

RESEARCH FELLOW

DEPARTMENT/UNIT	School of Mathematics
FACULTY/DIVISION	Faculty of Science
CLASSIFICATION	Level A
DESIGNATED CAMPUS OR LOCATION	Clayton campus

ORGANISATIONAL CONTEXT

At [Monash](#), work feels different. There's a sense of belonging, from contributing to something groundbreaking – a place where great things happen. You know you're part of something special and purposeful because, like Monash, your ambitions drive you to make change.

We have a clear purpose to deliver ground-breaking intensive research; a world-class education; a global ecosystem of enterprise – and we activate these to address some of the [challenges](#) of the age, Climate Change, Thriving Communities and Geopolitical Security.

We welcome and value difference and [diversity](#). When you come to work, you can be yourself, be a change-maker and develop your career in exciting ways with curious, energetic, inspiring and committed people and teams driven to make an impact – just like you.

Together with our [commitment to academic freedom](#), you will have access to quality research facilities, infrastructure, world class teaching spaces, and international collaboration opportunities.

We champion an [inclusive workplace culture](#) for our staff regardless of ethnicity or cultural background. We have also worked to improve [gender equality](#) for more than 30 years. Join the pursuit of our purpose to build a better future for ourselves and our communities – [#Changelt](#) with us.

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.

The **School of Mathematics** (www.monash.edu/science/schools/school-of-mathematics) is one of the largest of the five Schools in the Faculty, and has close working collaborations with other Schools/Departments such as Physics and Astronomy, Data Futures, and Earth, Atmosphere and Environment, and other faculties such as Business and Economics, Arts, Medicine, Information Technology and Engineering. The School has strong links with outside institutions such as CSIRO, the Defence Science and Technology Organisation, and the National Australia Bank and a large number of research institutes and universities around the world.

The School is multidisciplinary with very active groups in algebra and discrete mathematics, analysis and geometry, topology, applied mathematics, financial mathematics, fluid dynamics, statistics and stochastic processes, numerical analysis and scientific computing, PDEs, operations research, optimisation, machine learning, and mathematical biology. The School provides undergraduate teaching for students in the Faculties of Science, Engineering and Information Technology; as well as postgraduate training in its key areas of research. The School has approximately 60 Academic and Research staff, 150 Teaching Associates, 6 Professional staff, 60 PhD and 60 Masters Students.

Monash and the Faculty of Science values staff diversity and champions inclusive practices. We are committed to equitable decision making and apply the principles of [achievement relative to opportunity](#) in our selection processes.

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.

The Research Fellow will work on the research project *Optimal shapes in geometry and physics: Isoperimetry in modern analysis*, investigating isoperimetry from the point of view of partial differential equations, geometric analysis, eigenvalue estimates, and differential geometry. The project is supported by an ARC Discovery Project

Reporting Line: The position reports to the Senior Lecturer, School of Mathematics

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. Occasional contributions to teaching program as determined by the requirements of the School
5. 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
6. Advice within the field of the staff member's research to postgraduate and honours students

7. Other duties as directed from time to time

KEY SELECTION CRITERIA

Education/Qualifications

1. The appointee will have:
 - A doctoral qualification in Mathematics.

Knowledge and Skills

2. Strong background in analysis with application to partial differential equations
3. Demonstrated capacity for the preparation of refereed research publications, commensurate with the career of the applicant
4. Ability to give guidance to and work with honours or postgraduate students within the discipline
5. The ability to work both independently in a research environment and as part of a research team
6. High level organisational skills, with demonstrated capacity to establish and achieve goals
7. Excellent written and oral communication skills
8. 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
- A current satisfactory Working With Children Check is required

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.