



News

General News

The CSIRO-ANZIAM Student Support Scheme for attendance at the ANZIAM and special interest group conferences

The CSIRO/ANZIAM Student Support Scheme (SSS) is designed to provide funding to support conference travel and registration for students studying at universities in Australia and New Zealand, who wish to attend the ANZIAM conference or meetings of the special interest groups. These are, specifically, the Maths in Industry Study Group (MISG), the CTAC conference of the Computational Mathematics Group, the EMAC conference of the Engineering Mathematics Group and the Mathsport conference of the Mathematics and Computers in Sport Group. The scheme will be funded by the annual sponsorship that has been provided to ANZIAM by CSIRO, together with any supplementary funding that the ANZIAM Executive may wish to vote.

More details and the application form can be found at <http://www.anziam.org.au/The+CSIRO-ANZIAM+Student+Support+Scheme>.

This scheme is particularly relevant to three upcoming conferences:

- EMAC 2009, <http://www.maths.adelaide.edu.au/emac2009/>;
- ANZIAM 2010, <http://www.math.canterbury.ac.nz/ANZIAM/>;
- MISG 2010, <http://www.rmit.edu.au/math/misg>.

The objectives of the SSS are:

- To help students attend conferences relevant to their interests;
- To emphasize the importance of students giving presentations about their work;
- To provide a first step educating students in ways of obtaining funding to help their research efforts.

In order to be eligible for funding, students will be required to present a talk at the conference. It is expected that students will have discussed their plans with their supervisors, and supervisor endorsement of applications is required.

If students are not already members of ANZIAM, they must join at the time of making their application. The committee may wish to give preference to students who are already members of ANZIAM themselves and whose supervisors are members of ANZIAM, who will be attending the same conference.

Ibni Oumar Mahamat Saleh Prize

The mathematician and politician Ibni Oumar Mahamat Saleh from Chad was kidnapped over a year and a half ago. One year ago, a Chadian commission of inquiry concluded that he was dead. His death probably occurred very rapidly after his removal by the Chadian armed forces. The complete truth, collectively demanded by the international mathematical community, is still not known.

A prize named Ibni Oumar Mahamat Saleh has been created, in his memory and to continue his commitment to mathematics in Africa, by the three French mathematical societies, SFdS, SMAI and SMF. The prize will be awarded annually to a young mathematician from Africa by a scientific committee set up by International Centre for Pure and Applied Mathematics (CIMPA), and will fund a scientific visit. An international subscription to support the prize will be established.

The schedule for the prize is as follows: launch of the subscription on October 1; launch of first call for applications on October 1, with an application deadline of November 15; choice of the first recipient before 31 December 2009.

ICIAM 2011

Professor Kerry Landman (University of Melbourne) will be one of the principal invited speakers at ICIAM 2011 in Vancouver. This is a rare achievement for an Australian and indicates Kerry's standing in international applied mathematical research.

ICM 2010

The invited speakers at the ICM 2010 have now been announced. There are two invited Sectional Speakers from Australia: Professors Norm Dancer and Brendan McKay. For more information, see <http://www.icm2010.org.in/speakers.php>.

Australian National University

Kelly Wicks has taken over from John Cossey as local correspondent. The editors of the *Gazette* thank John for his time as correspondent.

University of Newcastle

A conference was held on 30 October to 1 November to mark the official opening of University of Newcastle's Priority Research Centre 'Computer Assisted Research in Mathematics and its Applications'. The proceedings included a dinner in honour of Professor John Giles.

University of Wollongong

James McCoy has taken over from Rod Nilsen as local correspondent. The editors of the *Gazette* thank Rod for his time as correspondent.

Completed PhDs

Australian National University

- Dr Paurus Bharucha, *Amenability properties and their consequences in Banach algebras*, supervisor: Dr Rick Loy.

- Dr Robert Scealy, *V-variable fractals and interpolation*, supervisor: Professor John Hutchinson.

La Trobe University

- Dr Kie Van Ivanky Saputra, *Semi-global analysis of Lotka–Volterra systems with constant terms*, supervisor: Reinout Quispel.

Royal Melbourne Institute of Technology

- Dr James Cameron Bennett, *Mathematical analysis of film blowing*, supervisors: Associate Professor John J. Shepherd, Associate Professor William F. Blyth.

Swinburne University of Technology

- Dr Aspriha Chakraborty, *A theoretical study on the effect of prey-taxis on biological control of two-spotted spider mite*, supervisors: Dr Manmohan Singh, Dr David Lucy and Dr Peter Ridland.

University of Adelaide

- Dr Paul Dabrowski, *Boundary-layer flows in non-Newtonian fluids*, supervisor: Jim Denier.
- Dr Ashley Flavel, *BGP, not as easy as 1-2-3*, supervisors: Matthew Roughan, Nigel Bean, Olaf Maennel.
- Dr Roger Webby, *Applications of conditional value-at-risk to water resources management*, supervisors: Andrew Metcalfe, Philip Howlett (University of South Australia) and John Boland (University of South Australia).
- Dr Edward Whitehead, *The stability of multiple wing-tip vortices*, supervisor: Jim Denier.

University of Ballarat

- Dr Bahadorreza Ofoghi, *Enhancing factoid question answering using frame semantic-based approaches*, supervisors: Professor John Yearwood, Dr Liping Ma.
- Dr Shamshul Huda, *Hybrid training approaches to hidden Markov model based acoustic model for automatic speech recognition*, supervisors: Professor John Yearwood, Dr Eldar Hajilarov, Dr Adil Baghirov.
- Dr Guillermo Pineda-Villavicencio, *Improving upper and lower bounds on the order of large graphs under degree and distance constraints*, supervisors: Professor John Yearwood, Professor Mirka Miller.

University of Melbourne

- Dr Ashish Gupta, *Irreducible representations of some classes of quantum Laurent polynomials*, supervisor: John Groves.

- Dr Matthew Zuparic, *Studies in integrable quantum lattice models and classical hierarchies*, supervisor: Omar Foda.

University of Newcastle

- Dr Sean Vitadello, *The representation theory of numerical semigroups and the ideal structure of Exel's crossed product*, supervisor: Professor Iain Raeburn.
- Dr Trevor Moffiet, *Bivariate relationship modelling on bounded spaces with application to the estimation of forest foliage growth cover by Landsat satellite ETM-plus sensor*, supervisors: Professor Kerrie Mengersen and Dr Robert King.
- Dr Natasha Weaver, *A family of higher-rank graphs arising from subshifts*, supervisors: Professor Iain Raeburn and Dr David Pask.

University of New South Wales

- Dr Dalia Terhesiu, *On the approximation of finite and infinite equilibrium states and some aspects of young towers with non-integrable return function*, supervisors: Gary Froyland and Jim Franklin.

University of South Australia

- Dr Amie Albrecht, *Integrating railway track maintenance and train timetables*, supervisor: Associate Professor David Panton.
- Dr Giang Nguyen, *Hamiltonian cycle problem, Markov decision processes and graph spectra*, supervisor: Professor Jerzy Filar and Associate Professor Vladimir Ejov.
- Dr Thao Tran, *Design and analysis of experiments for assessing indigenous plant species*, supervisors: Dr Chris Brien and Assoc. Professor John Boland.

Awards and other achievements

Australian National University

- Dr Andrew Hassell and Dr Rowena Ball are the MSI's successful recipients of the 2009 ARC Future Fellowships.

Swinburne University of Technology

- Professor William Phillips, Professor A.V. Babanin and Dr A. Ganopolski have been successful with an ARC Discovery proposal, entitled 'Wave induced upper ocean mixing', with funding to commence in 2010. The total funding is \$310 000.

University of Queensland

- Dr A.J. Richardson was awarded an Australian Research Council Future Fellowship, to work on 'The resilience of marine ecosystems and fisheries to climate change: exploring adaptation strategies'.

- Professor Hugh Possingham and the Marxan Development Team have won a prestigious Australian Museum Eureka Prize in Environmental Research. Marxan is considered to be the most significant contribution to conservation biology to emerge from Australia's research community. The software program evolved out of a PhD thesis by Dr Ian Ball (Australian Antarctic Division, Department of Environment, Water, Heritage and the Arts) in collaboration with his supervisor, Professor Hugh Possingham, and Matthew Watts (The Ecology Centre, University of Queensland).
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Appointments, departures and promotions

AMSI

AMSI is pleased to announce the appointment of Professor Geoffrey Prince as AMSI Director.

We welcome Professor Prince's appointment and look forward to AMSI's continued success as an advocate for the mathematical sciences in Australia and as a vehicle for delivering projects of value to the mathematics fraternity and the community at large.

In welcoming Geoff to this role we would like to acknowledge Professor Phillip Broadbridge's sterling contribution to, and leadership of, AMSI — both during his tenure as Director and during the interregnum between his move to LaTrobe and the announcement of Geoff's appointment.

We look forward to Geoff's leadership of AMSI and to the strengthening of AMSI's contribution to the well-being of mathematics in Australia and delivery of value to our Member institutions under his leadership.

<http://www.amsi.org.au/index.php/news/87-general-and-outreach-news/335-professor-geoffrey-prince-is-appointed-as-amsi-director>

La Trobe University

- Geoff Prince has taken up the position of Director of the Australian Mathematical Sciences Institute. He will remain employed by the department for one day per week.
- Dion ONeale has been appointed as a Research Officer in August 2009.

Swinburne University of Technology

- Postdoctoral fellowship for Dr Aspriha Chakraborty: Max Planck Institute for Demographic Research, Rostock, Germany. Starting date: October 2009.

University of Ballarat

- Professor David Gao from Virginia Tech University, USA, joins Graduate School of Information Technology and Mathematical Sciences as Alexander Rubinov Professor of Mathematics at the beginning of 2010.

University of Melbourne

- Geoff Prince has been appointed as Director of the Australian Mathematical Sciences Institute.
- Aleks Owczarek and Paul Pearce have been promoted to Professor.
- Mr Brendan Kite has been appointed as OR Consultant.
- Dr Daniel Tokarev has been appointed as Research Fellow/MASCOS.

University of Newcastle

- Dr Frank Tuyl has been appointed as Lecturer in Statistics.
- Dr Eric Beh has been appointed as Associate Professor in Statistics. Eric was previously at University of Western Sydney.

University of New South Wales

- Astrid an Huef, Senior Lecturer in the School of Mathematics and Statistics, has been appointed to the Chair of Pure Mathematics at the University of Otago. Astrid has been with the School for eight years, researching in operator algebras.

University of Queensland

- Dr Barbara Maenhaut and Dr Phil Isaac have been appointed continuing lecturer positions in Mathematics.

University of Technology, Sydney

- Christopher Poulton, Department of Mathematical Sciences, has been promoted to senior lecturer.

University of Wollongong

- Professor Tim Marchant has been appointed Dean of Research.
- Associate Professor Jacqui Ramagge has taken over as Head of the School of Mathematics and Applied Statistics.

New Books**University of New South Wales**

- Franklin, J. (2009). *What Science Knows: And How It Knows It*. Encounter Books, New York.
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Conferences and Courses

Conferences and courses are listed in order of the first day.

Workshop on New Currents in Geometry in Australia

Date: 16–18 November 2009

Venue: University of Adelaide

Web: <http://www.iga.adelaide.edu.au/WorkshopNov09.html>

The Institute for Geometry and its Applications (IGA) will host a Workshop on New Currents in Geometry in Australia highlighting the work of early career researchers. The workshop is supported by the Australian Mathematical Sciences Institute (AMSI).

Research in geometry in Australia is being broadened and strengthened by young researchers who have joined universities around the country in recent years. In addition to lectures by many of the younger mathematicians working in geometry in Australia today, the workshop will provide an opportunity for informal discussions focused on new ideas and new directions in the diverse and interrelated geometric areas of mathematics.

The workshop is the first event in the IGA Special Year in Geometry and its Applications.

Speakers (more to be added): David Baraglia (Oxford University); Julie Clutterbuck (Australian National University); Ilya Kossovskiy (Australian National University); Thomas Leistner (University of Adelaide); Pengzi Miao (Monash University); Peter Milley (University of Melbourne); Todd Oliynyk (Monash University); Adam Rennie (Australian National University); Peter van der Kamp (La Trobe University); Bryan Wang (Australian National University); Craig Westerland (University of Melbourne); Feng Xu (Australian National University); Hao Yin (University of Queensland).

Organisers: Finnur Larusson, Michael Murray and Mathai Varghese.

Joint meeting of the NSW–ACT ANZIAM branches

Date: Friday 4 December and Saturday 5 December 2009

Venue: Coachhouse Marina Resort, Batemans Bay

Web: <http://www.coachhouse.com.au>

A limited amount of money is available to contribute towards the costs of student presenters (provided that they are members of either ACT or NSW ANZIAM). This will take the form of a contribution towards accommodation and travel costs. A prize will be awarded for the best student presentation.

Further details (including registration fees and accommodation costs) will be released shortly. Please do not book your accommodation at this time.

During the meeting the NSW and ACT branches will hold their annual general meetings to elect committees for 2010. Anyone wishing to stand for election should contact Mark Nelson (NSW Branch Secretary, E-mail: mnelson@uow.edu.au), or Harvi Sidhu (ACT Branch President, Email: h.sidhu@adfa.edu.au).

Joint meeting of the SA–Victoria ANZIAM branches

Date: Saturday 5 December and Sunday 6 December 2009

Venue: Pinnacle Holiday Lodge, Halls Gap, Victoria

Contact: simon.clarke@monash.edu.au

Guest Speaker: Dr Mary Myerscough, University of Sydney.

Registration (including conference dinner): \$100 non-students, students free. To register and book accommodation, email simon.clarke@monash.edu.au.

- Abstracts of 200 words or less on any aspect of applied mathematics should be sent to simon.clarke@monash.edu.au.
- Submissions from Early Career Researchers and students are particularly encouraged.
- Best student talk will receive a prize of \$200.
- Meeting will include the AGM of the Victorian Branch.

Download the flyer: http://www.austms.org.au/tiki-download_file.php?field=7.

Logic Summer School

Date: 7–18 December 2009

Venue: The Australian National University

Web: <http://lss.rsise.anu.edu.au>

Contact: lss@mail.rsise.anu.edu.au

Phone: +61 2 6125 4043; Fax: +61 2 6125 0010

The Australian National University (ANU) has an exciting opportunity for IT professionals, senior educators and students to enhance their logic and reasoning skills for the workforce, for teaching, or for higher degree by research study, in a two-week intensive summer school at the ANU.

The Logic Summer School comprises a blend of practical and theoretical short courses on aspects of pure and applied logic taught by international and national experts. The school provides a unique learning experience for all participants, backed up with state-of-the-art computational science facilities at the ANU.

Presenters: Professor John Slaney (ANU); Dr Rajeev Goré (ANU); Dr Peter Baumgartner (NICTA); Dr Michael Norrish (NICTA); Dr Andreas Bauer (NICTA); Dr Alwen Tiu (ANU); Professor Torsten Schaub (University of Potsdam, Germany); Dr Patrik Haslum (NICTA); Dr Errol Martin (EP Martin Consulting).

Fees:

Professionals: \$1650 per person. Discounts are available for multiple registrations from individual companies and institutions.

Students in full-time education: \$120 per person. Scholarships are available and are assessed on a case-by-case basis. The web site has more details.

Registrations after Friday 6 November 2009, are subject to a 20% surcharge.

9th Engineering Mathematics and Applications Conference (EMAC2009)

Date: 6–9 December 2009

Venue: University of Adelaide, South Australia

Web: <http://www.maths.adelaide.edu.au/emac2009/>

Contact: Andrew Metcalfe (andrew.metcalfe@adelaide.edu.au)

2009 New Zealand Mathematics Colloquium

Date: 8–10 December 2009

Venue: Massey University, Albany

Web: <http://nzmc2009.massey.ac.nz/>

Contact: Michelle Campbell (m.l.campbell@massey.ac.nz)

The New Zealand Mathematics Colloquium is an annual event that covers all aspects of mathematics and its applications and which allows New Zealand and overseas mathematicians to meet together. This year the Colloquium will be hosted by the Institute of Information and Mathematical Sciences at Massey University's Albany Campus from Tuesday 8 December to Thursday 10 December 2009. Members of the Organising Committee and the Institute look forward to welcoming participants onto our beautiful campus.

The list of plenary speakers for the 2009 Colloquium is: Shaun Cooper (Massey University, Albany); Mike Hendy (Massey University, Manawatu); Shaun Hendy (MacDiarmid Institute for Advanced Materials and Nanotechnology, Wellington); Kerry Landman (University of Melbourne); Alan Reid (University of Texas, Austin).

4th Australia–China Optimisation Workshop

Date: 9–11 December 2009

Venue: Ballarat

Web: <http://www.ballarat.edu.au/ard/itms/CIAO/Workshops/ACOW/>

Contact: Adil Baghirov (a.bagirov@ballarat.edu.au)

AMSI workshop: New Directions in Geometric Group Theory

Date: 14–18 December 2009

Venue: The University of Queensland, Brisbane

Web: <http://sites.google.com/site/ggtbrisbane/>

Registration: <http://sites.google.com/site/ggtbrisbane/registration>

The workshop will be held from Monday to Friday. In addition to research talks by a strong list of speakers at the cutting edge of the field, we will have two introductory short courses given by Danny Calegari and Graham Niblo, as well as

a special series of ‘What is ...?’ lectures for non-experts on various new topics in the field.

There is no deadline for registration. However, for catering purposes and reservation of accommodation, you should contact the organisers as soon as possible if you’re intending to attend the workshop.

Confirmed speakers: Noel Brady (University of Oklahoma); Danny Calegari (California Institute of Technology); Indira Chatterji (Universite d’Orleans/Ohio State); Daryl Cooper (University of California at Santa Barbara); Yves de Cornulier (CNRS/Rennes); Moon Duchin (University of Michigan); Danny Groves (University of Illinois at Chicago); Elmas Irmak (Bowling Green State University); Joseph Maher (CUNY); Jon McCammond (University of California at Santa Barbara); Masato Mimura (University of Tokyo); Walter Neumann (Columbia University/Barnard College); Graham Niblo (Southampton); Anne Thomas (Oxford).

NZIMA/NZMRI Summer Workshop

Date: 3–10 January 2010

Venue: Hanmer Springs, New Zealand

Web: http://www.math.auckland.ac.nz/wiki/2010_NZMRI_Summer_Workshop

AMSI ICE–EM 2010 Summer School

Date: 11 January – 5 February 2010

Venue: La Trobe University

Web: <http://www.latrobe.edu.au/mathstats/summerschool/>

Contact: Grant Cairns, Director (G.Cairns@latrobe.edu.au)

Prospective honours and postgraduate students may register at the website. Out-of-town students may apply for financial assistance: accommodation (with breakfast and dinner) and a travel allowance.

This year, there will be seven courses in mathematics and statistics:

- Maria Athanassenas (Monash): Soap films: Minimal surfaces and partial differential equations;
- Conrad Burden (ANU): Applications of mathematics and statistics to bioinformatics;
- Grant Cairns (La Trobe): Geometry and group actions;
- Aurore Delaigle (U Melbourne): Nonparametric curve estimation;
- Markus Hegland (ANU): Introduction to the numerical approximation of partial differential equations;
- Marcel Jackson (La Trobe): Computational complexity in theory and practice;
- Marty Ross: Measure theory.

There will be a number of other activities, some mathematical and some social. This is an excellent opportunity for students to broaden their mathematical base, and to make useful connections with mathematics and statistics students and staff

from around Australia. Past experience has shown that students find the summer school to be a very enjoyable and enriching experience.

Please circulate the above information to prospective honours and postgraduate students.

**Call for Contributions:
Educational Interfaces between Mathematics and Industry**

Date: 19–23 April 2010

Venue: Lisbon, Portugal

Web: <http://www.cim.pt/eimi/>

Contact: Gail FitzSimons (gail.fitzsimons@education.monash.edu.au)

International Congress of Mathematicians: ICM2010

Date: 19–27 August 2010

Venue: Hyderabad International Convention Centre, Hyderabad, India

Web: www.icm2010.org.in

The invited speakers at the ICM 2010 have now been announced:
see <http://www.icm2010.org.in/speakers.php>.

There are two invited Sectional Speakers from Australia: Professors Norm Dancer and Brendan McKay.

There are posters for ICM2010 at <http://www.icm2010.org.in/posters.php>. Feel free to print them out and display them at appropriate locations.

Vale

Tsoy-Wo Ma

Dr Tsoy-Wo Ma has passed away after a long illness.

Visiting mathematicians

Visitors are listed in alphabetical order and details of each visitor are presented in the following format: name of visitor; home institution; dates of visit; principal field of interest; principal host institution; contact for enquiries.

Dr Andrew Byrne; University College Cork, Ireland; 21 September 2009 to 30 June 2010; cryptography; RMT; Kristine Lally.

Dr Florica Cirstea; University of Sydney; 14 July 2008 to 14 July 2011; applied and nonlinear analysis; ANU; Neil Trudinger

Dr Robert Clark; University of Wollongong; 1 July 2008 to 1 July 2011; statistical science; ANU; Alan Welsh

- Professor Alexandru Dimca; Universite de Nice Sophia Dieudonne; 1 to 28 March 2010; theory of local Systems on hyper plane complements and configuration spaces; USN; G.I. Lehrer
- Mr Yang Feng; Princeton University; 16 August to 15 November 2009; –; UMB; Prof Peter Hall
- Prof Michael Finkelberg; Independent University of Moscow; 1 to 30 November 2009; algebra; USN; A.I. Molev
- Richard Garner; University of Cambridge; 5 October to 25 December 2009; –; UMQ; A/Prof Dominic Verity
- Prof Zongming Guo; Henan Normal University, China; October to December 2009; nonlinear PDE; UNE; Prof Yihong Du
- Prof Sreenivasa Rao Jammalamadaka; University of California at Santa Barbara; 20 July to 15 November 2009; –; CUT; K.L. Teo
- Wei Jin (student); Central South University, China; 20 September 2008 to September 2010; –; UWA; Cheryl Praeger
- Prof Lishan Liu; QuFu Normal University, China; 16 July to 31 December 2009; –; CUT; Prof Yong Hong Wu
- Kek Sie Long; University Tun Hussein Onn, Malaysia; May 2009 to November 2009; –; CUT; –
- Prof Christine Mueller; University of Kassel, Germany; 15 October to 24 December 2009; –; UMB; Prof Richard Huggins
- Prof Daniel Nakano; University of Georgia; 1 February 2010 to 30 June 2010; classical Lie superalgebras, cohomological transfer theorems; USN; G.I. Lehrer
- Prof Makato Ozawa; Komazawa University, Japan; 1 April 2009 to 31 March 2011; –; UMB; Prof Hyam Rubinstein
- Mr Michael Payne; –; 21 September 2009 to 1 March 2010; –; UMB; Dr David Wood
- A/Prof Andrei Ratiu; Istanbul Bilgi University; 21 September 2009 to 31 August 2010; –; UMB; A/Prof Craig Hodgson
- Emily Riehl; University of Chicago; 12 November 2009 to 26 March 2010; –; MQU; A/Prof Dominic Verity
- Prof Guyan Robertson; University Newcastle, UK; 1 September 2009 to 25 January 2010; –; UAD; –
- Mr Ege Rubak (student); Aalborg University, Denmark; April to November 2009; –; UWA; Adrian Baddeley
- Dr Leonid Rybnikov; IAS, Princeton University; 1 to 30 November 2009; algebra; USN; A.I. Molev
- Rahbar Virk; University of Wisconsin-Madison, USA; 15 September to 31 December 2009; –; UMB; Prof Arun Ram
- Dr Lyudmyla Velychko; Ukraine; December 2009 to March 2010; –; MQU; Prof Paul Smith and Dr Elena Vinogradova
- Dr Zhitao Zhang; Chinese Academy of Science, Beijing; 15 September to 15 November 2009; nonlinear analysis; USN; E.N. Dancer
- Prof Huansong Zhou; Wuhan Institute of Physics and Mathematics, Chinese Academy of Sciences; October to November 2009; nonlinear PDE; UNE; Prof Yihong Du
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