



POSITION DESCRIPTION

School of Physics
Faculty of Science

ASTRO-3D Lecturer/Senior Lecturer Astrophysics

POSITION NO	0043379
CLASSIFICATION	Lecturer (Level B) or Senior Lecturer (Level C)
SALARY	\$98,775 - \$117,290 p.a. (Level B) or \$120,993 - \$139,510 p.a. (Level C) Level of appointment is subject to qualifications and experience
SUPERANNUATION	Employer contribution of 17%
WORKING HOURS	Full time
BASIS OF EMPLOYMENT	Continuing
OTHER BENEFITS	http://about.unimelb.edu.au/careers/working/benefits
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers , select the relevant option (‘Current Staff’ or ‘Prospective Staff’), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Professor Stuart Wyithe Tel +61 3 8344 5083 Email swyithe@unimelb.edu.au <i>Please do not send your application to this contact</i>

For information about working for the University of Melbourne, visit our website:
about.unimelb.edu.au/careers

Position Summary

The University plan seeks to increase the diversity of the workforce and the representation of women in areas where they have been traditionally under-represented. Consistent with this, the School of Physics is seeking to increase the representation of women in the academic workforce across physical science disciplines. Pursuant to a Special Measure under Section 12 (1) of the Equal Opportunity Act 2010 (Vic), the School will, therefore, **only consider applications from suitably qualified female candidates for this position.**

The School of Physics at the University of Melbourne is seeking the appointment of an outstanding female academic to a continuing position of Lecturer or Senior Lecturer in astrophysics. The successful applicant will also be awarded an ASTRO-3D Fellowship within the Australian Research Council (ARC) Centre of Excellence for All Sky Astrophysics in 3-Dimensions (ASTRO-3D), which will increase the ASTRO-3D Fellow's opportunities for research during the first six years of the appointment.

The position is open to female researchers in any aspect of ASTRO-3D science including optical, infrared and radio astronomy directed towards understanding the evolution of matter, the chemical elements, and ionizing radiation in the Universe from the Epoch of Reionization to the present day. The appointee is expected to attract postgraduate students, engage collaborative links within the School as well as externally, and secure competitive research funding in line with the strategic direction of the School. The Lecturer will supervise research students at undergraduate, MSc and MPhil/PhD levels. At the conclusion of their ASTRO-3D fellowship, the successful candidate will also have a core commitment to teaching within the School's undergraduate and MSc programs.

1. Key Responsibilities

For Minimum Standards for Academic Staff Level B and Level C view

<http://www.policy.unimelb.edu.au/schedules/MPF1157-ScheduleB.pdf>

1.1 RESEARCH

- ▶ Conduct research and contribute to knowledge through scholarship, refereed publication and presentation
- ▶ Actively seek external research grant income to support that research
- ▶ Active participation in research seminars and conferences
- ▶ Active supervision of undergraduate, MSc and MPhil/PhD levels

1.2 TEACHING

- ▶ Prepare and deliver lectures, tutorials, and practical classes at undergraduate and postgraduate level
- ▶ Being proactive in the development of subject materials and delivery, including the use of web resources as appropriate
- ▶ Supervise the study program of postgraduate students engaged in coursework

- ▶ Acting as Subject Coordinator
- ▶ Provide academic mentoring and assistance to students
- ▶ Perform marking and assessment duties

1.3 ENGAGEMENT

- ▶ Present research to the public to elevate public awareness of educational and scientific developments, and promote critical enquiry and public debate within the community
- ▶ Participation in outreach activities to ensure school students exposure to broader perspectives, values, and opportunities
- ▶ Exchange of knowledge between partners in a mutually beneficial way that expands the capacities of all concerned

1.4 SERVICES TO THE SCHOOL

- ▶ Contribute to a range of administrative functions, including those connected with teaching responsibilities and the conduct of the academic affairs of the School
- ▶ Participate in School and/or Faculty meetings and/or the committees that have responsibility for the academic affairs of the School
- ▶ Involvement in professional activity in the discipline
- ▶ Actively contribute to School activities such as Open day to promote student engagement
- ▶ Actively participate in the University Performance Development Framework
- ▶ Comply with occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 4

2. *Selection Criteria*

2.1 ESSENTIAL

- ▶ A PhD or equivalent in astrophysics
- ▶ An excellent record of research productivity and publication in astrophysics, relative to career opportunity
- ▶ A demonstrated ability to teach and inspire learning of physics at all levels and, in particular, to large groups of undergraduate students
- ▶ The ability to develop and teach astrophysics physics at graduate level
- ▶ Evidence of the ability or potential to attract research funding from competitive research bodies and other sources
- ▶ Clear potential in graduate student supervision
- ▶ Evidence of the ability to interact well with staff and to contribute to the administration of the School
- ▶ Excellent communication skills in English, both written and oral

2.2 ADDITIONAL ESSENTIAL CRITERIA AT LEVEL C

- ▶ Track record of gaining external competitive research grants and ability to develop research links with other schools/groups nationally and/or internationally
- ▶ Track record of success in graduate student supervision
- ▶ Track record of success in teaching at university level, and evidence of involvement in development of curricula at undergraduate/graduate level
- ▶ Evidence of leadership

2.3 DESIRABLE

- ▶ Experience of collaborative research
- ▶ Research interests that could provide synergies with and broaden the research activities of the astrophysics group

3. *Equal Opportunity, Diversity and Inclusion*

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the University's People Strategy 2015-2020 and policies that address diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to strive for excellence and reach the targets of Growing Esteem.

4. *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.

5. Other Information

5.1 SCHOOL OF PHYSICS

www.physics.unimelb.edu.au/

The University of Melbourne's School of Physics is one of Australia's leading Physics Schools. It has achieved this status through the high quality of its research and teaching programs. The School offers a wide range of physics subjects to undergraduate and postgraduate students, and performs research in the following areas: Astrophysics, Atomic, Molecular and Optical Physics, Experimental Condensed Matter Physics, Experimental Particle Physics, Material Science, Physical Biosciences, Theoretical Condensed Matter Physics and Theoretical Particle Physics.

The School of Physics hosts the ARC Centre of Excellence in Particle Physics at the Terascale and the Melbourne nodes of the ARC Centre of Excellence for Quantum Computation and Communication Technology, the ARC Centre of Excellence for Advanced Molecular Imaging and the ARC Centre of Excellence for All-Sky Astrophysics. The School also plays a major role in the Australian Synchrotron research program.

Currently some 25 academics, 51 research-only staff, more than 95 postgraduate students and 72 associates supported by 23 professional staff make up the School of Physics. The School additionally hosts an Australian Laureate Fellow, 5 ARC Future Fellows, and 4 ARC Discovery Early Career Researcher. Skilled technical staff operate, maintain and develop complex instrumentation and equipment to support the teaching and research activities of the School. The School is located in the David Caro building on the Swanston Street boundary of the University campus. The Head of School and the majority of the Professional staff are housed on the ground floor of the building to act as the first point of contact for students, staff and visitors.

5.2 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 50,000 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 \$290 million of income per annum, with a staff base in the order of 270 professional staff, and more than 580 academic staff.

We offer a range of undergraduate, honours, graduate and research degrees; enrolling over 8,600 undergraduate and 2,440 graduate students. The Faculty of Science is the custodial Faculty for the BSc (Bachelor of Science). The Faculty of Science is a leader in research, contributing approximately \$70 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 \$56 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.

5.3 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville 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. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

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>.

5.4 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/our-research/research-at-melbourne>

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.

5.5 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/governance>