



Bjerknes Center for Climate Research - Strategic Project 2022-2025

“Sea Level Prediction and Reconstruction (SeaPR)”

Progress Meeting

Nansen Center, 29th September 2022

Agenda

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|---------------|---|
| 10:00 – 10:15 | Welcome and Introduction |
| 10:15 – 11:15 | <p>Work Group 1: Sea-level governing processes during present times and predictability (WP1) [Lead: NERSC; Co-lead: IMR; Partners: UiB, NORCE]</p> <ul style="list-style-type: none"> ● Task 1.1 - Multi-platform data collection [NERSC, IMR]
- SeaPR on Sigma2 - Discussion ● Task 1.2 - Sea-level budget analysis, atmospheric and oceanic processes (e.g., ocean heat content, SML) [NERSC, NORCE,IMR]
- <i>Detection and attribution of mass component of sea level along the Norwegian coast using the GRACE satellite mission (F. Mangini)</i> ● Task 1.3 - 3D mesoscale contributions [NERSC, IMR, NORCE]
- <i>Exploitation of enhanced altimetry datasets for investigating ocean mesoscale variability in the Nordic Seas (A. Bonaduce, R.P. Raj) - Update the discussion</i> ● Task 1.4 - Seasonal-to-decadal hindcast simulations with NorCPM [UiB, NERSC] |
| 11:15 - 11:30 | Coffee Break |
| 11:30 – 12:30 | <p>Work Group 2 - Reconstruct and attribute sea-level changes during the 20th century (WP2) [Lead: NORCE; Co-lead: UiB; Partners: IMR, NERSC]</p> <ul style="list-style-type: none"> ● Task 2.1 - Reconstructing and attributing contributions to regional sea-level [NORCE, UiB, IMR, NERSC].
<i>Sea level contributions on the shallow continental shelf at Svinøy (K. Richter)</i> |



- Task 2.1 - Anthropogenic signal and internal variability [NORCE, NERSC, UiB]
 - *Decomposing 20th century sea level change with NorESM pacemaker simulations (I. Bethke)*
- Task 2.3 - Role of model resolution for sea-level projections, weighting scheme for climate models [NORCE, NERSC, UiB]
 - *CMIP6 assessment in the Arctic (R.P. Raj, A. Bonaduce) - Update the Discussion*

12:30 - 13:15

Lunch Break

13:15 – 14:15

Work Group 3 - Project sea level with increased confidence (WP3)

[Lead: NORCE; Co-lead: UiB; Partners: NERSC]

- Task 3.1 - Process-based sea-level projections for the Greenland ice sheet [NORCE, NERSC]
 - *Ensemble design of multi-model Greenland ice sheet sea-level projections (H. Goelzer)*
- Task 3.2 - Mass change distributions from the ice sheet model output (sea-level fingerprints) [NORCE, NERSC]
- Task 3.3 - The impact of mesoscale variability in the ocean on sea-level projections [NERSC, NORCE]
- Task 3.4 Shoreline changes and coastal vulnerability [UiB, NERSC, NORCE]
 - *Coastline types and coastal vulnerability - an initial perspective (Björn Nyberg)*

14:15 - 14:30

Coffee Break

14:30 - 15:00

Wrap-up of the meeting and next steps



List of Participants

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