

Postdoctoral Research Fellowship at the Marine and Antarctic Research centre for Innovation and Sustainability (MARIS), University of Cape Town, South Africa

Preamble

MARIS is the new dedicated Centre for interdisciplinary marine research at the University of Cape Town. It brings together the expertise of multiple departments, namely Oceanography and Biological Sciences in the Faculty of Science and the Chemical, Civil and Electrical Engineering Departments in the Faculty of Engineering and the Built Environment.

Purpose

MARIS is a consortium partner of the three-year project AtlantECO (<https://www.atlanteco.eu/>), funded by the European Commission. The project aims to develop and apply a novel, unifying framework that provides knowledge-based resources for a better understanding and management of the Atlantic Ocean and its ecosystem services.

Call for applications

An opportunity exists for a Postdoctoral Research Fellow to contribute to the project's Work Package 6 "Advances in Model Predictability". The Fellow's research will focus on implementing and running a regional nested model based on CROCO and coupled with the biogeochemical models PISCES and/or BFM to resolve the small-scale transport processes along the Southern Benguela upwelling regions. The model will be coupled to different types of boundary conditions produced within the project and used to study the horizontal and vertical connectivity between adjacent regions and the benthic-pelagic system. The Southern Benguela is one of the target regions to develop the Ocean Health Index, and the modelling results will be used to construct the policy engagement study. The Fellow's research will contribute specifically to the development of an advanced coupling method between the physics and the biogeochemistry, based on a novel Lagrangian approach proposed by Paparella and Vichi (2020).

Conditions of Award

- Postdoctoral Research Fellows are individuals who undertake research and gain professional experience for a future academic career, under the supervision and mentorship of a Principal Investigator (PI)
- The purpose of the Postdoctoral Research Fellowship is to provide an opportunity for experiential learning in research, which may serve as a path for further academic and professional development
- Postdoctoral Research Fellowships are available only to individuals who have achieved the doctoral degree within the past 5 years
- applicants may not previously have held full-time permanent professional or academic posts
- no benefits or allowances are included in the value of the Fellowship
- Fellowships are negotiable up to 2 years after which extension of tenure may be considered for up to a maximum of five years. A sixth year of registration cannot be considered.
- the successful incumbent will be required to comply with the University's approved policies, procedures and practises for the Postdoctoral sector.

The University of Cape Town reserves the right to disqualify ineligible, incomplete and/or inappropriate applications and to change the conditions of award or to make no awards at all.

Value and tenure

The value of the Fellowship is between R300,000 and R400,000 per annum, according to experience. The Fellowship is compliant with SARS policies and rules and is therefore exempt from taxation, meaning that Postdoctoral Research 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 tenable for **one year, renewable annually for another two years i.e. a total of three years**, depending on academic progress and availability of funds.

Academic Criteria

The candidate must have a completed PhD by the appointment start date and the Fellowship is available only to individuals who have achieved the doctoral degree within the past 5 years.

The candidate must have experience with the implementation of regional numerical models, data analysis and visualisation. A theoretical understanding of oceanographic processes will be considered a plus. Experience with the use of super-computers and analysis of parallel simulations is necessary. A publication record of at least one peer-reviewed article pertaining to ocean numerical modelling is required. Prior experience with the use of biogeochemical ocean models is preferred but not necessary. The candidate is expected to work both independently and collaboratively as a member of the interdisciplinary MARIS team, under the supervision of the PI, A/Prof Marcello Vichi, as well as in the framework of the international project. The candidate will be requested to attend project meetings either remotely or in person, depending on prevailing circumstances.

Application Requirements

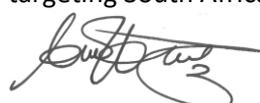
Applications will close on February 1st 2021, for an expected start date April 1st 2021. To apply, send an email to marcello.vichi@uct.ac.za with the subject "AtlantECO post-doc" and attach the following information:

1. a cover letter describing research experience, interests, and collaborative experience
2. a curriculum vitae including a list of publications
3. copies (or certified copies) of academic transcripts
4. contact information for two (2) academic referees who have taught, supervised or worked alongside you.

Selection Process

Eligible and complete applications will be considered by the Director of MARIS and a sub-committee.

MARIS is committed to equity and to the development of local expertise. This position is particularly targeting South African and African candidates with proven experience in numerical modelling.



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