

The **MARUM - Center for Marine Environmental Sciences** at the **University of Bremen**, is offering (under the condition of job release) at the earliest possible date:

**PhD position (f/m/d) in the area of marine geosciences.
German federal pay scale E13 TV-L (66,66 %) for 36 months.**

MARUM has developed into an internationally recognised centre for marine research with a focus on the geosciences, anchored at the University of Bremen.

The time limitation is based on § 2 (1) WissZeitVG (Wissenschaftszeitvertragsgesetz, i.e. temporary science employment act). Therefore, candidates may only be considered who dispose of the respective scope of qualification periods according to § 2 (1) WissZeitVG

The candidate (f/m/d) will become a member of the graduate program at the Department of Geosciences at the Universität Bremen (Germany) and will have access to the graduate program GLOMAR - the Bremen International Graduate School for Marine Science, at the MARUM. These includes that Ph.D. students are supervised by a team of experienced scientists. In addition, expert as well as skills and methods courses, coaching, networking opportunities, and the opportunity to compete for internal funds are offered at MARUM, that Ph.D. students acquire expert knowledge in their field and a solid background across many disciplines of marine sciences.

Project Description

Collapse of volcanic islands are among the most dangerous and catastrophic natural geohazards. Sector collapses can generate extremely large landslides and associated tsunamis, endangering coastal communities and seafloor installations. The island of Montserrat in the Lesser Antilles is an ideal target area to study volcanic island landslide processes particularly to improve the general understanding of the interrelationship of volcanic processes and associated gravitational mass movements as well as subsequent tsunamis.

During the Meteor expedition M154-2 in 2019, sediment cores and comprehensive logging data utilizing gravity coring and MeBo70 drilling were collected along a transect from the undisturbed part of the slope throughout the slide masses.

The successful candidate will focus on sedimentological, sediment-physical and compositional analyses of the M154-2 materials to gain a deeper insight into the internal structure, composition, source and emplacement processes (e.g. stratigraphic ages, sediment composition, source area, degree of deformation, transport distance and initiation etc.). The PhD will work on a systematic identification of sedimentary units associated with episodes of island building (i.e., tephra fall and some volcanoclastic deposits) and collapse events (i.e., bioclastic turbidites, mixed turbidites and some volcanoclastic turbidites) as well as the subsequent development of age models to gain a better understanding of the interplay between different parameters (volume, source location, transport distance) and emplacement processes (timing, kinematics and dynamics). This will provide a unique opportunity to parameterize landslide and tsunami models enabling a better tsunami hazard assessment.

We are searching for an enthusiastic and dynamic PhD candidate who is interested in joining a multidisciplinary research team. Very good written and oral English language skills are required because the studies will be carried in an international team.

Specific requirements:

- Completed MSc or Diploma degree in Geosciences, Geology, Earth Sciences, Geophysics, or related fields;
- Knowledge in geology, sedimentology, geophysics, marine geosciences, or related topics;
- Skills in multidisciplinary analyses of sediment cores would be helpful;
- Very good knowledge of English obligated.

The University of Bremen follows a diversity strategy. It strives to increase the number of women in the academy and strongly encourages applications from suitably qualified female candidates. International applications and applications of candidates with a migration background are explicitly welcome. Disabled persons with the same professional and personal qualifications will be given preference.

Applications should be submitted under the reference number **A1/21** to

Prof Dr Katrin Huhn-Frehers
MARUM, Universitaet Bremen
Leobener Straße 8
D-28359 Bremen

or by e-mail to khuhn@marum.de

Documents should include a letter of motivation, a CV, the applicant's research and technical background as they relate to the position.

As the positions should be filled as the nearest possible date, the deadline for the application is **17 March 2021** or until the position is filled.

For further enquiries please contact:

Prof Dr Katrin Huhn-Frehers
khuhn@marum.de

