RESEARCH FELLOW (WEATHER-CLIMATE CONNECTION)

DEPARTMENT/UNIT: School of Earth, Atmosphere and Environment

FACULTY/DIVISION: Faculty of Science

CLASSIFICATION: Level A

WORK 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 (https://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 Crustal Evolution, Tectonics and Structural Geology, Geodynamics, Environmental Mineralogy, Synchrotron Geoscience and Geochemistry, Economic Geology, Petrology, and Applied Geophysics, as well as groups in the Atmospheric and Environmental Sciences.

The working environment is the Atmosphere and Climate group in the School of Earth, Atmosphere and Environment. The particular strengths of the group can be found at https://www.monash.edu/science/schools/earth-atmosphere-environment/research.
This group forms part of the **ARC Centre of Excellence for Climate Extremes** (see [climateextremes.org.au](http://climateextremes.org.au)). The ARC Centre of Excellence for Climate Extremes is a major 7-year initiative supported by the Australian Research Council. It is a consortium of five Australian universities with a suite of outstanding national and international Partner Organisations as collaborators. The Centre of Excellence research agenda encompasses interconnected research programs focused on Heatwaves, Rainfall, Drought and Variability in the Tropics and Extratropics.

The School of Earth, Atmosphere and Environment will provide a supportive and enriching workplace for Early Career Researchers. In particular, the School has a strong commitment to equity, diversity and inclusion.

**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 Atmospheric Science team of the School of Earth, Atmosphere and Environment, the successful candidate will investigate the weather-climate connection over the wider Australian regions. Specifically, they will develop and apply diagnostic tools for the identification of weather features, such as fronts, convergence lines and cyclones. They will relate the occurrence of such features to the time evolution of large-scale energy and moisture budgets over different regions of the Australian continent to elucidate how weather integrates into climate. Finally, they will evaluate the ability of modern climate models to simulate the observed weather-climate connections and make recommendations for both model applications and model development.

**Reporting Line:** The position reports to a professor

**Supervisory Responsibilities:** Not applicable

**Financial Delegation:** Not applicable

**Budgetary Responsibilities:** Not applicable

**KEY RESPONSIBILITIES**

Specific duties required of a Level A research-only academic may include:

1. The conduct of research under limited supervision either as a member of a team or, where appropriate, independently and the production or contribution to the production of conference and seminar papers and publications from that research

2. Involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise

3. Limited administrative functions primarily connected with the area of research of the academic

4. Development of a limited amount of research-related material for teaching or other purposes with appropriate guidance from other staff

5. Occasional contributions to teaching in relation to their research project(s)

6. Attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at departmental, school and/or faculty meetings and/or membership of a limited number of committees

7. Advice within the field of the staff member’s research to postgraduate students
KEY SELECTION CRITERIA

Education/Qualifications
1. The appointee will have:
   - A doctoral degree in atmospheric science or a related field

Knowledge and Skills
2. Demonstrated ability to conduct high-quality research in atmospheric science, or a related field, using a variety of approaches including modelling, analysis of large datasets, and/or theoretical development
3. Demonstrated computer literacy and programming skills in a major analytics and visualisation package
4. Demonstrated analytical and manuscript preparation skills; including a 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 documents
8. A demonstrated awareness of the principles of confidentiality, privacy and information handling
9. A demonstrated capacity to work in a collegiate manner with other staff in the workplace

OTHER JOB RELATED INFORMATION
- Travel to other campuses of the University 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.