
FRontiers in Arctic marine Monitoring (FRAM): Towards an ocean-sea ice modelling component

T. Jung, C. Wekerle, Q. Wang, S. Danilov, R. Timmermann, T. Kanzow, *University of Bremen and Alfred Wegener Institute in the Helmholtz Association*

Kurzgefasst

- Arctic Marine Monitoring
- Ocean-sea ice modelling

The Fram Strait is the only deep gateway between the North Atlantic and the Arctic Ocean, and freshwater and heat exchanges through this gateway are thought to be of global importance. The Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, started to build an open-ocean observation infrastructure—the FRAM ocean observatory—with an emphasis on Fram Strait. Biological, biogeochemical and hydrographic parameters will be measured in the whole water column, and will be obtained year-round at high spatial and temporal resolution. In this project a FRAM modelling component will be developed that allows carrying out high-resolution simulations of the ocean, sea-ice and biogeochemical conditions in this area that will be used to interpret observational data and formulate hypotheses about possible past and future changes in Fram Strait and beyond. As a first step, the Finite Element Sea Ice-Ocean Model (FESOM) will run at eddy-resolving scales while keeping a relatively coarse-resolution setup otherwise.

Weitere Informationen

- [1] http://www.awi.de/en/news/press_releases/detail/item/project_start_the_awi_is_constructing_a_new_arctic_long_term_observatory/?cHash=3032c61baa3a6caada2716a74a964953

Förderung

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