Project Title: **Improving Future Climate Projections Through Modelling and Data of Earth's Past**

Lead Institution/Department: University of Bristol, School of Geographical Sciences
Primary Supervisor: Dan Lunt

Scholarship: A fully funded PhD studentship including UK fees, annual stipend, and a research budget, is available at the University of Bristol. Study will begin in September 2025 and is funded for four years. The deadline for applications is 31st January 2025.

Project aims and methods
There is potential for traditional climate model evaluation and development to be expanded to utilise data associated with paleoclimate states. The underlying philosophy is that we would expect to have more confidence in future predictions from a model which has successfully simulated both past and modern climate states. In this project we will improve future climate projections by tuning a climate model to better simulate key periods from Earth's past history. Focus will be on past time periods identified as being informative in the latest IPCC report – the Last Glacial Maximum (21,000 years ago), the mid-Pliocene (3 million years ago), and the early Eocene (50 million years ago), and on future climate simulations, using an ensemble approach.

Candidate Requirements
Applicants will ideally have some background in quantitative science, e.g. physics, maths, geophysics, meteorology, or physical geography. They will also have an interest in climate science.

We welcome and encourage applications from under-represented groups.

Useful Links

Please contact Dan Lunt for informal enquiries (d.j.lunt@bristol.ac.uk).

- https://www.bristol.ac.uk/geography/courses/postgraduate/
- https://www.bristol.ac.uk/study/postgraduate/research/geographical-sciences-physicalgeography/
- https://www.bristol.ac.uk/people/person/Dan-Lunt-f54ac388-22de-4fbd-9f8d-0b3b66293a83/

How to Apply:. Please apply to the "Geography (PhD)" programme at https://www.bristol.ac.uk/study/postgraduate/apply/