

# PhD position on the Hellenides paleoseismological record (4 years)

The research will be carried out in the framework of the project “Enhancing paleoseismological record through multi-methods cave deformation analysis tested in diverse Hellenides tectonic regimes” (project 2023/50/E/ST10/00432), financed through SONATA BIS from the Polish National Research Center (<https://www.ncn.gov.pl/>) under the management of Associate Professor Jacek Szczygiel. The project aims to advance the scientific knowledge on speleothems' vulnerability to earthquake environmental effects and its usage in paleoseismology and potential seismic hazard assessment.

At the Institute of the Earth Sciences University of Silesia in Katowice, we seek a motivated PhD student with knowledge and experience related to either neotectonics and/or paleoseismology to conduct:

1. geomorphological and structural observations and related field sampling of deformed speleothems and fault slip data measurements of cave passage offsets in three regions: Crete, Gulf of Corinth, and Macedonia;
2. sample processing of collected field data in the lab for U/Th dating'
3. fault-slip data paleostress analysis and compilation of geochronological results;
4. work with the international team.

The successful candidate will have experience conducting seismological, spatial, and structural data analyses, will be able to work independently and within a dynamic team, and will display creativity and motivation about the project objectives.

Background knowledge in paleoseismology, structural geology, and speleology is desired but not essential. You will be working on-site at field locations in three different Greek locations (4-6 trips, each 1 -2 weeks). The successful candidate will be supervised by Jacek Szczygiel at the University of Silesia and cooperate with the in-house research team and researchers from Greece and Austria.

You will be expected to publish your results in peer-reviewed international academic journals. In addition, approximately 20% of your time will be dedicated to courses within the doctoral school program.

## Requirements:

### As the ideal candidate, you have:

- Master's degree in geology, geophysics, earth sciences, or related fields;
- experience in paleoseismology and/or tectonics and/or speleology;
- very good communication skills in written and spoken English.

### Other desired skills:

- working with GIS and structural geology software such as QGIS or ArcGIS, TectonicsFP, Orient etc.;
- general background in structural geology;
- knowledge of seismology;
- mountaineering or caving skills are preferable but not essential if the candidate can show his willingness and the ability to work in difficult terrain;
- good organizational and communication skills;
- an open, critical, and interdisciplinary mindset.

### Terms of employment:

The position is available starting in October 2024 and will be filled for a fixed term of 4 years.

For informal questions, please contact Jacek Szczygiel [jacek.szczygiel@us.edu.pl](mailto:jacek.szczygiel@us.edu.pl).

### How to apply:

The official call will be announced soon on <https://irk2.us.edu.pl/pl/offer/SD-GRANT-2024/registration/> where details on the required documents and deadlines will be provided. As soon as the call appears, it will be posted on “X” (twitter) account of Jacek Szczygiel @SpeleoJacek