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**UNIVERSITÄT  
BERN**

Klima- und Umweltphysik, Sidlerstr. 5, CH-3012 Bern

Physikalisches Institut  
**Klima- und Umweltphysik**

## PhD position in Earth system modeling

The Climate- and Environmental Physics Division at the University of Bern is seeking applications for a PhD position in the area of modeling marine ecosystem-carbon-climate interactions. The research project will focus on understanding and modeling past and future changes in compound ocean extreme events. Compound events correspond to events with multiple concurrent or consecutive drivers (e.g. marine heatwaves co-occur with very low nutrient levels) resulting in extreme consequences for marine ecosystems. The PhD project offers 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 candidate will further develop the Earth system model, present results at international scientific meetings, and publish in the peer-reviewed literature.

The student will be supervised by [Prof. Thomas Frölicher](#), and co-supervised by [Dr. Jakob Zscheischler](#) and [Prof. Olivia Romppainen-Martius](#). The PhD research work will be embedded within the COST Action DAMOCLES, which aims at understanding and modelling compound climate and weather events. 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 a student with strong interests in oceanography, ocean biogeochemistry and climate physics, and with strong statistical (extreme value analysis) and numerical (Linux, Fortran, Python, Matlab) skills. Applicants should have a Master in Physics, Environmental/Climate Sciences, Mathematics, 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](mailto:froelicher@climate.unibe.ch)).

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