Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

Faculty/Departement	Mathematics, Informatics, Natural Sciences/Earth Sciences
Seminar/Institute	Institute of Geophysics

Universität Hamburg invites applications for a Research Associate in accordance with Section 28 subsection 1 of the Hamburg Higher Education Act (Hamburgisches Hochschulgesetz, HmbHG). The position commences on July 1st, 2018, or as soon as a suitable candidate is found .

It is remunerated at the salary level TV-L 13 and calls for 50% of standard work hours per week.*

The fixed-term nature of this contract is based upon Section 2 of the Academic Fixed-Term Labor Contract Act (Wissenschaftszeitvertragsgesetz, WissZeitVG). The initial fixed term is three years.

The University aims to increase the number of women in research and teaching and explicitly encourages qualified women to apply. Equally qualified female applicants will receive preference in accordance with the Hamburg Equality Act (Hamburgisches Gleichstellungsgesetz, HmbGleiG).

Responsibilities:
Associates will be expected primarily to conduct and teach research. The associate will have the opportunity to pursue further academic qualifications, in particular a doctoral dissertation. At least one-third of set working hours will be made available for the associate's own academic work.

Specific Duties:
The use of ocean-generated seismic noise has dramatically increased in recent years. Ambient noise correlations make it possible to exploit the vast amounts of background noise recorded continuously around the world. This has resulted in an explosion in the number of high-resolution tomographic images in the past decade. Noise correlations have also been used successfully to monitor wave speed changes over time in potentially dangerous structures such as landslides, volcanoes and active fault zones.

One of the major unknowns in this emerging field of seismology is the origin of noise used for these analyses. This PhD project will aim to understand the physical mechanisms responsible for exciting both vertically and horizontally polarized microseismic noise. In a first stage, observations from multiple small networks of seismic instruments on land will be used to localize and characterize different sources of noise. Better constraints on the location and behavior of noise sources will help us understand the ocean–solid Earth interaction processes driving them. Up to 2 hours/week of the candidate’s time will be dedicated to assisting in the Seismology Bsc and Msc teaching programme.

* Full-time positions currently comprise 39 hours per week.

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Requirements:
A university degree in a relevant field. We are seeking highly motivated candidates with excellent academic records from a wide range of backgrounds. They must hold a MSc or equivalent in geophysics, physics, applied mathematics, computational sciences or related fields. Exposure to time series analysis, numerical methods and partial differential equations would be advantageous. Familiarity with computer programming (preferably Python or Matlab) and a solid knowledge of English are mandatory.

Severely disabled applicants will receive preference over equally qualified non-disabled applicants.

For further information, please contact Prof. Celine Hadziioannou by phone (+49 (0)40 42838 2980) or email (celine.hadziioannou@uni-hamburg.de) or consult our website at https://www.geo.uni-hamburg.de/en/geophysik.html.

Applications should include a cover letter, curriculum vitae, names of two referees, and copies of degree certificate(s). The application deadline is April 30th, 2018 . Please send applications to:

Prof. Celine Hadziioannou
celine.hadziioannou@uni-hamburg.de .

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