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|  | Position Description |

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| **College/Division:** | ANU College of Physical and Mathematical Sciences |
| **Faculty/School/Centre:**  | Research School of Physics and Engineering |
| **Department/Unit:**  | Laser Physics Centre |
| **Position Title:**  | Research Fellow |
| **Classification:** | Academic Level B  |
| **Position No:** |  |
| **Responsible to:** | Professor Ken Baldwin, Laser Physics Centre |

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| **PURPOSE STATEMENT:**The Research Fellow will support an ARC Discovery Project to undertake experimental studies and high-accuracy spectroscopic measurements of tune-out and magic wavelengths to yield a new test of quantum electrodynamics. The experiments will be undertaken on our state-of-the-art metastable helium Bose-Einstein condensate (BEC) facility. The position will carry out activities to develop research expertise relevant to the field of study.KEY ACCOUNTABILITY AREAS:Position Dimension & Relationships: The position will work under the broad direction of Professor Ken Baldwin, and collaborate closely with other researchers including Professor Andrew Truscott, in the Metastable Helium BEC Laboratory within the Laser Physics Centre, and will help supervise honours, intern and postgraduate students.**Role Statement:**Under the broad direction of the Professor Ken Baldwin, the Research Fellow will:1. Undertake independent research on precision measurements in ultracold atomic physics with a view to publishing original and innovative results in refereed journals, present research at academic seminars and at national and international conferences, and collaborate with other researchers at a national and/or international level. This includes working as part of a team on an externally funded project subject to deadlines and being primarily responsible for project delivery in some areas
2. Develop high-precision experimental methods for measuring tune-out and magic wavelengths.
3. Engage with theoretical collaborators to interpret and design experiments.
4. Actively seek and secure external funding including the preparation and submission of research proposals to external funding bodies.
5. Subject to the requirements of the funding source and where an opportunity exists, the occupant may be encouraged/asked to contribute to the teaching activities of the School at the undergraduate and graduate levels. This includes, but is not limited to, the preparation and delivery of lectures and tutorials, the preparation of online material, marking and assessment, consultations with students, acting as subject coordinators and the initiation and development of course/subject material.
6. Supervise students working on individual or group projects at undergraduate, honours, graduate-coursework levels. Assist with supervision of research students
7. Supervise less senior academic staff and research support staff in your research area
8. Actively contribute to all aspects of the operation of the School
9. Assist in outreach activities including to prospective students, research institutes, industry, government, the media and the general public
10. Maintain high academic standards in all education, research and administrative endeavours
11. Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity
12. Undertake other duties as required, consistent with the classification of the position.

**Skill Base**A **Level B** **Academic** will normally have completed a relevant doctoral qualification or have equivalent qualifications or research experience.In addition he/she may be expected to have had post-doctoral research experience that has resulted in publications, conference papers, reports or professional or technical contributions that give evidence of research ability. |

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| **SELECTION CRITERIA:**1. A PhD in atomic and/or optical physics, or related area, with a track record of independent research in the field of experimental physics as evidenced by publications in peer-reviewed journals and presentations at conferences, a record of developing and maintaining collaborations and by other measures such as awards, invitations to give talks at leading conferences etc.
2. Significant experience that is relevant to precision measurement and/or ultracold atomic physics researchwith the ability to articulate and prosecute innovative research in this field.
3. Demonstrated experience in experimental methods including Bose-Einstein condensation, metastable helium ultracold atomic physics and/or spectroscopy, and optical precision measurement.
4. The ability to supervise and graduate high quality PhD/Masters research students .
5. Excellent oral and written English language skills and a demonstrated ability to communicate and interact effectively with a variety of staff and students in a cross-disciplinary environment and to foster respectful and productive working relationships with staff, students and colleagues at all levels.
6. The ability to work as part of a team, meeting deadlines and being primarily responsible for delivery of the project in some areas.
7. A demonstrated understanding of equal opportunity principles and policies and a commitment to their application in a university context.
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| **Delegate Signature:** |  | **Date:** | 8 August, 2018 |
| Printed Name: | Professor Ken Baldwin | **Uni ID:** | U8413914 |

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| **References:** |
| [Academic Minimum Standards](http://info.anu.edu.au/hr/Salaries_and_Conditions/Enterprise_Agreement/2010-2012/Schedule_4) |