CONICET-UBA, Argentina
On the Accuracy of Satellite Altimetry Data over Continental Shelves: a Case study in Southeastern South AmericaComparisons to In-Situ Data and Model Outputs.	Saraceno, Martin	CIMA/CONICET-UBA, Argentina
Classifying Radar-Echos of Envisat Altimeter Data for an Optimized Retracking	Schwatke, Christian	DGFI, Germany
A 20-Year Satellite Climatology of Ocean Circulation in the Northern Indian Ocean	Strub, Ted	Oregon State University, USA
Examples of Pulse-Pair (Doppler) Processing of Envisat Individual Echoes in Coastal and Inland Waters	Vignudelli, Stefano	CNR, Italy
A Multi-Peak Waveform Retracker for Coastal Altimetry	West, Luke	National Oceanography Centre, UK

	DAY 1 Thursday 20 September 2012	DAY 2 Friday 21 September 2012		
08:00 - 08:30	Registration			
08:30 - 08:45	Welcome and Introduction	08:30 - 10:20	Session 5: LRM Retracking	
08:45 - 09:10	Invited Talk			
09:10 - 10:20	Session 1: The New Coastal Altimetry Data			
10:20 - 10:50	Coffee Break	10:20 - 10:50	Coffee Break	
10:50 - 13:10	Session 2: Applications of Coastal Altimetry	10:50 - 12:40	Session 6: Waveform Analysis and SAR Retracking	
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14:40 - 16:10	Session 3: Synergy with Models	14:00 - 15:10	Session 7: CAL/VAL	
		15:10 - 16:30	Session 8: Future Data and Missions	
16:10 - 16:40	Coffee Break	16:30 - 17:00	Coffee Break	
16:40 - 17:50	Session 4 : Corrections	17:00 - 18:30	Summary from Session Chairs, Discussion, Recommendations, Roadmap and Conclusions	
17:50 - 20:00	Poster Session + Cocktail			