# Position Details

## CSIRO Early Research Career (CERC) Postdoctoral Fellowship– CSOF4

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| The following information is for applicants |
| Advertised Job Title | CSIRO Postdoctoral Fellowship in Southern Ocean Circulation and Water Mass Formation |
| Job Reference | 67877 |
| Tenure | Specified Term of 2 years Full-time  |
| Salary Range | AU$86,434 to AU$94,679 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Hobart |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents
* Australian temporary residents currently residing in Australia (visa sponsorship may be provided to eligible candidates)
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| Position reports to the | Southern Ocean Team Leader |
| Client Focus – Internal | 5% |
| Client Focus – External | 95% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Steve Rintoul via email at steve.rintoul@csiro.au or phone 03 6232 5393 |
| How to apply | Apply online at <https://jobs.csiro.au/> Internal applicants please apply via **Jobs Central**If you experience difficulties when applying, please email careers.online@csiro.au or call 1300 984 220. |

### Role Overview

**CSIRO Early Research Career (CERC) Postdoctoral Fellowships** provide opportunities to scientists and engineers who have completed their doctorate and have less than three years relevant postdoctoral work experience. These fellowships aim to develop the next generation of future leaders of the innovation system through:

* A differentiated career development program to deliver capability excellence and breadth across all facets of the national innovation system.
* Research training via strategic research and development projects with a clear focus that will deliver real impact through science and engineering excellence;
* An innovative culture supporting the development and demonstration of original thinking and expertise leading to peer-recognition; and
* Opportunities to develop skills and experience in collaborative research teams to effectively work within national and global multi/transdisciplinary and multi-stakeholder environments.

**The Postdoctoral Fellow will be appointed for two years or part time equivalent, with a possible extension for a third year depending on funding and alignment with research strategy.**

This position is within the Centre for Southern Hemisphere Oceans Research (CSHOR), which is a joint initiative between the Qingdao National Laboratory for Marine Science (China), CSIRO, the University of New South Wales and the University of Tasmania ( <https://cshor.csiro.au/> ). The CSHOR objective is to improve understanding of how the southern hemisphere oceans influence global and regional climate, and how the climate influences these oceans. By tackling the most fundamental questions in southern hemisphere ocean climate research, CSHOR aims to inform an effective response to the challenges of climate change and variability. The Postdoctoral Fellow will work in the “Southern Ocean Dynamics, Circulation and Water Mass Formation” project led by Prof Matthew England at UNSW and Dr Steve Rintoul at CSIRO, and work closely with scientists in the “Southern Ocean Observations and Change” project led by Dr Rintoul. The Postdoctoral Fellow will be based at CSIRO Oceans & Atmosphere in Hobart.

The Southern Ocean Postdoctoral Fellow will use ocean observations and numerical simulations to advance understanding of the circulation of the Southern Ocean and its role in the climate system. Areas of particular interest to CSHOR include the overturning circulation and its sensitivity to change; water mass formation and subduction; mechanisms responsible for variability and change in the abyssal ocean; and the dynamics and variability of the fronts of the Antarctic Circumpolar Current. For this position, we are particularly interested in candidates with the skills and interest to use unique data sets collected by CSHOR and partners to develop new insights into the circulation of the Southern Ocean and its influence on the climate system. These data sets include the first array of Deep Argo floats deployed in Antarctic abyssal waters; repeat hydrography and tracer measurements spanning three decades; and floats deployed on the Antarctic continental shelf to provide the first year-round, full-depth measurements of dense shelf water formation.

### Duties and Key Result Areas:

The CERC Postdoctoral Fellow will:

* Carry out innovative, impactful research of strategic importance to CSHOR and CSIRO.
* Use ocean observations, numerical simulations and dynamical theory to explore and understand Southern Ocean dynamics and variability, including the impact of the Southern Ocean on regional and global climate.
* Produce high quality scientific papers suitable for publication in peer-reviewed journals and present your work at scientific conferences.
* Contribute to the development of innovative concepts and ideas for further research.
* Contribute to the effective functioning of the research team and help deliver CSIRO’s organisational objectives and plans.
* Work collaboratively with colleagues within your team, the Oceans & Atmosphere business unit, across CSIRO, and with national and international collaborators.
* Communicate effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Undertake an appropriate training and development program developed by CSIRO.
* Other duties as directed.

[**The CERC Postdoctoral Fellow learning and development program**](http://www.csiro.au/en/Careers/Student-and-graduate-programs/Postdoctoral-fellowships)is developed between the CERC Postdoctoral Fellow and their CSIRO supervisor. The program will focus on enhancing the Fellows’ capabilities to the level expected of an independent researcher and will include on-the-job and course-based development encompassing:

* Discipline-specific techniques and protocols
* Professional growth
* Project management
* Communication and influencing skills
* Working and collaborating with others

## **Required Competencies:**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.
* **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.
* **Resource Management/Leadership:** Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **Adaptability:**Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

## **Selection Criteria**

#### Essential

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

1. Education/Qualifications**:** A doctorate (or will shortly satisfy the requirements of a PhD) in a relevant discipline area, such as physical oceanography and climate sciencewith a strong background and substantial experience in the analysis of ocean observations and/or model results.

***Please note:*** *To be eligible for this role you must have at least one year of postdoctoral research experience, but no more than six full-time equivalent years of experience since confirmation of your doctorate at the end of this postdoctoral term.*

1. **Demonstrated high level understanding of ocean dynamics and the ocean’s role in climate.**
2. Demonstrated skills in analysis and interpretation of oceanographic or related data sets, including a strong grounding in statistical methods, computer programming and data synthesis.
3. Demonstrated **ability to carry out original, independent, and innovative research with a minimum of direct supervision.**
4. **High level written and oral communication skills, as demonstrated by a record of publications in quality scientific journals and of presentations to diverse audiences.**
5. Demonstrated **ability to work effectively as part of a diverse team.**

## **Desirable:**

1. Knowledge of Southern Ocean climate processes and dynamics.
2. Experience with analysis of observations or numerical simulations of the ocean and/or atmosphere.
3. Interest and ability to design and carry out oceanographic field programs.

To be appointed as a CERC Postdoctoral Fellow within CSIRO, candidates will be expected to commence employment by December 2020/January 2021.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

* The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test).- https://ielts.com.au/

**Our value proposition**

We want CERC Postdoc Fellows to join our world class science, engineering and digital teams to solve big, complex problems that make a real difference to the future of Australia and the world.

You'll get to work with some of the most talented minds in their fields, not just in Australia, but in the world. At CSIRO, we spark off each other, learn from each other, trust each other and collaborate closely to achieve more than we could individually.

CSIRO Early Research Career (CERC) Postdoctoral Fellow Experience Employee Value Proposition (EVP). Find out more [here](https://www.csiro.au/en/careers/postdoctoral-fellowships)!

## **About CSIRO:**

We solve the greatest challenges through innovative science and technology. To find out more visit us [online](http://www.csiro.au/)!

Find out more about CSIRO [Oceans and Atmosphere](https://www.csiro.au/en/Research/OandA)