

“Understanding the relationship between coastal sea level and large-scale ocean circulation”

ISSI Workshop Programme, 5-9 March 2018

Monday, 5 March 2018		
Time	Topic	Speaker
12:30-13:30	Registration in ISSI, Hallerstrasse 6, 1 st floor	
13:30-13:45	Welcome and Introducing ISSI	Anny Cazenave (ISSI)
13:45-14:00	Objectives of the Workshop	Benoît Meyssignac (LEGOS)
Session 1: Introductory session		Chairperson: Detlef Stammer
14:00-14:30	Sea level rise at global scale	Benoît Meyssignac (LEGOS)
14:30-15:00	Regional sea level change; contribution from thermal expansion	Catia Domingues (Univ. Tasmania)
15:00-15:30	Sea level rise projections at global and regional scales	Mark Carson (UoH)
15:30-16:00	Interactions between large-scale ocean dynamics and sub-mesoscale processes; impacts on coastal sea level	Tal Ezer (Old Dominion Univ.)
16:00-16:30	<i>Coffee Break</i>	
16:30-17:00	Forcing factors causing sea level changes in the coastal zone	Phil Woodworth (NOC)
17:00-17:30	Observed changes of coastal sea level	Marta Marcos (IUB)
17:30-18:00	Knowns and unknowns about past and future influence of climate modes on coastal sea level	Weiqing Han (Univ, Colorado)
18:00	<i>Welcome Reception</i>	

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Tuesday, 6 March 2018		
Time	Topic	Speaker
Session 2: Interactions between the large-scale and small-scale (eddy, wave) circulations and their impacts on the coastal zone sea level at seasonal to multi-decadal time scales (observations and modelling)		Chairperson: Rui Ponte
9:00-9:30	Propagation of coastal trapped wave and impact on coastal sea level (e.g. west coast of Australia, east coast of India, western coast of Europe, eastern boundary regions including upwelling systems)	Keith Thompson (Dalhousie Univ.) Presentation made by Rui Ponte
9:30-10:00	Open ocean vs. coastal sea level in regions of strong western boundary currents and eddy fields (including relative effects of interior vs. along boundary effects)	Shoshiro Minobe (Hokaido Univ.)
10:00-10:30	High latitudes and influence of boundary-trapped waves	Ichiro Fukumori (JPL)
10:30-11:00	<i>Coffee Break</i>	
11:00-11:30	Influence of the intrinsic ocean variability on the coastal sea level	Thierry Penduff (Univ. Grenoble)
11:30-12:30	General discussion	All participants
12:30-14:00	<i>Lunch Break</i>	
Session 3: Forcing agents at work in the coastal zones and their impact on coastal sea level		Chairperson: Catia Domingues
14:00-14:30	Role of wind and atmospheric pressure on sea level variability on shelves	Christopher Piecuch (WHOI)
14:30-15:00	Role of river run-off on coastal sea level variability	Fabien Durand (LEGOS)
15:00-15:30	Coastal tides in a changing climate	Richard Ray (NASA/GSFC)
15:30-16:00	Effect of waves setup and runup on coastal sea level	Angélique Melet (MERCATOR)
16:00-16:30	<i>Coffee Break</i>	
16:30-17:00	The GODAE OceanView COSS-TT: towards seamless transition from large-scale ocean forecasting to the coastal scales	Mauro Cirano (Univ. Rio de Janeiro)
17:00-18:00	General discussion	All participants

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Wednesday, 7 March 2018		
Time	Topic	Speaker
Session 3: Forcing agents at work in the coastal zones and their impact on coastal sea level (continued)		Chairperson: Lee-Lueng Fu
9:00-9:30	Distant source wind-waves and coastal sea level	Fabrice Ardhuin (IFREMER)
9:30-10:00	Impact of bathymetry on coastal circulation	Chris Hughes (Univ. Liverpool)
10:00-10:30	General discussion	All participants
10:30-11:30	<i>Coffee Break</i>	
Session 4: Impacts of internal climate variability (climate modes: ENSO, AMO, PDO, IPO, SAM, IOD, AMV, etc.) on coastal sea level		Chairperson: Stephen Griffies
11:30-12:00	Quantification of open ocean vs. coastal sea level variance related to different climate modes, as function of region and timescale	Xuebin Zhang (CSIRO)
12:00-12:30	What are specific local and remote processes causing coastal sea level variability related to climate modes	Phil Thompson (Univ. Hawaii) (withdrawn)
12:30 -14:00	<i>Lunch Break</i>	
14:00-14:30	Possible future changes in climate mode behavior and impact on coastal sea level	Detlef Stammer (UoH)
14:30-15:00	General Discussion	All participants
Session 5: Observations of coastal sea level; characterisation, uncertainties, improvements		Chairperson Phil Woodworth
15:00-15:30	Vertical land movement from observations (GNSS, InSAR & altimetry minus tide gauges)	Guy Woppelmann (LIENSs)
15:30-16:00	Ocean bottom pressure, SST, SSS, ... & other ancillary data in the coastal zone	Rui Ponte (AER)
16:00-16:30	<i>Coffee Break</i>	
16:30-17:00	General discussion or free time	All participants
19:00	<i>Dinner hosted by ISSI</i>	

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Thursday, 8 March 2018		
Time	Topic	Speaker
Session 5: Observations of coastal sea level; characterisation, uncertainties, improvement (continued)		Chairperson: Anny Cazenave
09:30-10:00	Sea level measurement in the coastal zone from satellite altimetry; current problems and perspectives	Stefano Vignudelli (CNR)
10:00-10:30	Coastal altimetry: impact of geophysical corrections near the coast	Florence Birol (LEGOS)
10:30-11:00	<i>Coffee Break</i>	
11:00-11:30	Coastal altimetry: perspective from new altimetry missions (SAR altimetry on Cryosat-2 and Sentinel-3)	Jérôme Benveniste (ESA)
11:30-12:00	Coastal altimetry: perspective from new altimetry missions (SWOT)	Lee-Lueng Fu (JPL)
12:00-14:00	<i>Lunch Break</i>	
Session 6: Coastal (absolute and relative) sea level projections		Chairperson: Benoît Meyssignac
14:00-14:30	Future coastal dynamic sea level in response to GHG emissions: Do high resolution climate models show a different response from open –ocean sea level response	Stephen Griffies (GFDL)
14:30-15:00	Uncertainty in future coastal sea level due to climate model error associated with the uncertainty in the parametrization of mesoscale eddies	Laure Zanna (Oxford Univ.)
15:00-15:30	Uncertainties on ice sheet dynamics evolution and future global mean sea level rise, impact on coastal sea level	Roderik van de Wal (Utrecht Univ.)
15:30-16:00	Future coastal sea level rise due to deep ocean expansion and shelf mass loading	Kristin Richter (Univ. Innsbruck)
16:00-16:30	<i>Coffee Break</i>	
16:30-17:00	Probabilistic projections at the coast	Svetlana Jevrejeva (NOC)
17:00-17:30	Effect of internal climate variability on coastal sea level projections	Mélanie Becker (Univ. La Rochelle)
17:30-18:00	Coastal sea levels altered by interactions processes between sea-level rise, tides, storm surges, waves and flooding	Deborah Idier (BRGM)

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Friday, 9 March 2018		
Time	Topic	Speaker
<i>Session 7: General discussion; Recommendations for future improvements in terms of observations and modeling</i>		<i>Chairperson: R. van de Wal</i>
9:00-10:00	General discussion; Recommendations	All participants
10:00-10:30	Preparation of the Special Issue for the Survey in Geophysics journal: Definition of overview articles and authorship	All participants
10:30-11:00	<i>Coffee Break</i>	
11:00-12:00	Preparation of the Special Issue for the Survey in Geophysics journal: Definition of overview articles and authorship	All participants

End of meeting