



RESEARCH FELLOW

DEPARTMENT/UNIT	School of Earth, Atmosphere and Environment
FACULTY/DIVISION	Faculty of Science
CLASSIFICATION	Level A
DESIGNATED CAMPUS OR LOCATION	Clayton campus

ORGANISATIONAL CONTEXT

Everyone needs a platform to launch a satisfying career. At **Monash**, we give you the space and support to take your career in all kinds of exciting new directions. You'll have access to quality research, infrastructure and learning facilities, opportunities to collaborate internationally, as well as the grants you'll need to publish your work. We're a university full of energetic and enthusiastic minds, driven to challenge what's expected, expand what we know, and learn from other inspiring, empowering thinkers. Discover more at www.monash.edu.

The **Faculty of Science** contributes to the University's goals via research, teaching and partnerships with industry, government and individual supporters. Our five Schools cover a large and diverse range of disciplines in undergraduate and postgraduate courses. Ten Schools from other university faculties contribute to science teaching at all levels, allowing students to choose their studies from physical, biological, biomedical, behavioural, environmental, mathematical and computer sciences. The research in the Faculty of Science is carried out by world-class researchers. Their work spans the theoretical to the applied, contributes to new knowledge and technologies, and challenges how we interact with the world. To learn more about the Faculty of Science, please visit our website: www.monash.edu/science/.

The **School of Earth, Atmosphere and Environment** is located in the Faculty of Science (www.monash.edu/science/schools/earth-atmosphere-environment) and has close collaborations with other Schools, such as Physics, Chemistry and Biology, and with other Faculties, such as Business and Economics, Arts, and Engineering. The School has strong links with outside institutions such as CSIRO, the Bureau of Meteorology, the Australian Synchrotron, and Geoscience Australia as well as a large number of research institutes and universities globally. The School is highly multidisciplinary with very active groups in Dynamical Meteorology, Climate Dynamics, Cloud Processes, Turbulence and Atmospheric Convection, Biosphere-Atmosphere Interaction, Climate Impacts and Adaptation, Atmospheric Modelling, Urban Climate, Geodynamics, Tectonics and Structural Geology, Environmental Mineralogy, Synchrotron Geoscience and Geochemistry, Hydrogeology and Hydrochemistry, Economic Geology and Petrology, Soil Science, Environmental Earth Science, Applied Geophysics, Geomorphology, GIS and Remote Sensing.

This position is fully funded by the Australian Research Council's Centre of Excellence for Climate Extremes (CLEX) and the incumbent will contribute to and benefit from being a part of the CLEX community. The Centre's research agenda encompasses interconnected research programs focused on Weather and Climate Interactions, Drought, Attribution and Risk, and Ocean Extremes. CLEX is a major seven-year initiative funded by the Australian Research Council. The Centre is led by UNSW Sydney and partners with Monash, The University of Melbourne, The Australian National University and The University of Tasmania alongside a suite of national and international partner organisations. Climate extremes are the confluence of high impact weather and climate variability. The Centre works to improve our understanding of the processes that trigger or enhance extremes and build this understanding into our modelling systems. The improved predictions of climate extremes will help Australia cope with extremes now and in the future. This position sits within the CLEX Attribution and Risk research team and will collaborate with senior and postdoctoral researchers in that team and other CLEX programs such as the Weather and Climate Interactions and Modelling teams. The ARC Centre of Excellence for Climate Extremes provides a supportive and enriching workplace for its staff and students through its strong commitment to equity, diversity and inclusion and wellbeing initiatives.

POSITION PURPOSE

A Level A research-only academic is expected to contribute towards the research effort of the University and to develop their research expertise through the pursuit of defined projects relevant to the particular field of research.

As part of the Attribution and Risk Research Program (RP) of CLEX this position will investigate tropical to extratropical interactions in terms of the weather features, such as Rossby wave breaking and dry fronts, through which many high-impact extreme events are realised. The successful applicant will investigate the ability of current CMIP6 class and higher resolution climate models to capture these processes e.g. the connections between tropical convection and extratropical waves and how these processes have and will change in response to anthropogenic climate change.

Reporting Line: The position reports to the Chief Investigator

Supervisory Responsibilities: Not applicable

Financial Delegation: Not applicable

Budgetary Responsibilities: Not applicable

KEY RESPONSIBILITIES

Specific duties required of the Research Fellow may include:

1. The conduct of research under limited supervision as a member of the cross-institutional CLEX team and the production or contribution to the production of conference and seminar papers and publications from that research
2. Involvement in professional activities including active participation in CLEX events and attendance at conferences and seminars in the field of expertise
3. Contributions to achieving the overarching goals of CLEX, including to research programs and to organisation and participation in other activities as appropriate.
4. Limited administrative functions primarily connected with CLEX research activities
5. With the support of the CLEX Knowledge Brokerage Team, communicate and partner with stakeholders outside academia
6. Occasional contributions to teaching where they directly relate to their CLEX research project(s)

7. Attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at CLEX, departmental, school and/or faculty meetings and/or membership of a limited number of committees
8. Advice within the field of the staff member's research to postgraduate students
9. Other duties as directed from time to time

KEY SELECTION CRITERIA

Education/Qualifications

1. The appointee will have:
 - A doctoral qualification in atmospheric or climate science or a closely related discipline or equivalent accreditation and standing

Knowledge and Skills

2. A strong understanding of atmospheric dynamics and/or coupled atmosphere-ocean dynamics
3. Demonstrated experience in the analysis of large data sets, ideally with experience in high performance computing environments.
4. Demonstrated analytical and manuscript preparation skills; including an emerging track record of refereed research publications
5. Ability to solve complex problems by using discretion, innovation and the exercise diagnostic skills and/or expertise
6. Well-developed planning and organisational skills, with the ability to prioritise multiple tasks and set and meet deadlines
7. Excellent written communication and verbal communication skills with proven ability to produce clear, succinct reports and scientific documents
8. Demonstrated experience or potential capacity to engage with stakeholders outside academia, such as Government agencies, private businesses, NGOs, schools and others
9. A demonstrated awareness of the principles of confidentiality, privacy and information handling
10. A demonstrated capacity to work in a collegiate manner with other staff in the workplace
11. Demonstrated computer and programming literacy and proficiency in the production of high-level work using software relevant to meteorological analysis and visualisation, with the capability and willingness to learn new packages as appropriate

OTHER JOB RELATED INFORMATION

- Travel to other campuses of the University and interstate or international partners of CLEX may be required
- There may be a requirement to work additional hours from time to time
- There may be peak periods of work during which taking of leave may be restricted

GOVERNANCE

Monash University expects staff to appropriately balance risk and reward in a manner that is sustainable to its long-term future, contribute to a culture of honesty and integrity, and provide an environment that is safe, secure and inclusive. Ensure you are aware of and adhere to University policies relevant to the duties undertaken and the values of the University. This is a standard which the University sees as the benchmark for all of its activities in Australia and internationally.