



## Research Fellow

<b>Department/Unit</b>	School of Physics and Astronomy
<b>Faculty/Division</b>	Faculty of Science
<b>Classification</b>	Level A
<b>Work location</b>	Clayton campus
<b>Date document created or updated</b>	20/11/2017

### 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](http://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](http://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](http://www.physics.monash.edu)

## Position purpose

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

The Research Fellow will conduct independent research in theoretical particle physics, focusing on high energy phenomenology, at the highest international levels. The position demands demonstrable productivity, scientific creativity and an exceptional technical knowledge of particle physics.

The incumbent will be expected to develop close working relationships with Professor Csaba Balazs, whose research fields focus on dark matter detection, supersymmetry discovery, isolating new physics at the Large Hadron Collider, and the baryon asymmetry of the Universe.

**Reporting Line:** The position reports to Professor Csaba Balazs

**Supervisory responsibilities:** Not applicable

**Financial delegation and/or budget responsibilities:** Not applicable

## Key responsibilities

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

1. The conduct of high quality 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, attendance at conferences and seminars in the field of expertise
3. Limited administrative functions primarily connected with the area of research of the academic
4. Development of a limited amount of research-related material for teaching or other purposes with appropriate guidance from other staff
5. Occasional contributions to teaching in relation to their research project(s)
6. Attendance at 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
7. Advice within the field of the staff member's research to postgraduate students

## Key selection criteria

### Education/Qualifications

1. The appointee will have a doctoral qualification in theoretical particle physics, or a closely related field

### Knowledge and Skills

2. Demonstrated analytical and manuscript preparation skills; including a track record of refereed research publications in highest impact physics journals
3. Ability to solve complex problems by using discretion, innovation and the exercise diagnostic skills and/or expertise
4. Well-developed planning and organisational skills, with the ability to prioritise multiple tasks and set and meet deadlines
5. Excellent written communication and verbal communication skills with proven ability to produce clear, succinct reports and documents
6. A demonstrated capacity to work in a collegiate manner with other staff in the workplace
7. Experience with phenomenology of theories beyond the Standard Model of particle physics
8. Some experience with particle astrophysics and/or particle cosmology

## **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.