

DIVISION OF INFORMATION & COMMUNICATION SCIENCES

Department Of Physics

Experimental Quantum Science

(Level B/C), Full-time (Continuing)

Ref. 21373 & 21374

Macquarie University in Sydney Australia, seeks applicants to join its Quantum Information Science and Security (QISS) research group. With a cross-disciplinary team that includes experts in optics, condensed matter physics, theoretical physics, computer science, statistics and chemistry, Macquarie University is building a unique team to forge new innovative research discoveries in quantum science and technology. Quantum information science is driving a wide range of new technologies such as quantum computers, quantum materials, quantum cryptography, quantum simulations and quantum algorithms and the addition of experimental quantum expertise will open up new exciting routes for interdisciplinary research.

With eight staff, the QISS group participates in large research projects such as the Centre for Quantum Computer Technology (Australian Research Council), Qubit Applications (European Commission), and a number of other multinational projects in quantum information science. The physics department is also host to substantial research efforts in photonics (including participation in the ARC Centre of Excellence CUDOS), astronomy and condensed matter physics.

The University wishes to expand the experimental component of the QISS research effort and is offering two continuing posts (level B/C: Lecturer/Senior Lecturer), in experimental quantum science. These posts enjoy relocation costs, reduced teaching load and start up funding. Applicants with expertise in the areas of:

- ◆ Experimental quantum optics & quantum communication
- ◆ Condensed matter quantum science including
 - Quantum dots
 - Superconducting quantum science
 - Diamond related quantum science
- ◆ Experimental quantum science using trapped neutral or charged atoms (AMO quantum science)

are particularly invited to apply. For more information about the Macquarie University QISS group surf to <http://www.ics.mq.edu.au/qiss>, and the Macquarie University Physics Department, <http://www.physics.mq.edu.au/>

Essential Criteria (Level C): PhD in Physics or relevant discipline; A currently active research program and a history of successful research programs in quantum science; A demonstrated ability to communicate with colleagues, students, and the community in an inspiring and engaging manner; A demonstrated ability to manage research projects; Evidence of capacity to build research collaborations including attracting research Fellows as co-workers; A strong record of international quality refereed publications and recognition as a leader nationally within the area of interest; A demonstrated ability

to attract external research grants including competitively awarded personal Fellowship awards as appropriate; A demonstrated ability to attract and successfully supervise postgraduate research students with a significant number of completions; Significant university teaching experience including the preparation and delivery

Essential Criteria (Level B): PhD in Physics or relevant discipline; a currently active research program in quantum science; A demonstrated ability to communicate with colleagues, students, and the community in an inspiring and engaging manner; A demonstrated ability to manage research projects; A strong record of international quality refereed publications; A demonstrated ability to attract external research grants including personal Fellowship awards as appropriate; A demonstrated ability to attract and successfully supervise postgraduate research students; Significant university teaching experience including the preparation and delivery of undergraduate and postgraduate courses, and a willingness to actively participate in teaching at all student levels.

Enquiries: Prof Jason Twamley on + 61 (2) 9850 8908 or jtwamley@ics.mq.edu.au

This position is available on a full-time (continuing) basis. Applicants should be available to start by early 2009 subject to visa approvals. Selection criteria must be addressed in the application.

Package (Level C): From \$99,896 pa, including base salary \$84,413 to \$97,239 pa, annual leave loading and 17% employer's superannuation.

Package (Level B): From \$81,682 pa, including base salary \$69,022 to \$81,847pa, annual leave loading and 17% employer's superannuation.

The appointment is currently governed by the terms of the Macquarie University Enterprise Agreement 2006-2009. Please visit <http://macquarieuniversity.nga.net.au> to apply online.

Closing date: 30 June 2008

Please note that only those applications submitted via the Macquarie University Online Recruitment System will be accepted.