



## 1 Postdoc position in model uncertainty analysis

The inter- and transdisciplinary project RUINS (Risk, Uncertainty and Insurance under Climate Change. Coastal Land Management on the German North Sea) funded by the German Federal Ministry of Education and Research BMBF studies both risk and Knightian uncertainty of climate change impacts and adaptation options for the case of coastal land management on the German North Sea, where people benefit from a suite of ecosystem services which are subject to climate change and to alternative land management options. We will combine economics with landscape ecology through modelling, and we include local stakeholders in the process of analysis and conclusion. The project links research groups from Freiburg and Braunschweig.

**Tasks** Based on different sources of uncertainty, produce alternative probabilistic predictions of ecosystem service provision for different management scenarios by applying an existing chain of environmental models from the previous project COMTESS (Sustainable Coastal Land Management: Trade-offs in Ecosystem Services, <https://www.uni-oldenburg.de/en/comtess/>). Analyze the following sources of uncertainties: climate and sea level rise scenarios, climate models (different global circulation models with different regionalization) and species distribution model types (BRTs, GLMs, GAMs), hydrological model parameterization and missing process (salinization). Investigate ways of visualizing these different types of uncertainty to the scientific community, and test these techniques with stakeholders using a web application developed in collaboration with external contractor 52°North.

**Requirements** The successful candidate will have a strong expertise in ecological modelling (statistical and process-based) and interest in uncertainty quantification. A sound knowledge of programming (e.g., R) is required. Basic familiarity with necessary economic concepts and models is an advantage but can also be acquired during the work on this project. Applicants must hold a doctoral degree, have proven excellent publication skills and should be able to work independently. Organisational skills, high motivation and the willingness to work as part of a team within an inter- and transdisciplinary project are essential.

**Working environment** We offer a stimulating research environment within an interdisciplinary, collaborative context. The position (full time 100%, i.e. 39,8 hours per week; part-time position is also possible on request) starts **as soon as possible** and is limited to **three years**. The salary is in accordance with the German public service 13 TV-L. The TU Braunschweig fosters diversity and inclusion. Applications from people of culturally diverse backgrounds are very welcome. TU Braunschweig strives to diminish under-representation as defined by the NGG in all areas and positions. Therefore, women in particular are encouraged to apply. Where candidates have the same qualifications, preference will be given to candidates with disabilities.

**Application** Please email complete application documents as a single pdf-file including a letter of motivation, CV, copies of relevant degrees, and contact details of two referees until **August 31** to [boris.schroeder@tu-bs.de](mailto:boris.schroeder@tu-bs.de) and [a.schibalski@tu-bs.de](mailto:a.schibalski@tu-bs.de). Review will start on **September 3** and will continue until the position is filled. For informal enquiries please contact Prof. Dr. Boris Schröder-Esselbach ([boris.schroeder@tu-bs.de](mailto:boris.schroeder@tu-bs.de)) or Dr. Anett Schibalski ([a.schibalski@tu-bs.de](mailto:a.schibalski@tu-bs.de)).

### Contact

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