

ANNOUNCEMENT FOR THE OPENING OF A SELECTION OF A RESEARCH GRANT– (BI) 1 VACANCY

Reference: 2023_106_BI_MAPS_OCE

A competition is open for the attribution of 1 research Grant in the framework of the project MAPS – “Measurements and modeling of the atmospheric and oceanic boundary layers at the northern Antarctic Peninsula during the Year of Polar Prediction Special observing periods”, reference 2022.09201.PTDC, supported by Portuguese Foundation for the Science and Technology (FCT), according to the following conditions:

1. Scientific area: Physical oceanography, ocean fluid dynamics, ocean engineering;

2. Admission requirements: Any national, foreign or stateless candidate(s) who hold a Bachelor degree in Physical Oceanography, Ocean Dynamics, Ocean Engineering or related fields, and able to be enrolled in a master program at the time of application, with the aim of consolidating his/her scientific training through the development of research work leading to the award of the respective MSc degree, or in non-degree course integrated in the educational project of a higher education institution, developed in association or cooperation with one or several R&D units, if already graduate. If the applicant is not yet enrolled, she/he must meet the requirements to register; enrolment will be mandatory and proof necessary only at the moment of scholarship contracting.

Note: In the case of enrolment in courses that do not confer academic degree, the research grant can only be awarded to those who do not exceed, with the signing of the research grant contract in question, including possible renewals, an accumulated period of two years in this type of grant, consecutive or interpolated.

The candidate must have:

- i) Knowledge of programming languages for data analysis and visualation (Python, MATLAB, R or other);
- ii) Proficiency in English;

Preferred conditions are previous experience in: ocean numerical modelling or fluid mechanics modelling.

Academic degrees awarded by a foreign higher education institution must comply with the provisions of Decree-Law no. 66/2018 of 16th August, which approves the legal regime of recognition of academic degrees and diplomas of Higher Education, attributed by foreign higher education institutions, being any formalities established therein fulfilled only by the date of the contracting act.

The jury reserves the right to close the contest if none of the candidates match the desired profile.

3. Work plan: The candidate will be involved in implementation and validation of a fine resolution multigrid (two-way nesting) ocean wind- wave model centred on the Antarctic Peninsula. The state-

of-the-art WAVEWATCH-III will be used, covering the Southern Ocean with a computational grid south of 30 °S latitude and encircling Antarctica. Validation will be performed for both hindcast and forecast simulations by comparing model results with satellite data. For hindcast simulations, wind and ice cover forcing from the ERA5 reanalysis will be used. For forecast simulations, wind forcing data from the National Oceanic and Atmospheric Administration (NOAA) Operational Model Archive and Distribution System (NOMADS) project and the Antarctic Mesoscale Prediction System (AMPS) will be used. Hindcast simulations will be performed during Atmospheric River (AR) events identified during the Year of Polar Prediction (YOPP) campaigns. The analysis of the ocean waves will focus on the parameters of significant wave height, mean wave period, wave directional spreading, wave steepness, and whitecapping. The relationship between wind speed and whitecapping will be estimated during some specific AR events.

4. Legislation and official rules: Law nº.40/2004, 18th August (Research Fellowship Holder Statute) in its current version; Regulations for Studentships and Fellowships of the Fundação para a Ciência e a Tecnologia, I.P. and CIIMAR Grants Regulation.

5. Work place: The work will be carried out within the project at CIIMAR: Land-Ocean-Atmosphere Interactions research team, Edifício do Terminal de Cruzeiros do Porto de Leixões, Av. General Norton de Matos, s/n, 4450-208 Matosinhos, and Faculty Engineering, University of Porto (FEUP), Rua Dr. Roberto Frias s/n, 4200-465 Porto, under the scientific supervision of Prof Dr Paulo Avilez-Valente, Dr Isabel Iglesias, and Dr Irina Gorodetskaya.

6. Duration of the contract: Duration of six (6) months, starting in November 2023, under the regime of exclusive dedication, renewable up to legal terms.

7. Monthly salary: The monthly maintenance allowance is 930,98€, in agreement with the monthly maintenance stipend table of the grants directly attributed by FCT, I.P. within the country (https://www.fct.pt/wp-content/uploads/2023/02/Tabela-de-Valores-SMM_2023.pdf), by bank transfer payment. In addition to this allowance, the grantee will be covered by a personal accident insurance.

8. Selection methods: The ranking of candidates will be performed by an initial evaluation based on:

- A- Academic performance (Suitability of the degree and candidate's performance) – 40%;
- B- Experience and qualifications relevant to the proposed research area (Curricular units related to the topic of the proposal as well as experience in programming and/or numerical modeling) – 40%;
- C- Motivation letter – 20%.

The assessment process may include an interview for the top three candidates if they are separated by less than 10% according to the jury criteria. The interview will have a weight of 20% and the evaluation carried out previously will have a weight of 80%.

9. Composition of the jury selection:

President of the jury: Prof. Dr. Paulo Avilez-Valente

Vogal: Dra. Isabel Iglesias

Vogal: Dra. Irina Gorodetskaya

10. Form of advertising/notification of results: The final results of the evaluation will be send through a list sorting the candidates according to their attributed mark, by e-mail and available in CIIMAR website; in case of disagreement, the candidates have a 10-working day term in which to contest the decision, if he/she so wishes, as provided for in the *Código do Procedimento Administrativo* in a preliminary hearing setting. The jury reserves the right to not assign the contract depending on the quality of the applications.

11. Deadline for application and presentation of applications: The competition is open from **16/10/2023 until 27/10/2023**. The applications must be formalized, compulsorily, by sending the following documents:

- detailed Curriculum vitae;
- copy of the Bachelor degree certificates (including curricular information and grades);
- copy of the eligibility certificates, if applicable;
- evidence of enrollment in a master/integrated master program or non academic degree course, if applicable;
- motivation letter;
- contact e-mail address and phone number.

Applications must be sent by email to rh@ciimar.up.pt with a copy to irinag@ciimar.up.pt (MAPS project PI), with the offer reference in the subject: **2023_106_BI_MAPS_OCE**. Applications that **do not include all** the elements previously indicated will **not be considered**.

12. Non-discrimination and equal access policy: CIIMAR actively promotes a policy of non-discrimination and equal access, by which no candidate can be privileged, can benefit or be put in disadvantage, or can be deprived of any rights or duties based on their social or cultural background, ethnic group or race, age, sex, sexual orientation, marital status, family status, economic status, education, social condition, genetic assets, reduced work capacity, disability, chronic disease, nationality, territory of origin, language, religion, political or ideological beliefs and unionization.

As set forth by the Decree Law 29/2001, the candidate with disability has preference if equally classified, which prevails over any other legal preference. The candidates with disability must declare in their application, on their word of honor, their degree and type of disability, and the means of communication/expression that are to be used in the selection process, as provided by the above mentioned legal diploma.