

POSITION DESCRIPTION

Australian Mathematical Sciences Institute
Faculty of Science

Choose Maths Gender Researcher, Australian Mathematical Sciences Institute (AMSI)

POSITION NO	0039007
CLASSIFICATION	Level B
SALARY	\$92,654 - \$110,022 p.a.
SUPERANNUATION	Employer contribution of 17%
EMPLOYMENT TYPE	<p>Full-time (Fixed-term) position available until 31 December 2019</p> <p>Fixed term contract type: Externally Funded</p> <p>Applications for part-time or other flexible working arrangements will be welcomed and will be fully considered subject to meeting the inherent requirements of the position.</p>
OTHER BENEFITS	http://about.unimelb.edu.au/careers/working/benefits
CURRENT OCCUPANT	New
HOW TO APPLY	<p>Online applications are preferred. Go to http://about.unimelb.edu.au/careers, under 'Job Search and Job Alerts', select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.</p>
CONTACT FOR ENQUIRIES ONLY	<p>Inge Koch Tel +61 3 8344 9859 Email inge@amsi.org.au</p> <p><i>Please do not send your application to this contact</i></p>

For information about working for the University of Melbourne, visit our websites:

about.unimelb.edu.au/careers
joining.unimelb.edu.au

Position Summary

AMSI has secured funding for a large-scale outreach and awareness project, known as **Choose Maths**. The goal of **Choose Maths** is to build self-sustaining education communities where girls and young women share equally in the rewarding careers and rich life experiences that mathematics offers. The program will be founded in a strong evidence base and will have direct and specific influence within a defined number of schools as well as a broader scope across the wider community through public awareness raising activities.

We are seeking a Research Fellow to manage a research agenda which will inform AMSI programs and policies with respect to gender in mathematics. The role requires the ability to undertake research based on the education outcomes in the project.

The Research Fellow will work under the direction of the AMSI Executive Director, Choose Maths.

1. Selection Criteria

1.1 ESSENTIAL

- ▶ A degree or postgraduate qualification in mathematics or statistics, mathematics education and/or gender research in a numerate or cognitive discipline
- ▶ A PhD in mathematics or statistics, mathematics education or gender research in a numerate or cognitive field
- ▶ A strong research track record in a relevant field as evidenced by research publications in high quality journals
- ▶ Demonstrated research experience in a complex team or organisation
- ▶ Excellent interpersonal and communication skills, the ability to interact with stakeholders at all levels and demonstrated capacity to communicate scientific research in written and oral form
- ▶ Demonstrated ability to work both independently and as part of a team in a professional and collegial manner and to build rapport with all levels of staff
- ▶ Developed organisational skills, ability to prioritise tasks, manage time effectively and to exercise appropriate judgement when required
- ▶ A high level of self-motivation and initiative, an ability to provide creative solutions to problems and an ability to be flexible in responding to changing work priorities

1.2 DESIRABLE

- ▶ Proven analytical and strategic skills
- ▶ Track record in gender-related research in mathematics or mathematics education
- ▶ Demonstrated ability to organise seminars and workshops

2. *Special Requirements*

- ▶ Interstate travel will be required

3. *Key Responsibilities*

3.1 RESEARCH

- ▶ Engage in research and research related activities as listed below under the direction of and in collaboration with the AMSI Executive Director, Choose Maths
- ▶ Undertake original work in gender research and the teaching and learning of mathematics, particularly relevant to the Choose Maths program
- ▶ Manage the gender-focussed research profile of Choose Maths, plan and oversee the data collection, analysis and reporting
- ▶ Employ a variety of methods of data acquisition and data analysis including analyses of international research, literature reviews, use of web analytics and social media data
- ▶ Contribute to the production of research papers for publication in high-impact international peer-reviewed journals and present research findings at conferences
- ▶ Manage the production of the annual AMSI Gender Report which examines the issues underlying engagement of young women and girls in mathematics and STEM fields
- ▶ Assist in the co-supervision and training of postgraduate or research higher degree students as opportunities arise
- ▶ Organise seminars and workshops in gender research in mathematics education: internally for the Choose Maths team, and externally for the teaching and research community

3.2 ENGAGEMENT

- ▶ Consult with relevant expert groups and individuals in the design and conduct of the research program
- ▶ In conjunction with the Choose Maths team, engage with stakeholder groups in the dissemination of the research outcomes

3.3 PROFESSIONAL PRACTICE

- ▶ Maintain membership of relevant learned societies
- ▶ Have responsibility for complying with the research ethics standards of the University of Melbourne

3.4 OTHER

- ▶ As required by the AMSI Executive Director, Choose Maths, participate in administrative and other responsibilities required to support AMSI activities
- ▶ Engage in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise
- ▶ Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 5

4. *Other Information*

4.1 AUSTRALIAN MATHEMATICAL SCIENCES INSTITUTE (AMSI)

www.amsi.org.au

The Australian Mathematical Sciences Institute (AMSI) is located at the University of Melbourne and is a departmental unit in the Faculty of Science. It is situated at Building 161 on the university's main campus in Parkville.

AMSI was established in November 2002 with initial funding of \$1M from the Victorian Government's Science, Technology and Innovation Infrastructure grants program and matching funds from a member consortium of Australian universities and other mathematical organisations.

AMSI's mission is the radical improvement of mathematical sciences capacity and capability in the Australian community.

The major supporting institutions are La Trobe University, Monash University, Queensland University of Technology, RMIT University, The Australian National University, The University of Melbourne, The University of New South Wales, The University of Queensland, The University of Sydney, The University of Adelaide, The University of Newcastle and The University of Western Australia. Other members include CSIRO, the Reserve Bank of Australia, Mathematics Education Research Group of Australia, The Australian Mathematics Trust, the Bureau of Meteorology, the Australian Bureau of Statistics and the Defence Sciences Technology Group.

Since its inception AMSI has developed as a nationally and internationally recognised centre for the mathematical sciences with achievements ranging across:

- Representation of its members and the wider mathematical community in communicating the strengths, importance and vital benefits of mathematics and statistics to journalists, university administrators, politicians, public servants and industrialists;
- Significant participation in and support of high-level submissions to governments;
- Successful organisation of wide-ranging industry-linked activities;
- Enhancement of the national level of competency in school mathematics through provision of well researched, well written mathematics textbooks and teacher resource materials, teacher professional development and electronic teaching aids;
- On-going provision of activities at higher education level including postgraduate and specialist courses and workshops.

4.2 FACULTY OF SCIENCE

<http://www.science.unimelb.edu.au>

Science at the University of Melbourne is the most highly ranked Faculty of Science in Australia.* Science is defined by its research excellence in the physical and life sciences and is at the forefront of research addressing major societal issues from climate change to disease. Our discoveries help build an understanding of the world around us.

We have over 150 years of experience in pioneering scientific thinking and analysis, leading to outstanding teaching and learning and offer a curriculum based on highly relevant research, which empowers our STEM students and graduates to understand and address complexities that impact real world issues and the challenges of tomorrow.

We aspire to engage the broader community with the impact that Science has on our everyday lives. Through the strength of our internships and research project offerings, our students are provided opportunities to engage with industry partners to solve real-world issues.

The Faculty of Science has over 40,000 alumni and is one of the largest faculties in the University comprising seven schools: BioSciences, Chemistry, Earth Sciences, Ecosystem and Forest Sciences, Geography, Mathematics and Statistics, and Physics.

The Faculty is custodian of the Bio21 Molecular Science and Biotechnology Institute, Office for Environmental Programs and home to numerous Centres.

Science manages more than \$280 million of income per annum, with a staff base in the order of 220 professional staff, and more than 540 academic staff.

We offer a range of undergraduate, honours, graduate and research degrees; enrolling over 7,500 undergraduate and graduate students. The Faculty of Science is the custodial Faculty for the BSc (Bachelor of Science) with enrolments of approximately 6,200 students.

The Faculty of Science is a leader in research, contributing approximately \$50 million in HERDC income per annum. The Faculty of Science is highly research focused, performing strongly in the ARC competitive grants schemes, often out-performing the national average. The Faculty of Science is currently growing its competitiveness and standing in the NHMRC space.

The Faculty of Science provides community services and industry partnerships based on a solid foundation of research in the pure and applied sciences. The Faculty has an endowment of approximately \$50 million. The annual income from the endowment supports more than 120 prizes, scholarships and research awards.

* Figures from the latest available data for 2015, including published international rankings data.

4.3 THE UNIVERSITY OF MELBOURNE

The University of Melbourne is a leading international university with a tradition of excellence in teaching and research. With outstanding performance in international rankings, Melbourne is at the forefront of higher education in the Asia-Pacific region and the world. The University of Melbourne is consistently ranked among the world's top universities. Further information about our reputation and global ranking is available at <http://futurestudents.unimelb.edu.au/explore/why-choose-melbourne/reputation-rankings>.

Established in 1853, shortly after the founding of Melbourne, the University is located just a few minutes from the centre of this global city. The main Parkville campus is recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide range of knowledge-based industries.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded. Further information about working at The University of Melbourne is available at <http://about.unimelb.edu.au/careers>.

4.4 GROWING ESTEEM, THE MELBOURNE CURRICULUM AND RESEARCH AT MELBOURNE: ENSURING EXCELLENCE AND IMPACT TO 2025

- ▶ Growing Esteem describes Melbourne's strategy to achieve its aspiration to be a public-spirited and internationally-engaged institution, highly regarded for making distinctive contributions to society in research and research training, learning and teaching, and engagement. <http://about.unimelb.edu.au/strategy-and-leadership>
- ▶ The University is at the forefront of Australia's changing higher education system and offers a distinctive model of education known collectively as the Melbourne Curriculum. The new educational model, designed for an outstanding experience for all students, is based on six broad undergraduate programs followed by a graduate professional degree, research higher degree or entry directly into employment. The emphasis on academic breadth as well as disciplinary depth in the new degrees ensures that graduates will have the capacity to succeed in a world where knowledge boundaries are shifting and reforming to create new frontiers and challenges. In moving to the new model, the University is also aligning itself with the best of emerging European and Asian practice and well-established North American traditions.
- ▶ The University's global aspirations seek to make significant contributions to major social, economic and environmental challenges. Accordingly, the University's research strategy *Research at Melbourne: Ensuring Excellence and Impact to 2025* aspires to a significant advancement in the excellence and impact of its research outputs. <http://research.unimelb.edu.au/index.html#home>

The strategy recognises that as a public-spirited, research-intensive institution of the future, the University must strive to make a tangible impact in Australia and the world, working across disciplinary and sectoral boundaries and building deeper and more substantive engagement with industry, collaborators and partners. While cultivating the fundamental enabling disciplines through investigator-driven research, the University has adopted three grand challenges aspiring to solve some of the most difficult problems facing our world in the next century. These Grand Challenges include:

Understanding our place and purpose – The place and purpose grand challenge centres on understanding all aspects of our national identity, with a focus on Australia's 'place' in the Asia-Pacific region and the world, and on our 'purpose' or mission to improve all dimensions of the human condition through our research.

Fostering health and wellbeing – The health and wellbeing grand challenge focuses on building the scale and breadth of our capabilities in population and global health; on harnessing our contribution to the 'convergence revolution' of biomedical and health research, bringing together the life sciences, engineering and the physical sciences; and on addressing the physical, mental and social aspects of wellbeing by looking beyond the traditional boundaries of biomedicine.

Supporting sustainability and resilience – The sustainability and resilience grand challenge addresses the critical issues of climate change, water and food security, sustainable energy and designing resilient cities and regions. In addition to the technical aspects, this grand challenge considers the physical and social functioning of cities, connecting physical phenomena with lessons from our past, and the implications of the technical solutions for economies, living patterns and behaviours.

Essential to tackling these challenges, an outstanding faculty, high performing students, wide collaboration including internationally and deep partnerships with external parties form central components of Research at Melbourne: Ensuring Excellence and Impact to 2025.

4.5 EQUITY AND DIVERSITY

Another key priority for the University is access and equity. The University of Melbourne is strongly committed to an admissions policy that takes the best students, regardless of financial and other disadvantage. An Access, Equity and Diversity Policy Statement, included in the University Plan, reflects this priority.

The University is committed to equal opportunity in education, employment and welfare for staff and students. Students are selected on merit and staff are selected and promoted on merit.

4.6 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at <http://www.unimelb.edu.au/unisec/governance.html>.

5. *Occupational Health and Safety (OHS)*

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

<http://safety.unimelb.edu.au/topics/responsibilities/>

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.