

The role of chemistry-climate feedbacks in recent and future climate

How will future environmental policies impact air pollution as well as climate change? How can we make the best intervention on emissions to achieve both climate and air pollution benefits? What is the climate impact of further unabated emissions?

We are offering a PhD project using the UK Earth System Model to examine these questions. The project is concerned with short-lived climate forcers - aerosols, methane, ozone and other species that together represent a key uncertainty in future climate projections. You will use climate models to examine their sources and sinks, and their role as drivers of climate change and air quality.

The project aims to connect to work focusing on the risks from near-term overshooting of climate targets, and to weigh the potential of SLCF emissions controls to improve air quality against the risk of overshooting. Ultimately, this work contributes to effort to clarify if there is an optimum strategy that minimises changes in climate hazards/societal impact.

For this project, you will use climate model experiments to ask questions at the intersection of climate change and air pollution, and you will ultimately design and run climate model experiments of your own.

The project looks for someone interested in developing expertise in climate modelling and atmospheric chemistry. This project is available on a full- or part-time basis. This project does not require field or laboratory work. You will have the opportunity to work closely with our extensive networks of UK and international collaborators, but travel can be minimised through use of videoconferencing.

Candidate Requirements

Applicants must have obtained, or be about to obtain, a First or Upper Second Class UK first degree, or the equivalent qualifications gained outside the UK, in chemistry or in a related discipline (biochemistry, biogeochemistry, environmental sciences).

How to Apply

Please make an online application for this project at the following page [How to apply | Study at Bristol | University of Bristol](#).

Funding

A full studentship will cover UK tuition fees, a training support fee and a stipend (£19,237p.a. in 2024/25, updated each year) for 3.5 years.

Getting in Contact

We encourage you to make an informal enquiry to Dr Paul Griffiths (paul.griffiths@bristol.ac.uk) if you have any queries or would like to discuss project.