414_24_ES_CVC_R2

Job Reference

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Position

Postdoctoral position on the role of atmospheric teleconnections in decadal prediction (R2)

Data de tancament

Dilluns, 30 Setembre, 2024
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About BSC

The Barcelona Supercomputing Center - Centro Nacional de Supercomputación (BSC-CNS) is the leading supercomputing center in Spain. It houses MareNostrum, one of the most powerful supercomputers in Europe, was a founding and hosting member of the former European HPC infrastructure PRACE (Partnership for Advanced Computing in Europe), and is now hosting entity for EuroHPC JU, the Joint Undertaking that leads large-scale investments and HPC provision in Europe. The mission of BSC is to research, develop and manage information technologies in order to facilitate scientific progress. BSC combines HPC service provision and R&D into both computer and computational science (life, earth and engineering sciences) under one roof, and currently has over 1000 staff from 60 countries.

Look at the BSC experience:
BSC-CNS YouTube Channel
Let's stay connected with BSC Folks!

We are particularly interested for this role in the strengths and lived experiences of women and underrepresented groups to help us avoid perpetuating biases and oversights in science and IT research. In instances of equal merit, the incorporation of the under-represented sex will be favoured.

We promote Equity, Diversity and Inclusion, fostering an environment where each and every one of us is appreciated for who we are, regardless of our differences.

If you consider that you do not meet all the requirements, we encourage you to continue applying for the job offer. We value diversity of experiences and skills, and you could bring unique perspectives to our team.

Context And Mission

This position is hosted by the Climate Variability and Change (CVC) Group within BSC's Earth Science Department. The CVC Group undertakes fundamental research to (1) understand climate variability and change, including for climate extremes, (2) investigate global biogeochemical dynamics, and the effectiveness and impacts of carbon removal technologies to mitigate climate change, (3) developing new Earth System modeling capabilities, including at ground-breaking resolutions and (4) improving our ability to forecast climate variations and biogeochemical dynamics from one month to multiple decades into the future, both at global and regional scales.

The applicant will join the climate prediction team to explore, in a multi-model ensemble of decadal predictions, how the representation of key teleconnection mechanisms in the North Atlantic region affects the predictive skill over Europe. The work will also involve the application of process-based constrains that represent the key mechanisms identified before to improve the predictive skill of the multi-model ensemble. This work will contribute to the European project Impetus4Change.

Key Duties

- Exploring the representation of key North Atlantic teleconnection mechanisms in a multi-model decadal prediction ensemble
- Investigating the link between European predictive skill, the realism of the teleconnection mechanisms, and the signal-to-noise issues affecting the North Atlantic
- Developing process-based constrained multi-model predictions
- Contribute to project deliverables

Requirements

- Education
    - Having a PhD degree in computer science, physics, engineering, mathematics or a related discipline is required

- Essential Knowledge and Professional Experience
    - Experience with the statistical analysis of climate data, using commonly used programming languages and environments (such as R, Python, Fortran).
    - Experience with UNIX/LINUX environments and scripting languages.

- Additional Knowledge and Professional Experience
    - Previous experience in scientific python/R packages will be valued.
    - A good mathematical and statistical background is desirable.
    - Experience with climate modeling and prediction will be an asset.
    - Fluency in English.

- Competences
    - Excellent written and verbal communication skills.
    - Ability to work both independently and within a team.
    - Capacity to take initiative, prioritize tasks and work under set deadlines.

Conditions

- The position will be located at BSC within the Earth Sciences Department
- We offer a full-time contract (37.5h/week), a good working environment, a highly stimulating environment with state-of-the-art infrastructure, flexible working hours, extensive training plan, restaurant tickets, private health insurance, support to the relocation procedures
- Duration: Open-ended contract due to technical and scientific activities linked to the project and budget duration
- Holidays: 23 paid vacation days plus 24th and 31st of December per our collective agreement
- Salary: we offer a competitive salary commensurate with the qualifications and experience of the candidate and according to the cost of living in Barcelona
- Starting date: 01/10/2024

Applications procedure and process

All applications must be made through BSC website and contain:

- A full CV in English including contact details
- A Cover Letter with a statement of interest in English, including two contacts for further references - Applications without this document will not be considered

In accordance with the OTM-R principles, a gender-balanced recruitment panel is formed for every vacancy at the beginning of the process. After reviewing the content of the applications, the panel will start the interviews, with at least one technical and one administrative interview. A profile questionnaire as well as a technical exercise may be required during the process.

The panel will make a final decision and all candidates who had contacts with them will receive a feedback with details on the acceptance or rejection of their profile.

At BSC we are seeking continuous improvement in our recruitment processes, for any suggestions or feedback/complaints about our Recruitment Processes, please contact recruitment [at] bsc [dot] es.

For more information follow this link

Deadline

The vacancy will remain open until a suitable candidate has been hired. Applications will be regularly reviewed and potential candidates will be contacted.

OTM-R principles for selection processes

BSC-CNS is committed to the principles of the Code of Conduct for the Recruitment of Researchers of the European Commission and the Open, Transparent and Merit-based Recruitment principles (OTM-R). This is applied for any potential candidate in all our processes, for example by creating gender-balanced recruitment panels and recognizing career breaks etc.
BSC-CNS is an equal opportunity employer committed to diversity and inclusion. We are pleased to consider all qualified applicants for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability or any other basis protected by applicable state or local law.
For more information follow this link