Sea Level Research Workshop

"Sea-Level Change: Earth System Feedbacks"

Bjerknes Center for Climate Research (BCCR), Bergen, Norway – 12th October 2020

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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   **Session1: 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)

- *Norwegian Climate Prediction Model* (*Noel Keenlyside, UiB/NERSC):*

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)
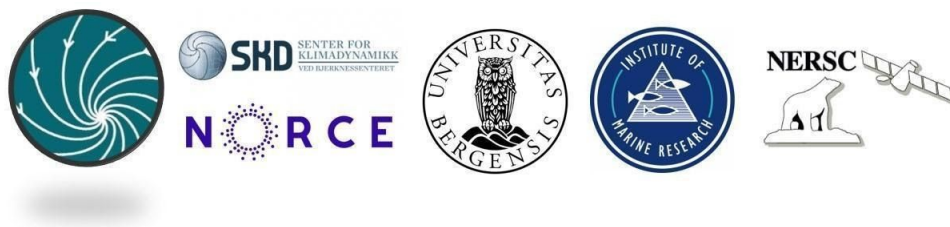
14:00 – 14:15	**Coffee Break**

14:15 – 15:45	**Discussion and Tasks**

- 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). Is it a good way to start?

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

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