

**PRIORITY RESEARCH CENTRE
COMPUTER ASSISTED RESEARCH MATHEMATICS
AND ITS APPLICATIONS**



**FACULTY OF SCIENCE AND INFORMATION TECHNOLOGY
School of Mathematical and Physical Sciences**

EOI - Research Associate

Exciting opportunities exist for Research Associates in Mathematics within the University of Newcastle's Priority Research Centre for *Computer Assisted Research Mathematics and Its Applications* (CARMA) www.carma.newcastle.edu.au . Under the leadership of Laureate Professor and CARMA Director Jonathan Borwein, the Centre has strengths in Functional Analysis, Discrete Mathematics, Number Theory, Topological Algebra, Experimental and Computational Mathematics, Numerical Analysis, and Operations Research/Optimisation.

If you are a strong recent PhD with interests in computational mathematics then you should apply. Research strengths in special functions, computational number theory and symbolic computation will be highly regarded. Some mathematical physics and numerical analysis background is also of particular interest.

These positions are available on a 2 – 3 year contract with a potential to be extended.

Level of appointment will be Academic Level A Step 6 with an initial annual salary of \$63572 and the possibility of additional sessional teaching.

Expressions of Interest should include your CV and 2 references to:

Juliane Turner
School of Mathematical and Physical Sciences
The University of Newcastle
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E Juliane.Turner@newcastle.edu.au



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PhD Scholarship Opportunities

“Computer Assisted Research Mathematics and its Applications Newcastle (Australia)

Scholarship descriptions

Expressions of interest are now sought for one or more PhD places with scholarships at The University of Newcastle (Australia), in the area of *Computer Assisted Research Mathematics and its Applications*.

The School of Mathematical and Physical Sciences at the University of Newcastle is offering a University of Newcastle Research Scholarship (External) worth AU\$26,140 per annum. The scholarship will be funded under an Australia Research Council (ARC) Discovery Grant.

Expressions of interest for this scholarship can be made at any time. Eligible Australian and New Zealand students can get further information about scholarships at the following website <http://www.newcastle.edu.au/students/research-higher-degree/>

Eligible international students should simply follow the instructions below for registering interest.

This students will be supervised---or cosupervised---by Laureate Professor Jon Borwein, Director of the University Priority Research Centre in *Computer Assisted Research Mathematics and its Applications*, www.carma.newcastle.edu.au.

Availability

This scholarship is offered for 3 years, which is the normal period of PhD studies in Australia. In Australia PhD students are not required to do any teaching or other duties: students focus on conducting their research and writing their PhD thesis. Expressions of interest are preferred before November 30, 2010. The scholarship is available for study in the School of Mathematical and Physical Sciences at the University of Newcastle, for study preferably starting late in 2010, however some flexibility is possible depending on the potential applicant's situation. For further information on the School and the University, refer to enclosed sections below, or go to <http://www.newcastle.edu.au/school/mathematical-physical-sciences/> or <http://www.newcastle.edu.au/>. For further information about Newcastle, refer to sections below, or visit <http://www.visitnewcastle.com.au/visitnewcastle.asp>



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Payment information

The scholarship awards include a living allowance of \$26,669 per annum. Note: Stipend rates are indexed annually. The provision also exists for a relocation allowance and a thesis allowance. This scholarship is paid fortnightly for the period of up to 3 years.

Applicant attributes

The successful applicants will hold an undergraduate degree, and have undertaken some form of preliminary research training in mathematics, computer science, or related discipline. Strong mathematical and computer programming skills are essential and knowledge of special functions, computational number theory and symbolic computation is an asset. Some mathematical physics and numerical analysis background would be an asset. A can-do attitude, and excellent communication skills, will also go a long way to making you a successful applicant.

Eligibility

This scholarship is for study in Australia for those who have achieved Honours 1 or equivalent, or Honours 2a or equivalent, in their undergraduate degrees, or who have an appropriate higher qualification. Students who have taken Bachelor of Science degrees will need to have taken an Honours year or similar further study. Engineering students can apply immediately after completion of their Bachelor's degree, provided their Honours score is sufficiently high. International students will have to meet equivalent standards.

Expression of Interest details

To express your interest in this scholarship please send your CV, together with an academic transcript showing details of all courses you have taken, the grades you were awarded, an interpretation of those grades, and the names and contact details of at least two people who can provide confidential references, to the address shown below. If your transcript is not in English, please provide an English translation. If you have completed a thesis or other publications, please feel free to include them in the email application. Include details of your computer programming skills and experience and your mathematical training and background. Please also indicate your possible start dates for study.



www.newcastle.edu.au

The University of Newcastle

The University of Newcastle is a major research university in Australia, increasingly recognised internationally as a rapidly emerging educational institution. The University of Newcastle is ranked in the top ten in Australia for research funding and outcomes, and is one of the world's top 100 universities for engineering / technology and computer sciences (Shanghai Jiao Tong University rankings by field 2007).

The main campus is located in the city of Newcastle: on the coast about two hours drive north from Sydney. The School of Mathematical and Physical Sciences provides a stimulating and supportive environment for research and teaching, with ample opportunities for collaborative research partnerships both within the university and with industry. Although well known for its beautiful beaches and pleasant climate, Newcastle is home to a significant port, and Australia's largest coal-handling terminal. Newcastle is also at the gateway of one of Australia's largest wine-growing regions, the Hunter valley. In addition, Newcastle is home to top-class medical and medical research facilities, affiliated with the University, which is ranked 63 in the world for biomedical research. Thus opportunities for research in shipping, transportation, mineral resources, agriculture, health and medicine abound.

The School of Mathematical and Physical Sciences offers Bachelor degree programs, with a Bachelor of Mathematics, and a joint Bachelor of Mathematics/Computer Science, as well as teaching into Bachelors of Science and Engineering, Master degree programs (Master of Medical Physics and Master of Mathematics) and a Ph.D. program.

Research strengths of the school include the areas of discrete mathematics, functional analysis, topological algebra, statistics, medical physics, surface physics, and plasma waves. New strengths in the areas of computational applied mathematics and operations research/optimization are now being developed.

Main contact

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W www.newcastle.edu.au/research/rhd/scholarships.html