POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow
Organisation Unit: School of Mathematics and Physics
Position Number: NEW
Type of Employment: Fulltime. Fixed-term for 2 years.
Classification: Research Academic Level A

THE UNIVERSITY OF QUEENSLAND

The University of Queensland (UQ) contributes positively to society by engaging in the creation, preservation, transfer and application of knowledge. UQ helps shape the future by bringing together and developing leaders in their fields to inspire the next generation and to advance ideas that benefit the world. UQ strives for the personal and professional success of its students, staff and alumni. For more than a century, we have educated and worked with outstanding people to deliver knowledge leadership for a better world.

UQ ranks in the world’s top universities, as measured by several key independent ranking, including the CWTS Leiden Ranking (32), the Performance Ranking of Scientific Papers for World Universities (40), the US News Best Global Universities Rankings (42), QS World University Rankings (47), Academic Ranking of World Universities (54), and the Times Higher Education World University Rankings (66). Excluding the award component, UQ is now ranked 45th in the world in the ARWU, and is one of the only two Australian universities to be included in the global top 50.

UQ has an outstanding reputation for the quality of its teachers, its educational programs and employment outcomes for its students. Our students remain at the heart of what we do. The UQ experience – the UQ Advantage – is distinguished by a research enriched curriculum, international collaborations, industry engagement and opportunities that nurture and develop future leaders. UQ has a strong focus on teaching excellence, winning more national teaching excellence awards than any other in the country and attracting the majority of Queensland’s highest academic achievers, as well as top interstate and overseas students.

UQ is one of Australia’s Group of Eight, a charter member of edX and a founding member of Universitas 21, an international consortium of leading research-intensive universities.

Our 53,000-plus strong student community includes more than 16,400 postgraduate scholars and more than 17,000 international students from 135 countries, adding to its proud 260,000-plus alumni. The University has more than 6,600 academic and professional staff (full-time equivalent) and a $2.15 billion annual operating budget. Its major campuses are at St Lucia, Gatton and Herston, in addition to teaching and research sites around Queensland and Brisbane city. The University has six Faculties and four University-level Institutes. The
Institutes, funded by government and industry grants, philanthropy and commercialisation activities, have built scale and focus in research areas in neuroscience, biomolecular and biomedical sciences, sustainable minerals, bioengineering and nanotechnology, as well as social science research.

UQ has an outstanding track-record in commercialisation of our innovation with major technologies employed across the globe and integral to gross product sales of $11billion+.

UQ has a rapidly growing record of attracting philanthropic support for its activities and this will be a strategic focus going forward.

Organisational environment

UQ Mathematics is part of the School of Mathematics and Physics within the UQ Faculty of Science. The School is the leading provider of tertiary mathematics and statistics research and teaching in Queensland, with expertise in pure and applied mathematics, statistics and probability, and mathematical physics. It teaches into a range of undergraduate, postgraduate coursework and higher degree by research programs, including specialist programs in financial mathematics, data science and quantum technology.

The School hosts several world-class research centres, including nodes of four Australian Research Council Centres of Excellence, and experts collaborate with institutions and individuals nationally and internationally, both in industry and academia, to positively impact on many aspects of modern life.

For more information, visit the School of Mathematics and Physics’ website: smp.uq.edu.au.

Diversity and Inclusion

The School recognizes and values equity and diversity, and encourages applications from any individual who meets the requirements of this position irrespective of gender, sexuality, race, ethnicity, religion, disability, age or other protected attributes. The School strives to provide an inclusive working environment, and along with the University is committed to supporting staff with family and caring responsibilities by providing policies, programs and initiatives to help balance work and family responsibilities.

Information for Prospective Staff

Information about life at UQ including staff benefits, relocation and UQ campuses is available at - http://www.uq.edu.au/current-staff/working-at-uq

The University of Queensland Enterprise Agreement outlines the position classification standards for Levels A to E.
DUTY STATEMENT

Primary Purpose of Position

The primary role of this position is to undertake research under the Australian Research Council funded project “Quantum control designed from broken integrability”. This is an international collaboration led by Assoc. Prof. Jon Links and Dr. Phillip Isaac from The University of Queensland, and Partner Investigator Prof. Angela Foerster from Brazil. The project aims to use well-developed techniques from the field of quantum integrability to design mathematical models of systems of ultracold atoms. The project will investigate control of the behaviour of these systems by breaking the integrability. It is anticipated that such models may find applications in the field of atomtronics.

Duties

Duties and responsibilities include, but are not limited to:

Research
- Conduct research in the field of integrable quantum systems as proposed in the ARC funded project.
- Work with colleagues and postgraduates in the development of joint research projects.
- Participate in applications for external research funding, as appropriate.
- Prepare research publications and progress reports, and participate in regular meetings to discuss project objectives, methodology and outcomes.

Teaching and Learning
- Contribute to supervision of Honour students and Higher Degree by Research students (as appropriate).

Service and Engagement
- Begin to develop external relationships with professional bodies and the wider community.
- Perform a range of administrative functions.
- Contribute to activities that benefit the organisational unit, including participation in decision-making and serving on internal committees.
- Any other duties as reasonably directed by your supervisor.

Other

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including but not exclusive to:
- the University's Code of Conduct
- requirements of the Queensland occupational health and safety (OH&S) legislation and related OH&S responsibilities and procedures developed by the University or Institute/School
- the adoption of sustainable practices in all work activities and compliance with associated legislation and related University sustainability responsibilities and procedures
- requirements of the Education Services for Overseas Students Act 2000, the National Code 2007 and associated legislation, and related responsibilities and procedures developed by the University
Organisational Relationships

The position reports to Associate Professor Jon Links, School of Mathematics and Physics.

SELECTION CRITERIA

- PhD (or progress towards PhD) in the area of Mathematical Physics, or other relevant discipline.
- Demonstrated ability to conduct research in the discipline area.
- Record of accomplishment in publication of research findings in high quality, peer reviewed journals.
- Demonstrated experience in presenting research results at conferences.
- Ability to work collaboratively with colleagues.
- Commitment to upholding the University’s values, and with the outstanding personal qualities of openness, respectfulness and integrity.

Qualification Verification

An appointment to this position is subject to the verification of the highest academic qualification from the conferring institution.

The University of Queensland values diversity and inclusion and actively encourages applications from those who bring diversity to the University. Please refer to the University’s Diversity and Inclusion webpage for further information and points of contact if you require additional support.

This role is a full-time position; however flexible working arrangements may be negotiated.

Accessibility requirements and/or adjustments can be directed to recruitment@uq.edu.au.