Appointment of
Lecturer / Senior Lecturer – Astrophysics
SCHOOL OF MATHEMATICS AND PHYSICS
School of Mathematics and Physics

The School of Mathematics and Physics (SMP) sits within the Faculty of Science. It is one of the largest Schools at The University of Queensland (UQ). Its strengths lie in delivering high-quality teaching, conducting research that is recognised at national and international levels, and contributing to society through its engagement with industry, government and the broader community. It is a multidisciplinary School that pursues excellence across all of its academic endeavours.

SMP provides a family-friendly workplace and offers a number of flexible work options to help staff balance their responsibilities at work and at home. It holds the Silver Pleiades Award of the Astronomical Society of Australia demonstrating a sustained record of monitoring and improving the working environment. It is the sole Australian organisation participating in the American Physical Society’s Inclusion, Diversity, and Equity Alliance (APS-IDEA) Network. Further information can be found here.

SMP has sustained success in attracting research funding, particularly in Australian Research Council funding, annually winning significant numbers of Discovery Projects and a range of fellowships. In addition, the School has had considerable Centre of Excellence (CoEs) success, hosting the lead node for two CoEs in the period 2013–2022 and with staff being chief investigators in a further seven CoEs in that period. The School’s research excellence is also evidenced by its performance in the most recent (2018) Excellence in Research for Australia (ERA) assessments, achieving ratings of 5 in both 2-digit fields of research (FoR), Mathematical Sciences and Physical Sciences, as well as in the 4-digit FoRs Pure Mathematics, Applied Mathematics, Statistics, Astronomical and Space Sciences, Condensed Matter Physics, Quantum Physics and Optical Physics, and also received a rating of 4 (above world standard) in Mathematical Physics, no rating of 5 (well above world standard) being awarded for any Australian institution in this FoR.

Research in astrophysics at UQ includes: cosmology, galaxy evolution, stellar systems, extra-solar planets, gravitational waves, and fundamental physics, with strengths in computational, data-intensive, and large-survey science. Applicants in any area of astrophysics with synergies with these or other research programs within the University are encouraged to apply. The successful appointee will expand the research profile of the School in new and exciting directions, while forming synergistic collaborations with one or more of the existing research strengths in UQ astrophysics. They will have the opportunity to capitalise on Australia’s membership in the European Southern Observatory (ESO), the Square Kilometre Array (SKA) and its pathfinders, and/or the Rubin Observatory’s Legacy Survey of Space and Time (LSST). They can work with local members of the Dark Energy Survey (DES), Dark Energy Spectroscopic Instrument (DESI), and 4-metre Multi-Object Spectroscopic Telescope (4MOST); and will have access to the UQ and national astronomy supercomputing facilities.

SMP is the leading provider of tertiary mathematics and physics education in Queensland. The School teaches a comprehensive undergraduate program in science, mathematics, statistics, and physics, as well as performing service teaching for students of engineering and the life sciences. There is also an extensive postgraduate research program, which has more than 100 Research Higher Degree students currently enrolled in the School.
Undergraduate programs offered include BSc, BMath, BA (each with an Honours year) and BAdvSci. Coursework postgraduate degrees (MSc, MFinMath, MDataSc, MQTech, MCyberSec, MBusAn) and research degrees (MPhil and PhD) are offered at postgraduate level. Staff in the School are highly recognised for their excellence in teaching and learning and have received a range of university and national teaching awards and citations, Higher Education Academy United Kingdom Fellowships, and significant Office of Learning and Teaching grants.

Engagement with national discipline-related bodies, societies, and institutes is also important to SMP, and the School maintains ongoing collaboration with the Australian Institute of Physics (AIP), the Australian Mathematical Society (AustMS), the Statistical Society of Australia (SSA), the Australian Mathematical Sciences Institute (AMSI) and the Mathematical Research Institute, MATRIX.

There are a total of 134 full-time academic staff members in the School, and 18 professional School staff who provide professional, technical and administrative support.

Further details of the School’s achievement and the teaching and research interests of academic staff may be accessed on the School’s website at smp.uq.edu.au.
Role of the Lecturer / Senior Lecturer – Astrophysics

About this opportunity
The School of Mathematics and Physics seeks to recruit a total of four women (two in mathematics and two in physics) to continuing teaching and research positions at Academic Level B/C. The positions are open to women and those who identify as women. This recruitment strategy is aimed at continuing to improve the diversity of the School’s academic staff, and to demonstrate its commitment to gender equity. The appointee to this position will have a developed research program in an area of astrophysics that complements or supplements the School’s research strengths. The appointees will engage in undergraduate and postgraduate teaching and curriculum development in physics, including service courses. The appointees will also supervise Higher Degree by Research, postgraduate coursework and Honours students, conduct high-quality research, and perform administrative, outreach and other engagement activities associated with the School.

Duties

Teaching
Level B (Lecturer) key responsibilities will include:
• Teach across different settings and actively contribute towards educational practice and innovative curriculum design including online learning and alternative teaching methods.
• Coordinate courses, prepare and deliver lectures and tutorials, and undertake assessment and marking for undergraduate and postgraduate courses.
• Contribute to the development of new programs and course material as needed, by consulting with program advisors and stakeholders, ensuring courses are engaging, relevant and contemporary.
• Maintain and improve the quality of courses as measured through evaluation instruments to meet industry and educational standards.
• Provide high quality service to students, including academic counselling and advice.
• Understand and apply University Rules relevant to teaching and learning practice.

Level C (Senior Lecturer) will also include:
• Support the ongoing improvement of programs via successful coordination of a significant aspect of a program (e.g., a major, a clinical teaching unit or a field of study) or a significant contribution to the development or coordination of teaching to ensure courses are engaging, relevant and contemporary.

Research
Level B (Lecturer) key responsibilities will include:
• Develop an independent and/or team research program to achieve recognition and impact in the research area.
• Work with colleagues and postgraduates in the development and conduct of joint research projects and applications for external research funding support as a chief investigator.
• Maintain an active and effective record of publishing in high quality national research journals, other appropriate refereed publications and conference publications.

Level C (Senior Lecturer) will also include:
• Encourage, initiate and coordinate strategic collaborative research projects in related area of expertise across University, national and international levels.

**Supervision and researcher development**

Level B (Lecturer) key responsibilities will include:
• Supervising Honours and Higher Degree by Research students.
• Working to promptly resolve conflict and grievances when they arise in accordance with University policy and procedures.

Level C (Senior Lecturer) will also include:
• Leading others in the responsible conduct of research.
• Effective supervision, management and development of researcher capability and skill, including facilitating engagement opportunities.
• Manage staff effectively throughout the employee lifecycle in accordance with University policy and procedures.

**Citizenship and service**

Level B (Lecturer) key responsibilities will include:
• Actively develop partnerships by fostering relationships with colleagues, industry, government departments, professional bodies and the wider community.
• Shows leadership of self and others through mentoring and collaboration.
• Efficiently manage allocated internal service roles and processes, including participation in decision-making and service on relevant committees.
• Effectively perform a range of administrative functions as required.
• Provide support to other academic positions as needed and during absences.
• Consistently demonstrate behaviours that align to the UQ values.

Level C (Senior Lecturer) will also include:
• Establish a track record of collaboration in relation to external service activities.
• Advance external links and partnerships by collaborating on external activities and sustain relationships with industry, government departments, professional bodies and the wider community.
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, Faculty, Institute or 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.
**About you**

**Essential**

The filling of this position is intended to constitute an equal opportunity measure under Section 105 of the Anti-Discrimination Act 1991 (Qld). The position is therefore only open to women, and those who identify as women.

UQ is committed to a fair, equitable and inclusive selection process, which recognises that some applicants may face additional barriers and challenges which have impacted and/or continue to impact their career trajectory. Candidates who may not meet all of the selection criteria are strongly encouraged to apply for and demonstrate their potential in the role, even if certain selection criteria can’t be met. Candidates may also wish to proactively outline any barriers or challenges which have impacted their career. The selection panel will consider both your potential and any performance relative to opportunity when assessing your suitability for this role.

Applicants should possess a PhD or equivalent in a relevant field related to astrophysics. Additionally, you will demonstrate:

**Level B (Lecturer)**

- A growing profile of contributions towards a range of teaching responsibilities, including designing effective learning materials and assessment tasks, using effective teaching and learning approaches, coordinating courses and participating in a range of student experiences.
- Evidence of participation in education collaborations and professional learning in teaching.
- A developing national profile in research in the discipline area, evidence for which can include: a track record of publications in reputed refereed journals and conference presentations; a contribution to the transfer of knowledge, technology and practices to research end users; and the development of partnerships with research end users or external collaborators.
- Evidence of contributing to and sometimes leading applications for external research funding.
- A growing record of effective supervision of Honours and Higher Degree by Research students, evidence for which can include: supervisory role contributing to successful completion of Honours or RHD students; development of supervisee capabilities and skills; demonstrating the responsible conduct of research; and facilitating engagement opportunities for supervisees.
- Evidence of effective performance in internal service roles in conjunction with active contributions to external activities.
Level C (Senior Lecturer)

• An established profile of effective contributions towards a range of teaching responsibilities, including improving curriculum design and assessment practices, modifying teaching and learning approaches to achieve enhanced learning outcomes, and leading courses, discipline plans or programs.

• Evidence of building and maintaining education collaborations and undertaking professional learning in teaching.

• National recognition, with a developing international profile, in research in the discipline area, evidence for which can include: an established record of publications in reputed refereed journal and conference presentations; a contribution to the transfer of knowledge, technology and practices to research end users, and the development of partnerships with research end users or external collaborators.

• Evidence of contributing to and often leading successful applications for external research funding.

• An established record of effective supervision of Honours and Higher Degree by Research students to successful completion, evidence for which can include: supervisory role contributing to successful completion of Honours or RHD students; developing supervisee capabilities and skills, leading others in the responsible conduct of research, and facilitating engagement opportunities for supervisees.

• Demonstrated achievement and initiative in internal service roles in conjunction with an established record in external activities.
Conditions of employment

Employment type
This is a full-time (100% FTE) continuing position at an Academic Level B or Level C, commensurate with relevant skills and qualifications.

Salary and benefits
Academic Level B full-time equivalent base salary will be in the range of $101,533 – $120,570 plus super of up to 17%. The total FTE package will be in the range $118,794 – $141,067 p.a.
Academic Level C full-time equivalent base salary will be in the range $124,378 – $143,415 plus super of up to 17%. The total FTE package will be in the range $145,523 – $167,796 p.a.
The following flexible employment options may be available for this role:

- Part time
- Some working from home
- Variable start or finish times depending on teaching timetable
- Compressed hours.

For further information about UQ’s benefits, please visit Why Work at UQ and review The University of Queensland’s Enterprise Bargaining Agreement 2018–2021.

Sponsorship
Visa sponsorship may be available for this appointment.

How to apply
All applicants must upload the following documents in order for your application to be considered:

- An outline of their research program.
- Resume.
- Cover letter addressing:
  1) the selection criteria, and
  2) identifying how their research complements and supplements the research of staff in the School and/or the broader university, including details of possible collaborations.
- The contact details of at least two (2) referees who will be able to write recommendation letters. You will be notified before references are conducted.

Please note that you will be asked to add all documents into the one upload box labelled ‘resume’, which is step one of the application form.
Our commitment to workplace diversity and inclusion

Strategies, plans and governance

UQ values equity, diversity, and inclusion, and seeks to reflect the broader community by attracting and retaining high-quality staff from a range of backgrounds.

We are committed to identify and address areas of under-representation among staff and aim to provide a respectful and healthy work environment for staff from all backgrounds, focusing on six key areas:

- Aboriginal and Torres Strait Islander employment
- gender
- sexuality, gender, and sex
- cultural and linguistic diversity
- disability
- work and caring responsibilities

Improving gender equity

UQ is proud to be a Bronze Institutional Award level recipient in the from SAGE Athena Swan Program and a Silver Award for the AWEI. We remain committed to improving gender equity in the workplace, demonstrated by:

- Workplace Gender Equality Agency (WGEA)
- SAGE Pilot of Athena SWAN
- The University of Queensland Strategic Plan
- UQ's diversity and inclusion policies and procedures
- UQ Ally Network

Our initiatives include:

- increasing the proportion of women in senior positions.
- increasing support of career progression of women in research.
- providing equal remuneration for women and men for work of equal or comparable value.
- removing barriers that prevent women from participating equally in the workplace.
- providing more access to resources for women to achieve leadership roles.
- eliminating assumptions of caring responsibilities of men and women.
- changing workplace culture to embrace gender equality as a normative practice.
- assisting in making transition from parental leave to return to work as smooth as possible.

Listen to inspiring interviews from women who have found success in academic and professional roles at UQ featured in our Women Finding Success Podcast.
For more than a century, The University of Queensland (UQ) has created positive change for society by delivering knowledge leadership for a better world.

UQ ranks among the world’s top universities, as measured by several key independent rankings, including the CWTS Leiden Ranking (32), U.S. News Best Global Universities Rankings (36), the Performance Ranking of Scientific Papers for World Universities (38), QS World University Rankings (50), Academic Ranking of World Universities (47), and Times Higher Education World University Rankings (53).

At UQ, we’re changing the way higher education is imagined and experienced. Our students enjoy innovative and flexible learning options, diverse and dynamic partnership opportunities, and an integrated digital and campus learning environment.

More than 56,000 students – including the majority of Queensland’s highest academic achievers as well as top interstate and overseas students – study across UQ’s 3 beautiful campuses in South East Queensland at St Lucia, Herston and Gatton. They include around 20,000 postgraduate and approximately 21,000 international students who contribute to a diverse, supportive and inclusive campus community.

With a strong focus on teaching excellence, having won more national teaching awards than any other Australian university, UQ is committed to providing students with the best opportunities and practical experiences during their time with us, empowering them with transferable knowledge and skills that will prepare them to exceed expectations throughout their careers.

UQ’s 304,000 graduates are an engaged network of global alumni spanning more than 170 countries, and include more than 16,700 PhDs.

UQ’s 6 faculties, 8 globally recognised research institutes and more than 100 research centres attract an interdisciplinary community of 1,500 scientists, social scientists and engineers, who champion research excellence and continue UQ’s tradition of research leadership. This is reflected in UQ being the number one recipient of Australian Research Council Fellowships and Awards nationally across all scheme years (452 awards worth $339 million).

UQ has an outstanding track record in commercialising innovation, with major technologies employed across the globe and gross product sales of more than US$44 billion.

UQ is one of only 3 Australian members of the global Universitas 21; a founding member of the Group of Eight (Go8) universities; a member of Universities Australia; a member of the Association of Pacific Rim Universities (APRU); and one of only 3 Australian charter members of the prestigious edX consortium, the world’s leading not-for-profit consortium of massive open online courses (MOOCs).

UQ employs more than 6,900 academic and professional staff (full-time equivalent) and has a $2.385 billion annual operating budget.
Governance

The University of Queensland is governed by a 22-member Senate representing University and community interests. Senate is led by the Chancellor, elected by the Senate. The University of Queensland Act 1998 grants Senate wide powers to appoint staff, manage and control University affairs and property, and manage and control finances to promote the University’s interests.

uq.edu.au/about/governance

Strategic direction

By 2032, UQ will be known as a university that:

- Delivers highly sought-after graduates, who are prepared for future success through rich and broad educational experiences
- Leads as a premier provider of high-quality postgraduate and lifelong learning opportunities
- Leverages the breadth and depth of its research capabilities and vibrant precincts to address the world’s most pressing challenges
- Is a trusted and agile partner widely regarded as a leader in entrepreneurship, knowledge exchange and commercialisation
- Has an extensive global reach in education and research with a strong commitment to capacity building in the Indo-Pacific
- Breaks down barriers to education through the targeted and effective Queensland Commitment
- Is values-led, deeply committed to delivering for the public good and supporting our people, leading reconciliation, and embracing different life experiences and perspectives
Strategic plan 2022–2025

Our vision
Knowledge leadership for a better world.

Our mission
Our core purpose is to deliver for the public good through excellence in education, research and engagement with our communities and partners: local, national and global.

Our values

What we strive for

Creativity
We apply our creativity as a way of seeking progress. We value new ideas, seek fresh perspectives and pursue game-changing innovations and opportunities.

Excellence
We strive for excellence in everything we do. We apply the highest standards to our work to achieve the greatest impact for the benefit of communities everywhere.

Central to what we do

Truth
Truth is central to all that we do as a university. We seek truth through our focus on the advancement and dissemination of knowledge, and our deep commitment to academic freedom and freedom of expression.

How we work together

Integrity
We always act with integrity. As stewards of the University’s resources and reputation, we are honest, ethical and principled.

Courage
We are courageous in our decision-making. We are ambitious, bold and agile. We demonstrate moral courage, so that we are always guided by a sense of what is right.

Respect and inclusivity
We provide a caring, inclusive and empowering environment for all. We engage respectfully with one another and promote the value that our diversity brings to our whole community.

about.uq.edu.au/strategic-plan
The UQ Leadership Framework identifies seven key capabilities that define leadership in the UQ context. The framework aligns with UQ’s strategic direction, and mission, vision and values.

**Achieves results and drives accountability**
Leaders ensure engagement and performance, and motivate and empower others to achieve results.

**Communicates and collaborates with influence**
Leaders engage others in open and honest dialogue about important issues and actively seek common interests and goals.

**Exemplifies personal credibility and integrity**
Leaders strive for personal achievement and are visibly proactive and ethical in their dealings with others.

**Fosters learning, inquiry and innovation**
Leaders nurture an environment that allows for multiple perspectives, challenge assumptions, and model openness to new ideas.

**Purposefully leads change**
Leaders initiate and lead change and improvement agendas, modelling behaviour that embraces innovation and change.

**Thinks and works strategically**
Leaders create and communicate a clear direction for the future, aligned with UQ’s vision.

**Values people and builds culture**
Leaders create a positive, constructive workplace where people feel connected and valued.
Brisbane is the sunny, sophisticated capital city of Queensland and gateway to its many famous attractions. Australia’s third largest city and fastest-growing capital with a population of more than 2.2 million, it offers a safe, friendly, multicultural environment. The inner city is characterised by the Brisbane River, parklands, convention facilities, museums, art galleries, a casino, malls, shopping districts and a host of cosmopolitan restaurants and cafes.

Brisbane offers a range of lifestyle benefits including climate, culture, family fun and sport. Residents and visitors can combine art and outdoor adventure in Brisbane, where South Bank’s cultural institutions and restaurants meet riverside gardens and a lagoon. Take a paddle steamer or ferry down the Brisbane River, abseil Kangaroo Point cliffs and bike ride through the City Botanic Gardens. Go for a day trip to Moreton Island, Noosa, the Sunshine Coast or the Gold Coast with just a short drive to each beautiful destination. National Parks, rainforests and attractions such as Australia Zoo, Dreamworld and other theme parks are also a short drive away.

The perfect place to raise a family, Brisbane is one of the safest cities in Australia and boasts a wide range of cultural attractions, numerous theatres, art galleries and a world-class museum; the city is dubbed a food and drink lover’s paradise. Brisbane is one of Australia’s most liveable and affordable capital cities. Brisbane enjoys a subtropical climate providing sunny days almost all year round, with enough rainfall to keep the city and suburbs cool and green.

Just an hour south of Brisbane’s CBD is the Gold Coast, where the high-rises are built around superb beaches like Surfers Paradise with lively nightlife, international theme parks and designer boutiques. A few hours drive north from Brisbane is the Great Barrier Reef, one of the ‘natural wonders of the world’. As the largest World Heritage Area, it stretches more than 2,000 kilometres alongside the coast, and is home to around 1,500 species of fish and 350 types of coral. Stradbroke, Moreton and Fraser Islands are also world-famous attractions that are close to Brisbane, and offer some of the largest sand dunes in the world.

A leader in education
Brisbane has a wide range of high-quality schools at primary and secondary level, religious or non-denominational, single-sex or co-educational, with many offering excellence programs or other specialty features such as the International Baccalaureate. Brisbane also offers some of the greatest learning institutes in Australia, with three major internationally recognised universities on offer. Each Brisbane university offers a high-quality learning environment with access to some of Australia’s finest institutions covering all areas of study from law and medicine through to business, marketing, tourism, IT and biotechnology. The University of Queensland (UQ) is one of Australia’s leading research and teaching institutes, ranking among the world’s top universities.

Lifestyle
In the heart of Brisbane city, Queen Street Mall is a vibrant shopping and lifestyle precinct and is Australia’s most popular pedestrian mall. Brisbane is also the home for many of Queensland and Australia’s major sporting events in rugby league, rugby union, AFL and cricket.

Brisbane residents have excellent access to healthcare in both public and private sectors, covering hospitals, general practitioners, dentists and other allied healthcare professionals. The numerous public and private hospitals include the Princess Alexandra Hospital, the Mater Hospital network, The Queensland Children’s Hospital and the Royal Brisbane and Women’s Hospital. Urgent and emergency medical care is readily available to everyone.
Further information

General information on the University is available through the University’s website: uq.edu.au

Other documents which you may wish to refer to include:

- Annual Report: about.uq.edu.au/organisation/policies-procedures-guidelines/annual-reports
- Governance: about.uq.edu.au/governance
- Research at UQ: research.uq.edu.au
- Strategic Plan 2022–2025: about.uq.edu.au/strategic-plan
- UQ Global Strategy: global-strategy.uq.edu.au
- UQ Reconciliation Action Plan: about.uq.edu.au/reconciliation/plan