

# Researcher positions

## Institute of Geophysics, Czech Academy of Sciences

The Institute of Geophysics of the Czech Academy of Sciences (IG CAS) in Prague is seeking **outstanding researchers to fill up to 4 full-time researcher positions, from junior post-doctoral to mid-career level**. The relevant fields of research are broadly defined across the full range of geophysical and geological sciences and Earth observations.

### Key research fields considered

- **Interdisciplinary research and modelling of key geodynamic processes:** Processes of lithosphere deformation on geological timescales, at plate boundaries and within intraplate domains; modelling of magma ascent, volcano-tectonic processes. Analysis of fault and fault zone formation in various stress regimes and materials using numerical and analogue models. Tectonic and thermal evolution of sedimentary basins.
- **Seismotectonics:** Analysis and modelling of seismic response to active tectonic processes; analysis of global seismic databases; volcano-seismology; correlation with ground deformation signals (e.g., InSAR); earthquake hazard assessment; modelling of seismic source; anisotropic models of continental lithosphere; velocity structure of the upper mantle.
- **Earth & planetary surface processes/morphodynamics, palaeoclimate:** Tectonic/quantitative geomorphology; Quaternary geology; modelling of sedimentary processes on the Earth and other planets; landscape evolution; sedimentary budgets and routing in basins; numerical methods in surface processes, including applications of cosmogenic nuclides. Analysis of geophysical, geological and geochemical proxies for reconstructing palaeoclimate; application of GCMs to climates in the Earth's past.
- **Analysis & modelling of regional to global gravity, geodetic, and geomagnetic data:** Basic and applied research involving, e.g., acquisition, processing and interpretation of gravity and geodetic data in regional geodynamic studies, investigation/monitoring of volcanic and tectonic activity. Studies of the geomagnetic field and rock magnetism.
- **Applied geophysics - geothermics:** Exploration, modelling, and development of geothermal energy resources.
- **Earth observatories of the Institute of Geophysics:** the Institute operates tens of seismic stations, several geodynamic observatories and a geomagnetic observatory at the territory of the Czech Republic. Ensuring smooth operation of the observatories, primary data processing, communication with international data centres and namely cooperation with respective research teams of the institute is an opportunity for technically/data acquisition oriented individuals with organisational skills.

### Who should apply?

**Your qualification, skills:** We invite individuals holding or currently finishing a PhD in Earth sciences or related physical sciences. The successful candidates will have good communication skills in English, will present and publish research results at a solid international level, and will be able not only to integrate into existing teams or projects, but also to develop innovative research areas. Vision and skills to build and lead a research team are particularly welcome. For some positions, ability to collaborate with our observatory team would be an advantage – for example, in using data from the seismological network we run on the Reykjanes peninsula, Iceland.

**Fairness and equality:** We welcome international applicants as well as Czech citizens. The primary criteria in selecting the successful candidates will be scientific merit and the way in which they would contribute to the future development of our institute and its teams. We are committed to ensuring a positive working environment for all of our employees, irrespective of their nationality, gender, ethnicity, sexual orientation, or disability. We understand that offering a stable and supportive social environment at work is essential.

## **Application procedure**

The positions remain **open until filled**; evaluation of applications will begin on September 2, 2024. Initial employment will be offered for a **fixed term (2 years), with expected continuation of employment after successful evaluation**. Expected starting date of contract is January 1, 2025, but can be adjusted individually. We encourage applicants with current commitments, who are interested in joining us later, to communicate with us. An applicant is expected to send a **motivation letter, CV, a list of publications**, and provide names of 3 professionals from relevant academic or industry fields from whom reference letters can be requested, to the following contact address: [jobs@ig.cas.cz](mailto:jobs@ig.cas.cz). Please include „Recruitment IG CAS 2024“ and your name in the email Subject.

## **About us**

**The Institute of Geophysics** is a public research institution focusing on fundamental research, strong in acquisition of observational data and involved in applied research in collaboration with industry partners. The institute currently employs about 50 researchers. **The formal communication language within the institute is English**. Integration of international colleagues into our institute is evidenced by the fact that three of our current seven research teams are led by internationals who are also successful in obtaining research funding – including an ERC Starting Grant, other international and national research grants, or CAS support for expensive instrumentation.

We operate a number of permanent seismological stations as part of the Czech Regional Seismic Network (CRSN), a local seismic network in seismically active Western Bohemia (WEBNET), and an array of seismic stations deployed in Reykjanes, Iceland. More than 50 mobile seismic units are used in local as well as international passive seismic experiments, at present namely within the AdriaArray initiative. Ten Phoenix Geophysics MTU-5C systems for magnetotelluric field measurements are available for the research activities of the MT team in volcanology, tectonics and mineral endowment. Other observatories include the South Bohemian geomagnetic observatory as a part of the international INTERMAGNET initiative and experimental geothermic stations installed in boreholes. Gravity and Earth tides observations are carried out at several locations. A range of instruments for rock-magnetic measurements is used for study of rock microstructure, deformation, or environmental magnetism. For developing computationally intensive tasks, the Institute uses its own supercomputing facility ‘Krkonoš’, in addition to shared supercomputing facilities nationwide. Study of crustal- and lithosphere-scale geodynamic processes is supported by a recently built analogue modelling laboratory.

In our institute, researchers have the opportunity to fully focus on their scientific work. [The Czech Academy of Sciences](#) supports an environment of freedom in pursuit of scientific progress, and offers programs to additionally financially support and reward outstanding individuals at various stages of careers. Programmes to financially support international collaboration and travel are also available, both from the Academy and the Ministry of Education. A dedicated programme is run by the CAS to support junior postdoctoral researchers. Involvement of our researchers in teaching and supervision of geoscience students is encouraged, as well as involvement in public outreach activities of our institute.

The institute is located in a [research campus](#) shared with two other institutes, in a green residential area of southeastern [Prague](#), comfortably connected to the city centre by public transport

(15 minutes by underground). Prague, the capital of the Czech Republic, ranks among the 20 largest cities of the European Union and is an attractive travel destination.