

Sea Level Research Workshop

"Sea-Level Change: Earth System Feedbacks"

Bjerknes Center for Climate Research (BCCR), Bergen, Norway – 12th October 2020 Jahnebakken 5 - 4th floor

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Agenda

09:30 – 10:00	Coffee and Registration
10:00 - 10:10	Welcome and Introduction (A. Bonaduce, NERSC)
10:10 – 10:30	Overview/State of the Art/Questionnaire Outcomes (A. Bonaduce, NERSC)
10:30 – 11:00	Session 1: Observation-based studies • Sea-level history along the west coast of Norway (John I. Svendsen, UiB)

- Arctic Sea Level Budget Assessment during the GRACE/Argo Time Period (Roshin Raj, NERSC)
- Re-assessing extreme sea level events through interplay of tides and storm surges (Stephen Outten, NERSC)









11:00 – 11:15 **Coffee break**

11:15 – 11:45 Session 2: Model-based studies

- Ice sheet modelling at Bjerknes Center (Petra Langebroek, NORCE)
- Concurrency of sea level and wave height extremes in Norwegian coastal waters (Ole Johan Aarnes, Norwegian Meteorological Institute)
- Introducing the Norwegian Climate Prediction Model and Mare Nullius project (Noel Keenlyside, UiB/NERSC; Vandhna Kumar, UiB)

11:45 – 12:15 Session 3: Synergy between observations and models

- New tools to estimate the stability of the Greenland ice sheet (Andreas Born, UiB)
- Coastal Changes during 21st Century (William Helland-Hansen, UiB)
- Sea level in Arctic ocean reanalysis (Jiping Xie, NERSC)

12:15 – 13:00 Lunch break

13:00 – 13:30 Session 4: Sea-level projections

- The future sea-level contribution of the Greenland ice sheet: a multi-model ensemble study of ISMIP6 (Heiko Goelzer, NORCE)
- Current sea-level projections for Norway (NCCS report) and where to go from there (Kristin Richter, NORCE)

13:30 – 14:00 Session 5: Innovative Methods (Keynote)

Overview of ML/AI methods in marine science (Ketil Malde, IMR;
 Machine Learning group Departments of Informatics, UiB)









14:00 – 14:15 **Coffee Break**

14:15 – 15:45 **Discussion and Tasks** (A. N. Meckler, K. Nisancioglu, BCCR)

- The relevance of sea-level research in regard to the transition of Bjerknes Center from Phase 2 to Phase 3 (Tore Furevik, BCCR)
- **Priorities** to realize cross-disciplinary studies
- Identify skills, expertise and knowledge gaps
- Identify strategic **partnerships** (national and international)
- Deliver a workshop report
- Develop a strategy and implementation plan for short- and medium- term research activities
- The launch of the Bjerknes Centre "Sea-Level Research Group" (SLRG).

15:45 – 16:00 Final Remarks (J. A. Johannessen, NERSC)

List of Participants

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