



Postdoctoral Research Fellow in Experimental High Energy Physics

Department/Unit	School of Physics and Astronomy
Faculty/Division	Faculty of Science
Classification	Level A
Work location	Clayton campus
Date document created or updated	30/10/17

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. To learn more about the Faculty of Science, please visit our website: www.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.

In the 2015 national audit of research excellence (ERA), the School achieved the maximum overall rating of 5 for Physical Sciences, including the maximum rating of 5 in each of our assessed fields of research (spanning astronomy and astrophysics, atomic and molecular physics, nuclear physics, particle physics, condensed matter physics and optics).

The School's major research activities include:

- the ARC Centre of Excellence for Particle Physics at the Terascale (CoEPP),
- the ARC Centre of Excellence for Gravitational Wave Discovery (OzGrav),
- the ARC Centre of Excellence in Future Low-Energy Electronics Technologies(FLEET),
- the Monash Centre for Astrophysics (MoCA),
- the Monash Centre for Atomically Thin Materials(MCATM).

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: www.physics.monash.edu

Position purpose

We seek an experimental particle physicist to work as part of the Monash team within the COMET collaboration. COMET is searching for Charged Lepton Flavour Violation and is based at the JPARC facility in Japan.

The Research Fellow will be based at Monash, but work with members of the collaboration on preparing the COMET experiment for its initial Phase I running, as well as studies for the later Phase II of the experiment.

The Research Fellow will be expected to make significant contributions to the preparation of the Phase I detector, present results at major conferences and workshops, and to assist in the supervision of PhD and honours students in the School.

Reporting line: The position reports to Professor Jordan Nash

Supervisory responsibilities: Not applicable

Financial delegation and/or 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. Conducting 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. Establishing a programme of high-quality research in the area of experimental particle physics
3. Involvement in professional activities including, subject to availability of funds, including attendance at conferences and seminars in the field of expertise
4. Providing advice within the field of the staff member's research to postgraduate students
5. Limited administrative functions primarily connected with the area of research of the academic (e.g., the preparation of competitive grants)
6. 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. Relevant academic qualifications, including a PhD in experimental particle physics, or a closely related field, from a recognised university

Knowledge and Skills

2. Research achievements in experimental particle physics, including a record of scientific creativity, publications and citations in the highest impact physics journals
3. Potential to lead an independent research programme in experimental particle physics
4. 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
5. The ability to work independently in a research environment (with limited supervision) and as part of an international research collaboration
6. Potential to successfully supervise postgraduate research students
7. Potential to attract external research funding
8. Experience with analysis and simulation software used in experimental particle physics

Other job-related information

- After hours work may be required
- Overseas travel, and extended periods of work overseas may be required

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.