



CAREER OPPORTUNITY

Postdoctoral position in Ocean biogeochemistry

About the Position

The Southern Ocean Carbon-Climate Observatory (SOCCO) hosted by the CSIR and in partnership with MARiS at UCT Oceanography is looking for a postdoctoral candidate in biogeochemical oceanography.

Changes to the biological carbon pump are considered to have the potential to be one of the most important positive feedbacks on climate change, however, the processes and dynamics that define the direction, the magnitude and the rates of change (i.e.: climate sensitivity) are not well understood. Part of our lack of understanding of this complex problem lies in the chronic under-sampling of the Southern Ocean and inappropriate parameterisation of biological processes in Earth System Models (ESM's) that do not reflect the unique characteristics of Southern Ocean phytoplankton. SOCCO research addresses this challenge by deriving regionally robust information from observations that allow new insight into Southern Ocean ecosystem function. This multifaceted approach aims to 1) characterise the phytoplankton population and drivers of variability of primary production and carbon export efficiency, 2) investigate the impacts of ocean acidification from a multi driver context and 3) develop and apply ocean colour algorithms for insight into intra-seasonal and inter-annual variability and long-term trends. SOCCO is looking for a biogeochemical oceanographer with the relevant skills and experience that can contribute to this important research area towards strengthening the biogeochemical team.

The candidate will be expected to carry out independent research on oceanographic research voyages, use large satellite and in situ datasets and collaborate with the team to build human capital and produce scientific publications.

The opportunity will be based at the CSIR campus in Rosebank, Cape Town.

For more information about SOCCO please see <http://www.socco.org.za>, @SOCCO_Science, Facebook: Southern Ocean Carbon and Climate Observatory.

Focus area:

Biogeochemical Oceanography: nutrient cycling, primary production, ocean acidification, carbon export

Requirements:

- A PhD degree within the realm of biogeochemical oceanography.
- Extensive sea-going experience.
- Ability to conduct original research in biogeochemistry (including the design and execution of field experiments), with a focus on investigating the role of marine organisms in the biological carbon pump.
- Analyse and interpret data using statistical techniques.
- Ability to use a programming language for analysis and visualisation (e.g. Python)
- Desire to go to sea and to work and collaborate as a team and train students and researchers.
- Willingness to collaborate with an interdisciplinary team to contribute to broader projects related to oceanic biogeochemistry.
- Publish research findings in peer-reviewed journals and present at conferences.

- Compliance with the University's official definition, specifically that the PostDoc fellow has achieved his/her PhD degree within 5 years of enrolment.
- Prospective Postdoc fellow has not previously held comprehensive professional or permanent academic positions.

Applicants must attach the following documents:

- CV (highlighting relevant skills and experience).
- Cover letter.
- Copies of academic transcripts, tertiary qualifications and ID.

Closing date: 19th of February 2024.