Research Scientist (m/f/d) in the area of submesoscale dynamics

Reference code: 50047891_2
Commencement date: April 1st, 2021
The place of employment is Geesthacht

The department of Submesoscale Dynamics investigates the dynamics of submesoscale eddies, filaments and fronts in coastal and shelf regions. One focus is on their interaction with the biogeochemistry and productivity - and how these effects upscale globally. This is achieved with a combination of high-resolution observations and models for specific regional settings. Current projects include coastal and shelf regions off Cape Verde, Norway, and the South Atlantic.

We are looking for a qualified and motivated scientist to identify key processes, propose their adequate sampling as well as help to implement and evaluate high-resolution, physical-biogeochemical model simulations in coastal and shelf regions.

We invite applications for a Research Scientist position (m/f/d) in the research group Submesoscale Dynamics at the Institute of Coastal Research. The position is initially limited to three years.

Your tasks
- scientific analysis of high-resolution observations and models of submesoscale processes with special emphasis on horizontal and vertical mixing processes, and their impact on physical-biological interactions
- design and implementation of coastal and shelf model simulations (e.g. ROMS)
- implementation of artificial intelligence algorithms into large/multi-disciplinary datasets
- data assimilation of biogeochemical variables into earth system models
- implementation and testing of parameterisations in coarse-resolution ocean circulation models
- planning of and participation in international research expeditions
- scientific publications and presentations
- working as an integral part of a motivated multidisciplinary team within the institute and with external academic partners

Your profile
Essential qualifications:

- a doctoral degree in physical oceanography, engineering, or related discipline
- at least 2 years of post-doctoral experience
- research experience on physical-biological interactions at meso- and submesoscales
- excellent academic publication record
- knowledge of processing and interpretation of observations and model output
- good communication skills in English
- high degree of creativity and flexibility

Desirable qualifications:

- knowledge of Linux/Unix operating systems
- familiarity with regional numerical models and high-performance computing platforms
- experience with multi-disciplinary and high-resolution in situ or remote sensing observations
- good programming skills in Matlab, Python, R or Julia
- knowledge of handling NetCDF and GRIB data sets
- willingness to participate in research cruises and travel
- desire to acquire solid communication skills in German

For further questions please contact Dr. Paulo Calil (Paulo.Calil@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
- remuneration according to the standards of the collective wage agreement TV-AVH including further social benefits

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.