



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Subduction Zone Geophysics, Faculty of Environment



Salary: Grade 7 (£38,205 – £45,585 p.a. depending on experience)

Reporting to: Tim Craig

Reference: ENVEE1760

Fixed term for 24 months to complete specific time limited work

Location: University of Leeds

We are open to discussing flexible working arrangements

Overview of the Role

Are you an ambitious researcher looking for your next challenge? Do you have an established background in geophysics? Do you want to further your career in one of the UK's leading research intensive universities?

We are seeking a Postdoctoral Research Fellow to join the Institute for Geophysics and Tectonics at the University of Leeds. This role is focused on the dynamics of the subduction process, and the seismicity related to subduction. The Research Fellow will work with Dr Tim Craig and his research group, and will work on the study of subduction zone dynamics and/or subduction zone seismicity. This will include either the development and application of numerical geodynamic models focused on aspects of the subduction process, or quantitative seismological studies of subduction zone seismicity, aimed at understanding the controls on earthquake rupture in subduction settings.

A number of subject areas are available for study, depending on the Fellows' interests and skill: (a) processes controlling thermo-rheological evolution of subducting slabs , and how this links to the seismicity within subducting slabs, (b) seismicity in the Outer Rise region, and the controlling geodynamic factors on such seismicity, (c) understanding intraslab seismicity, particularly the occurrence of larger earthquakes in intraslab settings, or (d) processes controlling the interaction between earthquakes.

We are looking for enthusiastic and numerate candidates with experience in geophysical research, with experience in at least one of geodynamic model construction and development, or earthquake source seismology. Candidates will have a PhD (or be close to completing one) in an appropriate aspect of solid-Earth geophysics. Ideal candidates will have experience in observational seismology, geodynamics and/or numerical modelling in the Earth Sciences.

This role is expected to begin in late 2024.

Main duties and responsibilities

- Conducting research in numerical geodynamic modelling in a subduction setting;



- Leading the development of appropriate codes and routines, and benchmarking these against established models as appropriate;
- Working collaboratively with wider research team on understanding the dynamics of subduction zones;
- Generating and pursuing independent and original research ideas in the appropriate subject area;
- Developing research objectives and proposals and contributing to setting the direction of the research project and team including preparing proposals for funding in collaboration with colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and to relate such evaluations appropriately to your own work;
- Preparing papers for publication in leading international journals and disseminating research results through other recognised forms of output;
- Working both independently and also as part of a larger team of researchers, engaging in knowledge-transfer activities where appropriate and feasible;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the training of both undergraduate and postgraduate students, including assisting with the supervision of projects in areas relevant to the project.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

Qualifications and skills

Essential

- A PhD or near completion (i.e. the initial thesis must have been submitted for examination at the time of application) in geophysics, geodynamics, seismology, or a closely allied discipline;
- A strong background in geophysics and the physics of the Solid Earth;
- A demonstrated track record of carrying out geophysical research with a focus on geodynamic modelling and/or earthquake seismology;
- Experience with the development and application of numerical approaches in your chosen branch of geophysics;



- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support;
- Excellent written and verbal communication skills including presentation skills;
- A proven ability to work well both individually and in a team;
- A strong commitment to your own continuous professional development.

Desirable

- A track record of successful, high quality, publications in internationally-recognised journals, as appropriate for your career stage;
- Experience of pursuing external funding to support research;
- Experience working on subduction-related processes;
- Experience working on earthquake source seismology;
- Experience working on geodynamic model development;

Additional information

Please note: If you are not a British or Irish citizen, from 1 January 2021 you will require permission to work in the UK. This will normally be in the form of a visa but, if you are an EEA/Swiss citizen and resident in the UK before 31 December 2020, this may be your passport or status under the EU Settlement Scheme.

Please note that this post may be suitable for sponsorship under the Skilled Worker visa route but first-time applicants might need to qualify for salary concessions. For more information please visit: www.gov.uk/skilled-worker-visa

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information please visit: <https://www.gov.uk/global-talent>

Find out more about the [School of Earth and Environment](#).

Find out more about the [Faculty of Environment](#)

Find out more about our [Research and associated facilities](#)

Find out more about [equality](#) in the Faculty.



Our University

As an international research-intensive university, we welcome students and staff from all walks of life and from across the world. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the Faculty of Environment we are dedicated to diversifying our community and we welcome the unique contributions that individuals can bring, and particularly encourage applications from, but not limited to Black, Asian and ethnically diverse people; people who identify as LGBT+; and people with disabilities. Candidates will always be selected based on merit and ability.

The Faculty of Environment has received a prestigious Athena SWAN silver award from Advance HE, the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study.

Working at Leeds

We are a campus based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our [Working at Leeds](#) information page.

Information for disabled candidates

Information for disabled candidates, impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at hr@leeds.ac.uk

Criminal record information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position, however, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be, in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information.



Visa information

Please note that this post may be suitable for sponsorship under the Skilled Worker visa route but first-time applicants might need to qualify for salary concessions. For more information please visit: www.gov.uk/skilled-worker-visa

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information please visit: <https://www.gov.uk/global-talent>

