MONASH University

Position description

Research Fellow

Department/Unit	School of Mathematical Sciences
Faculty/Division	Faculty of Science
Classification (salary rates)	Level A
Work location	Clayton campus
Date document created or updated	February 2017

Organisational context

Monash University is a university of transformation, progress and optimism. Our people are out most valued asset, with our academics among the best in the world and our professional staff revolutionising the way we operate as an organisation. For more information about our University and our exciting future, please visit 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 Mathematical Sciences** is one of the largest of the six Schools in the Faculty, and has close working collaborations with other Schools/Departments such as Physics, Geosciences, Geography, Computer Science; and other faculties such as Business and Economics, Arts, Medicine, IT and Engineering. The School has strong links with outside institutions such as CSIRO, the Bureau of Meteorology, the Defence Science and Technology Organisation, and the National Australia Bank and a large number of research institutes and universities around the world.

Position purpose

The Level A academic will conduct research at the School of Mathematical Sciences at Monash University, under the guidance of a senior academic within the School. The research is conducted within an Australian Research Council Discovery Project on Discrete Functional Analysis for models of flows in porous media.

Reporting line: This position reports to an academic within the School of Mathematical Sciences

Supervisory responsibilities: Not applicable

Financial delegation and/or budget responsibilities: Not applicable

Key result areas and responsibility

The occupant will contribute to the research by performing a range of research related tasks which may include any of the following:

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 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. Some funds are available to support domestic and international research-related travel
3. Limited administrative functions primarily connected with the area of research of the academic

4. A minimal amount of teaching will be required, not more than one half of one unit per year
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 students

Key selection criteria

Education/Qualifications

1. A PhD or equivalent degree in mathematics or a closely related discipline, from a recognised university (candidates who expect to submit their thesis within the first half of 2017 will be considered, but must describe in some detail the current state of their thesis)

Knowledge and Skills

2. Ability to solve problems by using innovation and the exercise of high level diagnostic skills within areas of functional responsibility or professional expertise
3. Excellent written communication and verbal communication skills with proven ability to effectively analyse information and produce clear, succinct reports and documents requiring interaction with others
4. Basic knowledge in both of, and expertise in at least one of: Numerical analysis of PDEs of elliptic or parabolic type, and Programming skills (e.g. FORTRAN, C or C++; MATLAB is acceptable if the applicant is willing to learn other languages for the project); and/or theoretical analysis of PDEs of elliptic or parabolic type.
5. Proven ability to perform research
6. Planning and organisational skills, with the ability to prioritise multiple tasks and set and meet deadlines

Other job-related information

- Overtime and out of hours work (including evenings, weekends and public holidays) may be required
- Travel (e.g. to other campuses of the University) may be required
- There may be peak periods of work during which the taking of leave may be restricted

Legal compliance

Ensure you are aware of and adhere to legislation and University policy relevant to the duties undertaken, including: Equal Employment Opportunity, supporting equity and fairness; Occupational Health and Safety, supporting a safe workplace; Conflict of Interest (including Conflict of Interest in Research); Paid Outside Work; Privacy; Research Conduct; and Staff/Student Relationships.