



# 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

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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](http://www.monash.edu).

The five Schools of the **Faculty of Science** offer 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 Faculty of Science has a strong research reputation. The Faculty's research 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](http://www.monash.edu/science).

Through leadership in research and education, the **School of Earth, Atmosphere and Environment** aims to find environmental solutions for society and the planet. The school is located in the Faculty of Science ([www.monash.edu/science/schools/earth-atmosphere-environment](http://www.monash.edu/science/schools/earth-atmosphere-environment)) and has close collaborations with Biology, Chemistry, Mathematics and Physics, and with other Faculties, such as Arts (involving co-delivery of the undergraduate Geography programme), Business and Economics, and Engineering. The school hosts very active groups in Atmospheric/Climate Sciences, Physical Geography/Environment, and Geology/Geosciences. The school is a major node of the ARC Centre of Excellence in Climate Extremes (CLEX), and Securing Antarctica's Environmental Future (SAEF), an ARC Special Research Initiative in Excellence in Antarctic Science. Facilities include infrastructure to support fieldwork, and world class geochemistry laboratories for elemental, stable isotope, radioisotope analysis of waters, soils and environmental materials, environmental DNA, and a preparation laboratory for terrestrial cosmogenic nuclides. The School hosts the Monash Drone Discovery Platform, and groups within the school have established collaborations with the National Computational Infrastructure, and the Australian Synchrotron (located adjacent to Monash Clayton). The School has strong links with outside institutions such as Federal and State Government agencies, CSIRO, the Bureau of Meteorology, Australia's climate simulator (ACCESS NRI), the Australian Antarctic Division, AuScope, and Geoscience Australia, as well as a large number of research institutes and universities globally.

## POSITION PURPOSE

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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.

The Research Fellow will be a key member of SAEF's *Theme 1: Climate Processes and Change*, investigating precipitation processes over Antarctica and the Southern Ocean. Research will include making and analysing field observations, including dual-polarized radar retrievals from the R/V Investigator and RSV Nuyina with supporting analysis from satellite observations and numerical simulations.

**Reporting Line:** The position reports to the Professor, School of Earth, Atmosphere and Environment

**Supervisory Responsibilities:** Not applicable

**Financial Delegation:** Not applicable

**Budgetary Responsibilities:** Not applicable

## KEY RESPONSIBILITIES

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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. Experimental design and operation of advanced laboratory and technical equipment or conduct of advanced research procedures
7. 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
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

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### Education/Qualifications

1. The appointee will have:
  - A doctoral qualification in atmospheric science or a closely related field or equivalent accreditation and standing, with evidence of an emerging track record of refereed research publications.

### Knowledge and Skills

2. A strong understanding of cloud dynamics and microphysics including the development of precipitation

3. Demonstrated experience in undertaking meteorological fieldwork and the analysis of field observations of precipitation, including radar retrievals, supported by the analysis of satellite products
4. Demonstrated experience in analysing large datasets, with high-level expertise in scientific programming and visualization (e.g. Python, Fortran) and High-Performance Computing
5. Independent problem-solving skills and evidence of critical scientific thinking
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**

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- 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**

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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.