



Position description

Lecturer/Senior Lecturer in Experimental or Theoretical Condensed Matter Physics

Department/Unit	School of Physics and Astronomy
Faculty/Division	Faculty of Science
Classification	Level B/C
Work location	Clayton campus
Date document created or updated	8 September 2017

Organisational context

Monash is a university of transformation, progress and optimism. Our people are our most valued asset, with our academics among the best in the world and our professional staff revolutionising the way we operate as an organisation. For more information about our University and our exciting future, please visit 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.

Position purpose

The position will be responsible for contributing to teaching and learning in the school, including participation in and development of innovative teaching and learning programmes in the undergraduate physics curriculum. You will build an outstanding independent research programme in theoretical or experimental condensed matter physics, with an international profile, and attract external funding from National Competitive Grants.

- **Reporting line:** The position reports to Head of School, Physics and Astronomy
- **Supervisory responsibilities:** Honours students, Postgraduate students and Postdoctoral Fellows
- **Financial delegation and/or budget responsibilities:** Nil

Key responsibilities

Level B

1. Participate in innovative teaching programmes, including the preparation and development of course material, and delivery of lectures, e-learning and group teaching
2. Preparation of assignments, laboratory-based exercises, examinations and other assessable coursework
3. Contribute to the undergraduate physics teaching program and in curriculum development, including the new coursework MSc in Physics
4. Participate in developing experimental, theoretical and/or computational physics teaching programmes.
5. Establish a strong, individual and independent programme of research, publish research outcomes, including publications in high impact journals, and foster postgraduate research training (supervise and mentor honours, MSc and PhD students)
6. Apply for National Competitive Research grants (e.g., ARC Discovery Project Grants, ARC LIEF etc.) and access other funding sources, both nationally and internationally
7. Initiate and develop collaborations with other research groups in the School, elsewhere at Monash and in Australia, and internationally
8. Contribute to the administration of the school's teaching and research activities
9. Propose and develop strategic objectives in theoretical/experimental physics for the school
10. Participate in School, Faculty of Science and university committees

Level C

1. Lead and participate in innovative teaching programmes, including the preparation and development of course material, and delivery of lectures, e-learning and group teaching
2. Provide leadership in the development and delivery of a new coursework MSc in physics
3. Preparation of assignments, laboratory-based exercises, examinations and other assessable coursework
4. Provide leadership in the undergraduate physics teaching program and in curriculum development and in developing theoretical and/or experimental physics teaching programme
5. Establish a strong, individual and independent programme of research, publish research outcomes, including publications in high impact journals, and foster postgraduate research training (supervise and mentor honours, MSc and PhD students)
6. Supervision and mentoring of postdoctoral fellows
7. Apply for National Competitive Research grants (e.g., ARC Discovery Project Grants, ARC LIEF etc.) and access other funding sources, both nationally and internationally
8. Develop collaborations with other research groups in the School, elsewhere at Monash and in Australia, and internationally
9. Contribute to the administration of the School's teaching and research activities
10. Propose and develop strategic objectives in theoretical/experimental physics for the School and participate in school, Faculty of Science and university committees

Key selection criteria

Level B

A **Level B** academic shall have qualifications and/or experience recognised by the university as appropriate for the relevant discipline area of Theoretical or Experimental Condensed Matter Physics. In determining experience relative to qualifications, regard is had to teaching experience, experience in research, experience outside tertiary education, creative achievement, professional contributions and/or contributions to technical achievement.

Education/Qualifications:

1. The appointee will possess:
 - Relevant academic qualifications, including a PhD in Experimental or Theoretical Condensed Matter Physics, or a closely related field

Knowledge and skill

2. Research achievements in Experimental or Theoretical Condensed Matter Physics, including a record of citations and significant publications in the highest impact physics journals
3. Capacity to develop a significant independent research program
4. Capacity to attract National Competitive Grants to fund research
5. Excellent written and verbal communication skills necessary to carry out the duties of the position

Level C

A **Level C** academic shall have qualifications and/or experience recognised by the university as appropriate for the relevant discipline area of Theoretical or Experimental Condensed Matter Physics. A position at this level will require a doctoral qualification or equivalent accreditation and standing. In determining experience relative to qualifications, regard shall be had to teaching experience, experience in research, experience outside tertiary education, creative achievement, professional contributions and/or contributions to technical achievement. In addition, a position at this level will normally require a record of leadership and demonstrable scholarly and professional achievement in the relevant discipline area.

Education/Qualifications:

1. The appointee will possess:
 - Relevant academic qualifications, including a PhD in Experimental or Theoretical Condensed Matter Physics, or a closely related field

Knowledge and skill

2. Experience supervising honours and postgraduate students
3. Research achievements in Experimental or Theoretical Condensed Matter Physics, including a strong record of citations and significant publications in the highest impact physics journals
4. Capacity to develop a significant independent research program
5. Evidence of a successful record of quality research supervision of higher degree research students, including evidence of successful completions and completion rates
6. Capacity to attract National Competitive Grants to fund research
7. Excellent written and verbal communication skills necessary to carry out the duties of the position

Other job related information

- Travel (e.g. to other campuses of the University) may be required
- There may be peak periods of work during which the 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.