



News

General News

Academy awards

The closing date for nominations for the following Academy awards is 22 August. For more information about any of these awards, including confirmation of the extended deadline, contact Dominic Burton (Dominic.Burton@science.org.au).

Thomas Ranken Lyle Medal. The purpose of the medal is to recognise outstanding achievement by a scientist in Australia for research in mathematics or physics. Research carried out in countries other than Australia may be taken into consideration if the researcher has spent three of the last five years in Australia. Work carried out during the whole of the candidate's career may be taken into consideration but special weight will be given to recent work. See www.science.org.au/awards/awards/lyle.html for details.

Moran Medal. The Moran Medal recognises outstanding research by scientists no more than 40 years of age in the calendar year of nomination, except in the case of significant interruptions to a research career, in one or more of the fields of applied probability, biometrics, mathematical genetics, psychometrics and statistics. See www.science.org.au/awards/awards/moran.html for details.

Hannan Medal. The 2013 Hannan Medal is for research in statistical science. The award is made for research carried out mainly in Australia. Work carried out through a candidate's entire career is taken into consideration but special weight is given to recent research. See www.science.org.au/awards/awards/hannan.html for details.

AK Head Mathematical Scientists Travelling Scholarship. The purpose of the Scholarship is to support mathematical science students/young researchers to further their studies and develop new international networks and collaborations whilst visiting facilities that they would not normally be able to access in Australia. The scholarship will cover a travel period of between six weeks and three months with no more than \$20 000 being made available per scholarship. The Scholarship is to be awarded to one or more early career mathematical science students/research scientist to travel overseas for a period of time (six weeks or longer) to further their studies and develop new international networks and collaborations to a maximum of \$20 000 per year.

The Scholarship is to be used to fund accommodation costs, international travel (economy air fares only), local transport costs, conference fees and incidentals required while travelling.

For these purposes an early career student/research scientist is taken as being no more than 40 years of age in the calendar year of application.

See www.science.org.au/awards/awards/akhead.html for details.

Call for Papers: iJMEST Special Issue

The QS in Science project has initiated a Special Issue of International Journal of Mathematics Education in Science and Technology (iJMEST ijmest.lboro.ac.uk), a highly rated journal with a sustained record in the field. The Special Issue — Quantitative skills in science: integrating mathematics and statistics in undergraduate science curricula — is due for publication in September 2013. Empirical research, case studies or theoretical essays are welcomed. We hope contributors will come from a range of disciplines. Additional details are outlined at www.qsinscience.com.au.

IMU Awards and Prizes

Nalini Joshi, Chair of the National Committee for the Mathematical Sciences, has been invited by Ingrid Daubechies, President of the IMU, to submit nominations for the IMU awards listed below, to be presented at ICM 2014 in Seoul. Nalini invites nominations to be submitted to her (Email: nalini.joshi@sydney.edu.au) in time for submission to the appropriate committee chair by 31 December 2012. More details about each of these awards and the Noether lecture, as well as lists of past laureates, can be found on the IMU website, at www.mathunion.org/general/prizes.

Fields Medals. The Fields Medals are awarded to recognise outstanding mathematical achievement for existing work and for the promise of future achievement.

Rolf Nevanlinna Prize. The Nevanlinna Prize is awarded for outstanding contributions in mathematical aspects of information sciences.

Carl Friedrich Gauss Prize. The Gauss Prize is awarded to honour a scientist whose mathematical research has had an impact outside mathematics — either in technology, in business, or simply in people's everyday lives.

Chern Medal Award. The Chern Medal is awarded to an individual whose accomplishments warrant the highest level of recognition for outstanding achievements in the field of mathematics.

Leelavati Prize The Leelavati Prize, sponsored by Infosys, recognises outstanding contributions for increasing public awareness of mathematics as an intellectual discipline and the crucial role it plays in diverse human endeavors.

The IMU also requests nominations for the ICM 2014 Emmy Noether Lecture. The ICM Emmy Noether lecture is a special lecture at an ICM which honours women who have made fundamental and sustained contributions to the mathematical sciences.

The guidelines for nominations are specified at the web page: www.mathunion.org/general/prizes/nomination-guidelines. IMU prefers electronic submission of nominations, if possible in pdf form.

Professional development unit (ALTC)

This is an accessible, practical and evidence-based unit that is designed specifically for tertiary mathematics lecturers and tutors. These materials were tested and refined through multiple iterations.

The 12-week unit includes assessment and an online learning community, and is offered online at www.austms.org.au/Professional+Development+Unit.

Please contact Jennifer Lai (jennifer.lai@mq.edu.au) if you are interested in completing the unit.

Professional development workshop (ALTC)

The Professional development workshop will be held from 27–28 September 2012 in conjunction with the 56th Annual Meeting of the Australian Mathematical Society at the University of Ballarat, Victoria. The workshop is funded by the Australian Learning and Teaching Council (ALTC) and is free for AustMS members. Participants and facilitators will work in small groups in interactive sessions.

Registration

- If you wish to register only for ALTC Workshop, please go to https://wt.maths.latrobe.edu.au/register/Conferences/AustMS2012/special/ALTC.php?conf_id=16.
- If you wish to attend both the Professional Development Workshop and the AustMS Annual Meeting, please register at www.ballarat.edu.au/schools/school-of-science-and-technology/australian-mathematical-society-56th-annual-meeting/registration/online-registration.

For more information, visit www.austms.org.au/ALTC+Workshop+2012.

For enquiries, contact Jennifer Lai (jennifer.lai@mq.edu.au).

University of Newcastle

Jonathan Borwein's book *Convex Functions: Constructions, Characterizations and Counterexamples* was selected as one of the Outstanding Academic Titles for 2011 by *Choice*, the American Library Association academic library book review journal. See www.ala.org/acrl/choice/currentissue#oat.

University of New South Wales

- The School was delighted to host a delegation of 12 from the Hong Kong Polytechnic University on Friday 1 June. The group, comprised students and two academic staff, met with School members and attended program seminars. They also enjoyed lunch and the opportunity to socialise with our academic staff.

- The Chinese Academy of Mathematics and Systems Science recently translated an article by the School's Dr Mike Hirschhorn into Chinese for *MATHEMATICS*. Dr Hirschhorn's 2011 article, "Ramanujan's 'Most Beautiful Identity'", was originally published in the *American Mathematical Monthly*.
 - The UNSW School Mathematics Competition has been run each year since 1962. It is open to participation by secondary school students in NSW and the ACT, and is conducted in two divisions: Junior (up to and including Year 10) and Senior (Years 11 and 12). The 51st UNSW School Mathematics Competition will be held on Wednesday 20 June 2012. See www.maths.unsw.edu.au/highschool/school-mathematics-competition.
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Completed PhDs

Australian National University

- Dr Yuan Fang, *The combination approximation method*, supervisor: Markus Hegland.

Macquarie University

- Dr Kaiser Lock, *A study on the interaction of the Electromagnetic field with slotted cylindrical structures employing the method of regularisation*, supervisors: Paul Smith and Elena Vynogradova.

Swinburne University of Technology

- Dr Md Samsuzzoha, *A study on numerical solutions of epidemic models*, supervisors: Manmohan Singh and David Lucy.

University of Adelaide

- Dr Leo Bin Shen, *Financial risk measures: the theory and applications of backward stochastic difference differential equations with respect to the single jump process*; supervisors: Robert Elliott and Alexei Filinkov.
- Dr Tyson Ritter, *Acyclic embeddings of open Riemann surfaces into elliptic manifolds*; supervisors: Finnur Larusson and Nicholas Buchdahl.

University of Melbourne

- Dr Olivia Smith, *Network problems in airline scheduling*, supervisors: Heng-Soon Gan, Natasha Boland and Mark Wallace.
- Dr Maurice Chiodo, *Conditional decision problems in group theory*, supervisors: Lawrence Reeves and Greg Hjorth.

University of New England

- Dr Linfeng Mei, *Reaction-diffusion equations arising from phytoplankton dynamics*, supervisor: Yihong Du.

University of Sydney

- Dr James Edwards, *Decision making by collective intelligences*, supervisor: Mary Myerscough.

University of Western Australia

- Dr Shalela Mohd Mahali, *Numerical methods for the estimation of effective diffusion coefficients and other parameters of controlled drug delivery systems*, supervisor: Song Wang.

Awards and other achievements**Monash University**

- Congratulations to Dr Kais Hamza and Professor Fima Klebaner who are named applicants on a successful EU FP7 project called RARE which deals with the management of extreme risks and the prediction of rare events. The project is funded for four years at about 784,400 Euros, and will fund visitors, postdocs and young researchers who will spend up to six months with us (all expenses paid by the project).

University of Adelaide

- The Society for Industrial and Applied Mathematics (SIAM) has awarded one of its three 2012 Outstanding Paper Prizes to Matt Finn and Jean-Luc Thiffeault for their paper ‘Topological Optimization of Rod-Stirring Devices’.

University of Melbourne

- Dr Deb King is one of the Top 10 lecturers for The University of Melbourne in this year’s ‘Lecturer of the Year Award’ run by UniJobs.

University of New England

- Mr Linfeng Mei, 2011 Chinese Government Award for Outstanding Self-financed Students Abroad (by China Scholarship Council).

University of Queensland

- PhD student Jessica Chan was awarded the University Medal and a UQ Advantage PhD Top-Up Scholarship.

- PhD student Robert Cope won the 2011 Frederic Fairfield Memorial Award (Society for Marine Mammalogy). This award is made to a student who presents at the Biennial Conference on the Biology of Marine Mammals for conducting the most innovative research in the field of marine mammal biology. It recognises and supports scientists who have developed or applied pioneering techniques or research tools to study marine mammals.

University of Wollongong

- Third-year Bachelor of Mathematics Advanced student Alex Gerhardt-Bourke has been invited to participate in the MITACS Undergraduate Summer Research Program at the Fields Institute in Toronto.
- University Education Committee Educational Strategies Development Fund grants (three of the six grants awarded university-wide went to the School of Mathematics and Applied Statistics):
 - Dr Xiaoping Lu, Dr Pam Davy, Associate Professor Anne Porter: Motivating engineering students to develop mathematics and statistics skills and concepts
 - Dr Marianito Rodrigo, Associate Professor Annette Worthy, Associate Professor Anne Porter: Embedded Mathematics Learning Support at 200 Level
 - Dr Carole Birrell, Dr Caz Sandison (School of Mathematics and Applied Statistics), Dr Tricia Forrester (Faculty of Education): Development of multiple choice resources for pre-service primary teachers to deepen conceptual understanding of mathematics content knowledge and reduce anxiety.

Appointments, departures and promotions

Australian National University

- Dr Adam Rennie has left to take up a position at the University of Wollongong.
- Anthony and Joan Licata have joined the Mathematical Sciences Institute.

Macquarie University

- In July, Dr Ignacio Lopez Franco has taken up an appointment as Research Associate with the Centre of Australian Category Theory. He has joined us from Gonville and Caius College, Cambridge, where he was a Research Fellow.
- Associate Professor Dominic Verity was promoted to Professor in the Computing Department. He is a senior member of the Centre of Australian Category Theory.

Monash University

- Ms Laura O'Brien commenced as Research Fellow on 1 June 2012, supervised by Professor Michael Reeder. Her research interests are in drivers of spatial and temporal climate variability in extra-tropical Australia.
- Dr Ben Ayliffe commenced as Research Fellow on 16 April 2012, supervised by Dr Daniel Price. His research interests are in using smoothed particle hydrodynamics, which he studies, in isolation and combination, the physical properties that affect the growth rate of giant planets. These include the initial protoplanetary disc conditions (that is, temperature and density structure), the effect of changes in the opacity, the impact of self-gravity, and the implications of planet migration.

University of Adelaide

- Professor Jim Denier has left the university. He is now the Professor of Continuum Mechanics in the Department of Engineering Science at The University of Auckland.
- Dr Matthew Finn has left the university.

University of Melbourne

- Guangjun XU has been appointed as Research Fellow.
- Dr Deb King and Dr Craig Westerland have been promoted to Senior Lecturer, effective 1 September 2012.

University of Newcastle

- Dr Michael Coons will be starting as a lecturer at the university.
- Dr Faramroze Engineer has left the university.
- Associate Professor Brailey Sims has partially retired.
- Dr Thomas Kalinowski has left the university.

University of New South Wales

- We are thrilled to announce that Associate Professor Bruce Henry has been appointed as our new Head of School. We wish A/Prof Henry all the best for his new role!
- We very warmly welcome Professor Trevor McDougall to the Department of Applied Mathematics.
- We farewell Professor Tony Dooley and thank him for his wonderful contribution to the School. Professor Dooley has been with the School for over 30 years, and has been our very highly regarded Head of School for the past four years. He has taken up a professorial position at the University of Bath. Professor Dooley will be greatly missed by the School, and we wish him all the very best for his new life in the UK.

University of Queensland

- Yoni Nazarathy joined Mathematics at UQ as Lecturer on 15 April 2012. Yoni's interests include applied probability, queueing networks, inference and control.

University of Sydney

- Dr Chris Cosgrove and Dr Adrian Nelson will retire in July 2012.
- Dr Sandra Britton and Dr David Galloway will retire at the end of 2012.

University Technology, Sydney

- Dr Tapan Rai joined the School on 18 June 2012 as Senior Lecturer (Statistical Consulting).

University of Western Australia

- Dr Irene Pivotto commenced as a Research Associate working with Professor Gordon Royle.

University of Wollongong

- Aidan Sims has been promoted to Professor.

New Books**University of South Australia**

- María Cristina Pereyra (The University of New Mexico) and Lesley A. Ward (University of South Australia) (2012). *Harmonic Analysis: From Fourier to Wavelets*. American Mathematical Society, Providence, RI.

University of Wollongong

- Raymond L. Chambers (University of Wollongong), David G. Steel (University of Wollongong), Suojin Wang (Texas A&M University), and Alan Welsh (The Australian National University) (2012). *Maximum Likelihood Estimation for Sample Surveys* (Monogr. Statist. Appl. Probab. **125**). Chapman and Hall/CRC, Boca Raton, FL.
 - Noel Cressie (University of Wollongong and Ohio State University) and Christopher K. Wikle (University of Missouri). (2011). *Statistics for Spatio-Temporal Data*. John Wiley, Hoboken, NJ.
 - Raymond L. Chambers (University of Wollongong) and Robert G. Clark (University of Wollongong). (2012). *An Introduction to Model-Based Survey Sampling with Applications*. Oxford University Press.
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Conferences and Courses

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

SON2012: Set Oriented Numerics in Dynamical Systems

Date: 3–6 September 2012

Venue: UNSW, Sydney

Web: <http://conferences.science.unsw.edu.au/SON2012/index.php>

Registration is now open for SON2012. For further details, visit the workshop website. Registration is free; participants should email son2012@unsw.edu.au to register by 3 August 2012.

CTAC2012: 16th Biennial Computational Techniques and Applications Conference

Date: 23–26 September 2012

Venue: Queensland University of Technology, Brisbane

Web: www.ctac2012.qut.edu.au

Australian Mathematical Society 56th Annual Meeting

Date: 24–27 September 2012

Venue: University of Ballarat

Web: www.ballarat.edu.au/austms2012

The earlybird registration deadline has been extended to July 16. If you wish to register at the discount rate of \$375, please visit the conference registration page which may be accessed by visiting either www.ballarat.edu.au/austms2012 or www.ballarat.edu.au/schools/school-of-science-and-technology/australian-mathematical-society-56th-annual-meeting.

The Fifth International Workshop on Guided Self-Organisation (GSO-2012)

Date: 26–28 September 2012

Venue: University of Sydney

Web: <http://prokopenko.net/gso5.html>

2012 Conference and Workshop on Modelling and Computation in Musculoskeletal Engineering

Date: 12–15 November 2012

Venue: Institute of Health and Biomedical Innovation, QUT

Web: 2012mcme.wordpress.com

Conference convenor: Email: mcme@qut.edu.au

Ph: +61 7 3138 5238

The Mathematical Sciences School at the Queensland University of Technology (QUT) would like to announce the inaugural Institute of Health and Biomedical

Innovation (IHBI) conference and workshop on Modelling and Computation in Musculoskeletal Engineering.

Bringing together medical, mathematical, computational and engineering researchers in a mixed format two-day conference plus two-day workshop, this event will showcase significant examples of the impact of modelling and computation in the biomedical engineering while also providing an opportunity to take part in the collaborative solution of real world problems in musculoskeletal engineering.

Facilities for registration and abstract submission together with further details about the themes and program for the conference are available on the conference website.

Plenary speakers include Prof. Lutz Claes (University of Ulm, Germany), Prof. Georg Duda (Charité–Universitätsmedizin Berlin, Germany), Prof. Peter Fratzl (Max Planck Institute for Colloids and Interfaces, Berlin, Germany), Dr Alf Gerisch (Technische Universität Darmstadt, Germany), Prof. Dietmar Hutmacher (IHBI, Australia) and Dr Tobias Meckel (Technische Universität Darmstadt, Germany).

Please contact the conference convener (see heading) for more information.

Eclipse on the Coral Sea: Cycle 24 Ascending

Date: 12–16 November 2012

Venue: Palm Cove, Queensland

Web: <http://moca.monash.edu/eclipse>

Monash and James Cook University are working together to organise the conference ‘Eclipse on the Coral Sea: Cycle 24 Ascending’ to be held 12–18 November 2012 in Palm Cove, Queensland.

ANZAMP inaugural annual meeting

Date: 2–5 December 2012

Venue: Lorne, Victoria

Web: www.anzamp.austms.org.au/meetings/2012

Contact: anzamp.meeting@gmail.com

The 36th Australasian Conference on Combinatorial Mathematics and Combinatorial Computing (36ACCMCC)

Date: 10–14 December 2012

Venue: University of New South Wales, Sydney

Web: <http://conferences.science.unsw.edu.au/36accmcc>

Registration for this conference is now open, as is abstract submission.

MODSIM2013: International Congress on Modelling and Simulation

Date: 1–6 December 2013

Venue: Adelaide Convention Centre, South Australia

Web: <http://mssanz.org.au/modsim2013>

Early notice of this congress is being given to enable interested members to lock the dates in their diaries.

The theme for this MODSIM2013 event will be ‘Adapting to Change: the Multiple Roles of Modelling’.

Convenors: Professor J. Boland (University of South Australia) and Dr J. Piantadosi (University of South Australia).

Program chairs: Professor R.S. Anderssen (CSIRO Mathematics, Informatics and Statistics) and Dr J. Piantadosi (University of South Australia).

Further details of the conference will be available later in the year.

Vale

Professor C.E.M. Pearce

With deep regret we inform readers of the death on 8 June of Professor Charles Pearce, Elder Professor of Mathematics at The University of Adelaide.

Charles Pearce made many contributions to the Society, including as Editor of the *ANZIAM Journal* from 1993 to 2009 and Chair of the Editors’ Committee from 1998 to 2009. He was awarded Honorary Membership in 2009.

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.

Pierre-Olivier Amblard; CNRS, France; 1 August 2010 to 28 February 2013; –; UMB; Owen Jones

Prof Henning Haahr Andersen; University of Aarhus; 27 September to 20 October 2012; quantum groups; USN; Gus Lehrer

A. Bass Bagayogo; Université de Sait-Boniface, Canada; 6 June to 30 August 2012; –; UNC; –

Dr Tarje Bagheer; University of Copenhagen, Denmark; 14 February 2012 to 13 February 2013; –; UMB; Craig Westerland

Prof Michel Brion; Institut Fourier; 28 September to 6 October 2012; pure; USN; Gus Lehrer

Mr Nicolas Castillo; –; 21 May to 10 August 2012; stats; USN; Uri Keich

Dr John W. Elliot; University of Hull; early to mid-August 2012; –; UWA; –

Alireza Faraz; Université de Liège, Belgium; 1 July to 31 December 2012; multivariate control charts; UNS; David Warton

Dr Tanya Garcia; Texas A&M; 4 November to 2 December 2012; stats; USN; Samuel Mueller

- Prof Brad Gibson; University of Central Lancashire, UK; 20 December 2011 to 4 September 2012; chemical evolution of the galaxy; MNU; John Lattanzio
- Prof Liang Han-Ying; Tongji University; 10 December to 22 February 2013; stats; USN; Qiying Wang
- Emanuel Huhnen-Venedey; Technical University Berlin; September 2011 to September 2012; (discrete) differential geometry; UNS; Wolfgang Schief
- Prof Phan Quoc Khanh; Vietnam National University; 13 July to 12 August 2012; variational analysis; UBR; Alex Kruger
- Prof Daniel Knopf; University of Texas; 10–14 December 2012; pure; Zhou Zhang
- Vittorio Lattore; University of Rome, Italy; 9 April to 7 September 2012; –; UBR; David Gao
- Prof Weidong Liu; Shanghai Jiao Tong University; 15–30 August 2012; non-linear cointegration models; USN; Qiying Wang
- Dr Xiaojun Lu; South-East University, China; 10 July to 10 September 2012; analytical solutions to nonlinear PDEs; UBR; David Gao
- Prof Klaus Lux; University of Arizona; 1 November to 15 December 2012; –; UWA; Alice Niemeyer
- Prof Hiroyuki Kashima; Aoyama Gakuin University, Japan; 1 April 2012 to 31 March 2013; –; UMB; Peter Hall
- Prof Prabhu Manyem; Shanghai University; 29 July to 19 August 2012; optimization complexity; UBR; Julien Ugon
- Dr Hiroshi Matsuzawa; Numazu National College of Technology, Japan; April 2012 to March 2013; nonlinear PDE; UNE; Yihong Du
- Dr Mihai Mihailescu; University of Craiova; 1 August to 30 November 2012; partial differential equations; USN; Florica Cirstea
- Dr Stefan Papadima; Institute of Maths, Romanian Academy; 1 December 2012 to 31 January 2013; singularity theory; USN; Laurentiu Paunescu
- Xiao-Long Peng; Shanghai University; July 2012 to June 2013; –; UWA; –
- Edward Saff; Vanderbilt University; 5 July to 5 August 2012; approximation theory, complex analysis; UNS; Ian Sloan
- Katja Sagershnik; University of Vienna; 1 May 2011 to 31 December 2012; –; ANU; Michael Eastwood
- Ms Maryam Siddiq; University Lahore; November 2012 to June 2013; –; UWA; –
- Prof Alexandru Suci; Northeastern University; 1 November to 15 December 2012; pure; USN; Laurentiu Paunescu
- Xiaoran Sun; Harbin Institute of Technology; October 2012 to September 2013; –; UWA; –
- Dr Leo Tzou; University of Helsinki; 30 July to 24 November 2012; nonlinear analysis; USN; Neville Weber
- Tony Weston; Canisius College; 1 June 2012 to 15 August 2013; functional analysis; UNS; Ian Doust
- Mr Chunguang Xia; University of Science and Technology, China; 1 November 2010 to 31 October 2012; algebra and representation theory; USN; Ruibin Zhang
- Ruoxi Xiang; Hong Kong Polytechnic University; 1 July 2012 to 1 March 2013; –; UWA; –

Prof Xi'an Xu; Xuzhou Normal University, China; 20 November 2011 to 20 November 2012; nonlinear PDE; UNE; Yihong Du

Dr Jinghao Xue; University College London, UK; 9 June to 15 December 2012; -; UMB; Peter Hall

Dr Ahmet Yucesan; Suleyman Demirel University, Turkey; 15 June to 15 September 2012; -; UWA; -

Prof Mei Zheng; Chongqing College of Electronic Engineering, China; February 2012 to February 2013; optimization theory and algorithms; UBR; Zhiyou Wu

Qiji Jim Zhu; Western Michigan University; 18-31 August 2012; -; UNC; -
