



Bjerknes Center for Climate Research - Strategic Project 2022-2025

“Sea Level Prediction and Reconstruction (SeaPR)”

Progress Report

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During the first free month of the project, the activities focused on Tasks in WPO and WP1 (see below for further details).

A kick-off meeting was organized in January, involving all the partners of the project, as well as with the Communication Management at the Bjerknes Center. The Scientific Officer at the Secretariat of the World Climate Research Programme (WCRP), Dr. B. Balino, was in the audience and gave a presentation on the strategic plan in WCRP-CliC to explore the connections with SeaPR.

SeaPR was mentioned in a number of research proposals and contributions to national and international initiatives.

The recruitment of an early career scientist is currently ongoing.

WPO - Project Management

- Kick-off Meeting (20th January 2022) - Task 0.2
- SeaPR was mentioned in the “Impact” of NFR and ESA proposals submitted in February 2022 - Task 0.3
- SeaPR activities linked the sea-level change in Norway report (Miljødirektoratet) - Task 0.3
- SeaPR web-site in preparation (Communication Management at Bjerknes Center) - Task 0.4



WP1. Sea-level governing processes during present times and predictability

Task 1.1 - Multi-platform data will be collected over a period spanning the satellite era (early 1990s - present)

Remote-sensing data

- Satellite altimetry conventional data-set (1993-2020)
- ESA CryoTempo altimetry data (2010-2022)
- Enhanced satellite altimetry data (maps and along-track; 2016-2020)
- Gravimetry data - GRACE and GRACE FO missions (2003-2018)

In-situ data

- tide gauge data and hydrographic data along the coast of Norway
- Argo-profiling floats (2003-present)

Ocean re-analysis data

- TOPAZ (1991-2020)

Task 1.2 Sea-level Budget Analysis

The PI (A. Bonaduce) and the co-PI (R. P. Raj) are contributing to a chapter “Arctic Sea level change in Remote Sensing and new generation climate models” in a Wiley publisher's book “Advances in Remote Sensing and ‘the three poles’ “. The topic is relevant for activities in WP1.

Communication and Outreach

- The PI (A. Bonaduce) and Co-PI (K. Richter) in SeaPR are involved in the preparation of a scoping workshop (21-22 March 2022) for the North Sea and Arctic Ocean on sea-level rise impact and adaptation promoted by the JPI Sea Level Rise Knowledge Hub.



- The Co-PI (K. Richter) is involved in an International Team focused on the connection of coastal and open ocean sea-level changes at the International Space Science Institute (Switzerland) and will give a presentation during this week on Nordic Sea's circulation changes and the impact on sea-level changes on the European shelf.- the topic is relevant for the activities in WP1 and WP2 in SeaPR.
- co-PI (R. P. Raj) and SeaPR partner (H. Goelzer) have attended the first working group meeting of the WCRP's Safe Landing Climate lighthouse activities (sea level theme), in which the SeaPR project is mentioned.

Early Career Scientist

- The recruitment of a PostDoc contributing to the activities in WP1 and WP2 is currently on-going:
<https://www.jobbnorge.no/en/available-jobs/job/216989/post-doctoral-position-in-sea-level-research>)