RESEARCH FELLOW

DEPARTMENT/UNIT	School of Physics and Astronomy, ARC CoE in Future Low-Energy Electronics Technologies (FLEET)
FACULTY/DIVISION	Faculty of Science
CLASSIFICATION	Level A
WORK LOCATION	Clayton campus

ORGANISATIONAL CONTEXT

Everyone needs a platform to launch a satisfying career. At Monash, we give you the space and support to take your career in all kinds of exciting new directions. You'll have access to quality research, infrastructure and learning facilities, opportunities to collaborate internationally, as well as the grants you'll need to publish your work. We're a university full of energetic and enthusiastic minds, driven to challenge what's expected, expand what we know, and learn from other inspiring, empowering thinkers. Discover more at www.monash.edu.

The Faculty of Science works through frontiers via our research, teaching and our partnerships with industry, government and individual supporters. Our five Schools offer 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. In terms of research, our respected researchers are at the top of their game. Their work spans the theoretical to the applied, contributes to new knowledge and technologies, and challenges how we interact with the world. For more information about our Faculty, please visit monash.edu/science.

The School of Physics and Astronomy is a School located within the Faculty of Science. It aims to position itself as one of the top physics and astronomy research and teaching departments in Australia. The School is committed to teaching and research of the highest quality in astronomy, astrophysics, experimental physics, and theoretical physics. We are strongly committed to improving the diversity of our staff and students, and promoting a culture of equality, fairness, respect and openness. In 2015, the School received a Bronze Pleiades Award - Recognising Commitment to Advancing Women in Astronomy. This is an important first step in affirming women within the School, one that we can build upon. For more information about our School, please visit: physics.monash.edu.

The ARC CoE in Future Low-Energy Electronics Technologies (FLEET) is an international innovator in novel electronics technologies. Enabled by the new science of atomically thin materials, FLEET brings together over 40 world-leading experts to develop a new generation of ultra-low power devices. The team is highly interdisciplinary with high-profile researchers from atomic physics, condensed matter physics, materials science, electronics, nanofabrication and atomically thin materials.

With over $40M investment from the ARC and contributing organisations, FLEET is poised to make significant global impact in the electronics and energy sectors. By building strategic and strong partnerships with Australian and international industry, research institutions and government, FLEET aims to build capacity for advanced electronics research in Australia and train the workforce for the next generation of electronic materials researchers and future semiconductor industry. To learn more about FLEET, please visit our website: fleet.org.au.

At FLEET, we are committed to gender equity. Our goal is to achieve at least 30% women researchers and higher degree by research (HDR) students across FLEET. Please visit fleet.org.au/equity to learn more. We are also passionate about building future leaders in the field. All of our early career researchers and HDR students will take part in a comprehensive training program incorporating excellent supervision and professional development. To learn more about benefits of working with us, please visit fleet.org.au/collaborate.

POSITION PURPOSE

The Research Fellow will conduct research in theoretical condensed matter physics, where they will apply and develop many-body techniques to investigate exciton-polariton systems and/or ultracold atomic gases. There will be a particular focus on understanding and probing correlations both in and out of equilibrium.

The Research Fellow is expected to publish papers in high-impact journals, present results at major conferences and workshops, and to assist in the supervision of PhD and honours students in the Centre.

FLEET is invested in increasing the representation of women in the physics and materials science fields.

A Level A research-only academic is expected to contribute towards the research effort of the university and to develop research expertise through the pursuit of defined projects relevant to the particular field of research.

Reporting Line: The position reports to Associate Professor Meera Parish

Supervisory Responsibilities: Not applicable

Financial Delegation: Not applicable

Budget Responsibilities: Not applicable

KEY RESPONSIBILITIES

A Level A research only academic shall work with support, guidance and/or direction from staff classified at Level B and above and with an increasing degree of autonomy as the research academic gains in skill and experience.

Specific duties required of a Level A research-only academic may include:

1. Conduct research under limited supervision either as a member of a team or, where appropriate, independently and the production or contribution to the production of conference and seminar papers and publications from that research
2. Involvement in professional activities including, subject to availability of funds, including attendance at conferences and seminars in the field of expertise
3. Contribute at least 20 hours per year towards outreach activities and actively participate in FLEET research, mentoring and professional development programs
4. Attend FLEET workshops, seminars and 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
5. Provide advice within the field of the staff member's research to postgraduate students
6. Limited administrative functions primarily connected with the area of research of the academic (e.g. the preparation of competitive grants)
7. Co-supervision of major honours or postgraduate research projects within the field of the staff member's area of research

KEY SELECTION CRITERIA

Education/Qualifications

1. The appointee will have:

- A PhD in theoretical condensed matter physics or a closely related field from a recognised university

Knowledge and Skills

2. A strong background and expertise in theoretical physics, particularly quantum physics

3. A demonstrable record of high-impact, peer-reviewed publications in the field

4. Demonstrated ability to solve problems through innovative solutions

5. Excellent written communication and verbal communication skills with proven ability to effectively analyse information, communicate the aims and outputs of research projects in a range of formats including formal and informal oral presentations, refereed research papers and reports

6. The ability to work independently in a research environment (with limited supervision) and as part of an inter-disciplinary research team

7. Willingness to work on multidisciplinary problems and learn new skills

OTHER JOB RELATED INFORMATION

- Travel to other campuses of the University may be required
- There may be a requirement to work additional hours from time to time
- There may be peak periods of work during which 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.