



**POSTDOCTORAL RESEARCH ASSOCIATE/RESEARCH FELLOW POSITIONS IN INTEGRABLE SYSTEMS AND NEAR-INTEGRABLE NON-LINEAR SYSTEMS  
SCHOOL OF MATHEMATICS AND STATISTICS  
REFERENCE NO. 1272/0812**

- Create new mathematical methods to describe critical solutions of non-linear systems
- Work closely with Georgina Sweet Australian Laureate Fellowship
- Remuneration package: \$92K-\$124K p.a.

The University of Sydney is Australia's first university with an outstanding global reputation for academic and research excellence. It employs over 7500 permanent staff supporting over 49,000 students.

[The School of Mathematics and Statistics](#) is one of the largest in Australia with research strengths in many areas of mathematics and statistics. The school attracts a strong body of excellent students as well as Australian Research Council (ARC) grants, fellowships, and other competitive external funding.

Applications are sought for up to two Postdoctoral Research Associate (level A)/Research Fellow positions (level B) in integrable systems and near-integrable non-linear systems. The positions are full-time fixed-term for up to five years, and are funded as part of Professor [Nalini Joshi](#)'s 2012 Georgina Sweet Australian Laureate Fellowship.

You will be expected to contribute to the success of the project named "Geometric construction of critical solutions of non-linear systems" which aims to create new mathematical methods to describe critical solutions of non-linear systems that are ubiquitous in modern science.

This is an opportunity to conduct research in a collaborative research team based at the School of Mathematics and Statistics at the University of Sydney. You will also have the opportunity to co-supervise students, and to apply for additional research funding through the competitive grant schemes of the ARC. More specifically you will work on research-level mathematical problems related to integrable systems and near-integrable non-linear systems.

As a minimum requirement you must have:

- doctoral qualifications in mathematics, or equivalent
- potential for significant research discovery as evidenced by level of academic achievements, publications and research reports, and evaluation of referees
- a good theoretical understanding of integrable systems
- demonstrated ability to conduct research/scholarly activities under limited supervision either independently or as a member of a team
- good written and verbal communication skills.

Prior research experience in non-linear analysis, singularity theory, asymptotic analysis, special functions or geometry related to non-linear and/or integrable systems will be highly regarded.

The positions are full-time fixed-term for five years subject to completion of a satisfactory probation and confirmation period for new appointees. Membership of a University approved superannuation scheme is a condition of appointment. The level of appointment will be commensurate with qualifications and experience.

**Remuneration package:** \$92K-\$124K p.a. including \$78K-\$105K p.a. base salary, leave loading and up to 17% superannuation. Some support towards relocation and visa sponsorship will be available for the successful appointees if required.

**All applications must be submitted via the University of Sydney careers website.** Visit [sydney.edu.au/positions](http://sydney.edu.au/positions) and search by the reference number for more information and to apply.

**CLOSING DATE:** 31 October 2012 (11:30PM Sydney time)

The University is an Equal Opportunity employer committed to equity, diversity and social inclusion. Applications from equity target groups and women are encouraged as they are underrepresented in this field.