

2 PhD positions in Earth System Modeling

The Climate- and Environmental Physics Division at the University of Bern is seeking applications for two PhD positions in the area of modeling marine ecosystem-carbon-climate interactions. The research projects will focus on quantifying and understanding past and future changes in ocean extreme events, especially those associated with warming, acidification, deoxygenation and nutrient stress as such extreme climate and weather events can have strong impacts on marine organisms and ecosystems services. Both PhD projects offer the opportunity to work with a comprehensive climate-carbon cycle Earth System model and with novel satellite-based, in-situ physical and biogeochemical ocean observations. The candidates will further develop the Earth system model, present results at international scientific meetings, and publish in the peer-reviewed literature.

The PhD research work will be embedded within the collaborative project *OceanX* funded by the Swiss National Science foundation (SNSF), which aims at discovering and attributing past and future changes in ocean extremes, and at assessing and mapping the risks of the extreme events for marine organisms and ecosystems. The research is closely linked to the activities of the Oeschger Centre for Climate Change Research of the University of Bern. The salary is according to the guidelines of the Swiss National Science Foundation and University of Bern, with funding guaranteed for 3.5 years.

We are looking for two students with strong interests in oceanography, ocean biogeochemistry and climate physics, and with strong numerical (Linux, Fortran, Python, Matlab) and statistical (extreme value analysis) skills. Applicants should have a Master in Physics, Environmental/Climate Sciences, Biogeochemistry, or similar disciplines. Innate curiosity, enthusiasm for reading scientific literature, excellent writing and communication skills in English are also essential.

Applications should include a CV, a statement of research experience and interests (max. 2 pages), an academic transcript of your studies, a web link to the master thesis, and the names and addresses of at least 2 references as a single pdf file to Prof. Thomas Frölicher (froelicher@climate.unibe.ch).

Consideration of applications begins immediately. The positions will stay open until filled.