

Post-doctoral position in computational seismology  
Institute of Earth Sciences  
University of Iceland

Applications are invited for a post-doctoral position in computational/numerical seismology for one year. A one year extension is possible depending on how the research project progresses.

The objective of the project ('4D Seismic in the South Iceland Seismic Zone: A tool for strong earthquake forecasting') is to determine whether temporal changes in seismic velocity occur in the crust prior to large earthquakes in South Iceland (i.e. pre-seismic signals), using local earthquake data. Tens of thousands of well-located small and micro-earthquakes have been recorded in the area since 1991 with a modern digital network. Three large (> 6) earthquakes have occurred since the year 2000. Members of the research group are working with methods to improve accuracy of earthquake locations of the local network and thus obtain high accuracy in velocity structure. The project obtained a Grant of Excellence from the Icelandic Research Fund in 2015.

The candidate will be involved in applying and developing inversion methods for detecting temporal changes in 2 and 3 spatial dimensions with statistical validation. The candidate should have a high proficiency in inversion methods, ray-tracing and statistical model validation.

Candidates must hold a Ph.D. degree in a relevant computational/numerical intensive field, and should have published two or more ISC journal articles as first author. Candidates need to be able to work independently and in good cooperation with the rest of the research group, and be proficient in English. An interest in geology and tectonics is a plus.

The application deadline is October 2<sup>nd</sup> 2017. The position starts as soon as possible and by agreement. There is a possibility of a one-year extension. Please apply for the position number HI17090022, online here: [http://english.hi.is/vacancies\\_list](http://english.hi.is/vacancies_list).

Applications shall include; i) a cover letter with contact information, ii) a CV, iii) Ph.D. diploma, iv) one-page statement of research interest, v) names and contact information of two potential referees, vi) reprints of 2-5 authored papers, which best reflect competence of the applicant in the required fields. All applications will be answered and applicants will be informed when a decision has been made.

For further information, please contact Dr. Ingi Th. Bjarnason ([ingib@hi.is](mailto:ingib@hi.is)).

Information about the project is available at: <https://www.researchgate.net/project/4D-seismic-of-the-South-Iceland-Seismic-Zone-Strong-earthquake-forecasting>.

Appointments to positions at the University of Iceland are made in consideration of the Equal Rights Policy of the University of Iceland.

At the School of Engineering and Natural Sciences, 360 people are employed in research and teaching. The School offers an international environment, with the number of international employees and students increasing each year. Currently 25% of all employees and

postgraduate students are international. There are around 2300 students at the School, divided into six faculties, thereof are 350 graduate students and 150 doctoral students. Research institutes at the school are the Science Institute that divides into the Institute of Earth Sciences and Institute of Physical Sciences, Institute of Life and Environmental Sciences, Engineering Research Institute and the Institute for Sustainability Studies which is an interdisciplinary institute and belongs to the five schools of the University of Iceland.

The University of Iceland is the largest teaching, research and science institute in Iceland and is ranked among the top 250 universities in the world by Times Higher Education. Information on the University of Iceland [here](#) and [Relocation Service here](#).