

FOR PEOPLE AND THEIR FUTURE ENVIRONMENT



PhD Position (m/f/d) in the area of phytoplankton diversity and productivity

Reference code: 50033334_2

Commencement date: starting date is January 1, 2021

One scientific focus of the Institute of Coastal Research is the investigation of biogeochemical cycles in the coastal ocean. The Institute uses and develops the coastal observing system COSYNA, one of the densest in-situ measurement systems in the world. The departments "Remote sensing", "Integrated Coastal Observing Systems" and "Marine Snow and Plankton" study ocean colour, coastal carbon cycle dynamics, and productivity.

We invite applications for a PhD position (m/f/d) in the area of phytoplankton diversity and productivity. The successful applicant will work in the recently funded project "PhytoDive" (Global Phytoplankton Diversity and Productivity in the Coastal Ocean) aiming to resolve species' diversity and productivity of (harmful) phytoplankton blooms and their impact on (1) the carbon cycle in the coastal ocean and (2) food web dynamics. This research encompasses a multi-disciplinary approach including hyperspectral remote sensing as well as physical, biogeochemical and biological processes. A focus is on primary production and phytoplankton diversity estimates from ocean color satellites and autonomous FerryBoxes, as well as plankton and marine snow observations from high-resolution in-situ imaging at cabled underwater observatories. The combined observations across various spatial scales will be used as a link to higher trophic levels and particulate organic carbon flux and to resolve small- to mesoscale ocean dynamics.

We are looking for a qualified and motivated PhD student to complete the multifaceted project tasks of PhytoDive. The position is initially limited to three years. Anticipated starting date is January 1st, 2021.

Your tasks

- scientific evaluation and analysis of physical, biogeochemical and biological data from e.g. remote sensing, FerryBoxes and underwater-imaging systems with respect to phytoplankton diversity and productivity
- participation in cruise campaigns

 **Helmholtz-Zentrum
Geesthacht**

Zentrum für Material- und Küstenforschung

The Helmholtz-Zentrum Geesthacht is one of the 19 national institutions of the Hermann von Helmholtz Association of German Research Centres e.V. (HGF). Around 1000 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.



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Application deadline: 04.10.2020

Job location: Geesthacht

Contact: Ms. Erika Krüger

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- scientific publications and presentations at national and international conferences and workshops

Your profile

- a master's degree in marine chemistry or biology, geosciences, mathematics or related disciplines
 - solid understanding of biogeochemical and biological productivity dynamics
 - profound programming skills (e.g., experience with MATLAB, R, or Python)
 - willingness to participate in research cruises
 - good knowledge of English (written and oral)
 - good communication skills and ability to work in an interdisciplinary team with scientists, engineers, and technicians
 - high degree of creativity and flexibility
- Desirable qualifications:

- knowledge of coastal and shelf sea dynamics and biological-physical interactions
- knowledge of ocean optics and remote sensing
- experience with remote-sensing and in-situ biogeochemical sensors and imaging
- experience with handling large datasets

For further questions please contact Dr. Yoana Voynova(yoana.voynova@hzg.de), Dr. Klas Ove Möller (klas.moeller@hzg.de), or Prof. Burkard Baschek (burkard.baschek@hzg.de).

We offer you

- multinational work environment with over 1.000 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
 - an appropriate salary related to the German public tariff (TV-AVH) plus the usual social benefits for the public employment sector
- Geesthacht is located 35 km southeast of Hamburg in Northern Germany. Its location combines proximity to Germany's second largest city and its cultural offerings with easy access to numerous outdoor activities in a beautiful setting. We are a family-friendly employer and operate our own kindergarten on campus.



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