

Open PhD position in Geophysics and Geodesy at KIT

The Karlsruhe Institute of Technology (KIT) has an opening for a Ph.D. position to be filled as soon as possible.

Description: The position is funded by DFG within the project 'Temporal variation of tidal parameters', a cooperation of the Geophysical Institute and the Geodetic Institute at the Black Forest Observatory (BFO). The project offers a framework for a doctorate in the Faculty of Physics (Geophysics) or in the Faculty of Civil Engineering, Geo- and Environmental Sciences (Geodesy). Recent progress in gravity observation and numerical modeling of Earth's subsystems has revitalized tidal research. The project focuses on observed temporal variations of Earth's admittance to tidal forcing and the role of oceans and climate effects in this context. The successful candidate will contribute to the workpackage 'A robust approach to tidal analysis'. A new approach to tidal analysis will be implemented based on geophysical inverse theory as an alternative to the common geodetic approach. The solution to the inverse problem will use explicit, adjustable model constraints to regularize the problem and will provide a versatile mechanism to define additional base functions (ambient pressure, solar harmonics, etc) and model parameters (distinguish spherical degrees, etc). Implementation of the algorithm will be highly modular, ideally implemented with object oriented programming.

Requirements: The successful candidate should hold a Master's degree in geophysics or a related discipline. A strong interest in software development and programming skills are expected, preferably in C++ or Fortran 95. Experience in the fields of tidal analysis and inverse theory are a definite plus. The candidate is expected to assist during lectures and field courses within our Geophysics Bachelor and Master programs. The applicant should be open minded, active and have a good command of the English language. Knowledge of the German language is an advantage.

Payment: Payment will be in accordance with the official agreement on tariffs for public-service employees TV-L, 100% of E13 (cf. <http://oeffentlicher-dienst.info/tv-l/west/>). The first contract will cover two years with an extension being possible.

Application: Questions can be addressed to Dr. Thomas Forbriger by e-mail (thomas.forbriger@kit.edu) or telephone (+49 7836 2151). Please submit your application **no later than 05.12.2016** by e-mail as one pdf file to thomas.forbriger@kit.edu. The file includes (1) cover letter, (2) curriculum vitae, (3) copies of academic degrees and transcript of records, (4) contact for one letter of recommendation, (5) statements regarding project related skills and list of publications, if applicable. KIT is an equal opportunity employer. Women are especially encouraged to apply. Applicants with disabilities will be preferentially considered if equally qualified.

Information about the Karlsruhe Institute of Technology (KIT) and the Geophysical Institute, the Geodetic Institute and the Black Forest Observatory can be found at www.kit.edu, www.gpi.kit.edu, and www.gik.kit.edu, respectively.