



Postdoctoral Research Fellow in Observations and Modelling of Polar Aerosols at the Marine and Antarctic Research Centre for Innovation and Sustainability (MARIS), University of Cape Town

Preamble

MARIS is a partner in the EU Horizon 2020 project CRiceS “Climate relevant interactions and feedbacks: The key role of sea ice and snow in the polar and global climate system.” The goal of CRiceS is to contribute to a more precise understanding of the ocean-ice-snow-atmosphere system to deliver improved models that describe polar and global climate. The CRiceS project brings together 21 international research teams at the forefront of polar and global climate research.

About the Postdoctoral Fellowship

The Fellow will collate and analyze existing state-of-the-art coupled ocean-ice-atmosphere observations to study aerosol formation and clouds in the polar atmosphere. The Fellow will integrate data from campaign based, long-term, and autonomous observing platforms in the Southern Ocean to improve our understanding of processes (both physical and biogeochemical) that control ocean and ice emissions of aerosols and their precursor gases. The research outputs will be used to develop novel and improved model descriptions of polar emissions of aerosols and aerosol precursors within regional and global models (WRF-CHEM, Enviro-HIRLAM, UKCA, EC-Earth, and NorESM2) and the Fellow will be able to work closely with international collaborators who are leading the modelling efforts.

The research to be conducted by the Fellow will be under the general supervision of the Departmental Supervisor, Dr Katye Altieri at the University of Cape Town and the Fellow will be registered in the Department of Oceanography at UCT. The Fellow will be associated with MARIS, an interdisciplinary research grouping composed of multiple Departments at UCT. The Fellow will have the opportunity to engage collaboratively with other CRiceS team members within MARIS.

Key responsibilities

The Fellow must have research experience in one of the following areas: i) observational atmospheric chemistry, ii) polar aerosol and/or cloud observations, or iii) atmospheric chemistry or climate modelling at regional or global scales. A publication record of peer-reviewed articles pertaining to their research area is required. Knowledge of polar ocean and atmospheric biogeochemistry will be considered an advantage. The Fellow is expected to work independently but will also contribute to student supervision associated with the project and assist the PI (Dr Altieri) in liaising with the larger international project. The Fellow will have the opportunity to participate in international virtual and physical meetings, as well as the preparation of intermediate and annual scientific reports.

Eligibility

The Fellowship is open to any eligible person, preferably South African, who can carry out its objective. Possession of a PhD degree in a field aligned to the research, which has been obtained no more than five years ago, is a minimum requirement. Applicants previously employed in full-time academic positions will not be considered. This is a full-time appointment and therefore the Fellow may not hold any other job. For non-South African applicants, the appointment will be subject to a study visa. The successful applicant will be required to comply with UCT's approved policies, procedures, and practices for the postdoctoral sector.

Value and tenure

The value of the Fellowship award is R360 000 per annum with 5% increase per annum; with no additional benefits. Postdoctoral Research Fellowships are non-taxable, meaning that Fellowships must be granted without fringe benefits and no services are required of the successful candidate in return for the Fellowship beyond the agreed research activity. The Fellowship is offered for 12 months, renewable annually, up to a maximum of three years.

The Postdoctoral Fellow will be hosted at the Department of Oceanography in the UCT Marine Biogeochemistry Laboratory and will closely collaborate with other CRiceS researchers and MARIS participants. Given the current COVID-19 global emergency, the commencement date for this appointment in South Africa remains open. The possibility of remote working will be explored to allow for an earlier start date.

Conditions of Award

- i. The postdoctoral research fellowship is available only to individuals who have achieved the doctoral degree within the past 5 years
- ii. Applicants may not previously (since achieving the PhD) have held full-time professional or academic positions
- iii. No services beyond the scope of the research fellowship are required in return for the Postdoctoral Fellowship award
- iv. No benefits or travel allowances are included in the value of the fellowship
- v. The successful incumbent must comply with the University's approved policies, procedures and practices for the postdoctoral sector.

Applications

To apply, send an email application to Dr. Katie Altieri (katie.altieri@uct.ac.za) with the subject "CRiceS Postdoctoral Fellow" and attach the following documents:

1. cover letter describing research experience, interests, and collaborative experience
2. academic curriculum vitae with list of publications and conference presentations included
3. certified transcripts of academic qualifications at the tertiary level
4. contact details for 2 people willing to write reference letters

Applications will be accepted until the position is filled.

The University of Cape Town reserves the right to change the conditions of award or to make no awards at all.