

# FOR PEOPLE AND THEIR FUTURE ENVIRONMENT



## 2 PhD Positions (m/f/d)

for the project C3: Sustainable adaptation scenarios for coastal systems, in the framework of the DFG Cluster of Excellence "CliCCS-Climate, Climate Change and Society" funded by the associated Helmholtz Excellence network.

code no. 2019/KS 2

The place of employment is Geesthacht, Germany.

Helmholtz-Zentrum Geesthacht, Institute of Coastal Research invites applications for **2 PhD positions (m/f/d)** for the project C3: Sustainable adaptation scenarios for coastal systems, in the framework of the DFG Cluster of Excellence "CliCCS-Climate, Climate Change and Society", funded by the associated Helmholtz Excellence network.

The Institute of coastal research at the Helmholtz-Zentrum Geesthacht hosts a number of highly motivated and experienced researchers in the broad field of coastal research. Our research focus lies on coastal system research with specific expertise in regional coupled modelling on regional and coastal scales. At Helmholtz-Zentrum Geesthacht numerical models are developed with the aim to determine the past and current state of the environment and to understand the impact of major drivers for future changes in the system.

The Helmholtz-Zentrum Geesthacht is partner in CliCCS, an ambitious research program at the University of Hamburg, which is funded by the German Research Foundation (DFG) and part of Germany's Excellence Strategy. CliCCS aims to understand climate changes, taking into account internal variability, extreme events, and unexpected side effects, addressing the natural and social spheres as well as their interactions. CliCCS' overarching research question is: Which climate futures are possible and which are plausible? The programme will investigate how climate changes and how society changes with it, thereby feeding back on climate. It will identify those climate futures that are consistent with both climate and social dynamics (possible), and those we expect to unfold with appreciable probability (plausible).

The positions are for the duration of 36 months and commence on 01. April 2019. CliCCS PhD candidates are members of the SICCS graduate school, which aims to help young academics thrive through all stages of their training, for more information please check the link: Graduate School (<https://www.clisap.de/de/grad-school/sicss/about-sicss/>)

### Responsibilities:

Duties include academic services in the project named above. Research associates can also pursue independent research and further academic qualifications.

### Specific Duties:

The candidates will study climate and direct anthropogenic impacts on estuarine systems including their specific role for biogeochemical turnover. The PhD candidates will apply and extend existing coupled physical-biogeochemical models. Specific parameterizations for human impacts will be integrated into existing estuary and coastal models and the combination of climate drivers and human impacts will be studied. The extended model system will be used to develop climate change impact scenarios under different land-use, harbour and coastal management- and upstream water management scenarios. Active cooperation with climate scientists from different disciplines at the University of Hamburg and the Max Planck Institute for Meteorology is expected.

### Requirements:

- master or diploma in climate science or related disciplines
- strong interest in marine and estuarine physical and biogeochemical processes
- good knowledge in oceanography and biogeochemistry
- experience in scientific programming with FORTRAN and related analysing programming languages (e. g. MATLAB, R, Python)
- the candidate must have either profound knowledge in English - native or TOEFL-score with a minimum of 25 in each of the four sections or equivalent (e.g. "DAAD-Sprachzeugnis") - or German (native or "Deutsches Sprachdiplom", Stufe 1) with good knowledge in English
- good communication skills and ability to work in an interdisciplinary team of various fields of geosciences

### We offer:

- multinational work environment with over 950 colleagues from more than 50 nations
- extensive options of vocational training (i. a. expert seminars, language courses or leadership seminars)
- flexible working hours and various models to ensure the compatibility of family and career
- excellent infrastructure, including a scientific in-house library as well as modern work spaces
- remuneration according to the standards of the collective wage agreement TV-AVH including further social benefits
- cooperation within an interdisciplinary project team and within the Cluster of Excellence at the University of Hamburg

**The promotion of equal rights is a matter of course for us. Severely disabled persons and these equals severely disabled persons who are equally suitable for the position will be considered preferentially within the framework of legal requirements.**

## Helmholtz-Zentrum Geesthacht

Centre for Materials and Coastal Research

### The Helmholtz-Zentrum Geesthacht (HZG),

The Helmholtz-Zentrum Geesthacht in Geesthacht, near Hamburg, and in Teltow, near Berlin, conducts materials and coastal research. For further information please refer to: [www.hzg.de](http://www.hzg.de).

### The Helmholtz-Zentrum Geesthacht

is one of the 18 national institutions of the Hermann von Helmholtz Association of German Research Centres e.V. (HGF). Around 950 employees carry out basic research and development work in close cooperation with national and international research institutions, research-oriented clinics and economic and public institutions.

### At the Institute of Coastal Research

about 150 scientists research processes on the coast and interactions between the land, the sea and humans. The objective of the three sub-institutes "Biogeochemistry in Coastal Seas", "Operational Systems" and "System Analysis and Modelling" is to create the scientific basis for sustainable development and future-oriented management of the coasts.



**wissen  
schafft  
nutzen**

Deadline: **26.02.2019**

Workplace: Geesthacht

Contact: Ms. Erika Krüger

[personal@hzg.de](mailto:personal@hzg.de)

[www.hzg.de](http://www.hzg.de)

Please send your application indicating job offer **code-no. 2019/KS 2** your CV, certificates of your university degrees, transcripts, a list of publications, description of research experience and goals, and a list of up to three references to [personal@hzg.de](mailto:personal@hzg.de).