



News

General News

Australian and New Zealand Standard Research Classification codes

The Australian Bureau of Statistics has released new codes to replace the existing (1998) RFCD and SEO codes. These will undoubtedly play a role in whatever the government decides will replace the RQF, even if it is only for the purpose of reporting outcome data. They may determine the groupings within which assessment is made, as was originally intended for the RQF. They will feature in grant proposals from 2009. The new codes differ from all previous ones in being, simultaneously, Australian and New Zealand Standard Research Classification codes.

The RFCD codes, although not the SEO codes, were prepared with the assistance of a committee put together by the Society, and representing theoretical mathematics, applied mathematics and probability & statistics. You may be interested to view them. A pdf file of the new RFCD codes can be downloaded at: [http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/2A3A6DB3F4180D03CA25741A000E25F3/\\$File/12970_2008.pdf](http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/2A3A6DB3F4180D03CA25741A000E25F3/$File/12970_2008.pdf).

More information about the new codes is available at:
<http://www.abs.gov.au/ausstats/abs@.nsf/mf/1297.0?OpenDocument>.

Macquarie University

On tour with the Bach Choir (<http://www.thebachchoir.org.uk/concerts.php>), Professor Peter Johnstone of St John's College, Cambridge, visited Sydney from 22 to 28 March 2008. The Choir performed at Sydney Conservatorium of Music on 27 March. Peter squeezed in a talk to the Category Seminar at Macquarie University on Thursday 28 March before he joined the Choir for a performance in the Sydney Opera House that evening. The Choir then moved to Melbourne for performances until 5 April. Peter is author of books on topos theory and Stone spaces; he is working on the third volume of *Sketches of an Elephant: A Topos Theory Compendium* published by Oxford University Press.

Completed PhDs

Deakin University

- Dr Lei Pan, *A performance testing framework for digital forensic tools*, supervisor: Professor Lynn Batten.

Monash University

- Dr Andrew Tupper, *The effect of environmental conditions on the nature and detection of volcanic clouds*, supervisor: Professor Michael Reeder.
- Dr Stewart Allen, *A potential vorticity perspective on Southern Hemisphere blocking dynamics*, supervisor: Professor Michael Reeder.
- Dr John Mansour, *SPH and L-SPH: applications and analysis*, supervisor: Professor Joseph Monaghan.

University of Melbourne

- Dr Jennifer Slater, *Growing network models with an application to neurogenesis*, supervisors: Professor Kerry Landman and Associate Professor Barry Hughes.
- Dr Dimetre Triadis, *Indentation models for colloid science and nanotechnology*, supervisor: Associate Professor Barry Hughes.

University of Queensland

- Dr Daniel Horsley, *Some results on Steiner triple systems and cycle decompositions*, supervisor: Dr Darryn Bryant.
- Dr David Sirl, *On the analysis of absorbing Markov processes*, supervisor: Professor Phil Pollett.

University of South Australia

- Dr Kuva Jacobs, *An investigation of interactive online modules for the learning of mathematics*, supervisor: Professor David Panton, associate supervisors: Associate Professor Dianne Bills, Dr Stephen Lucas.
- Dr Jane Thredgold, *Mathematical modelling of the deformation of spectacle lenses*, supervisors: Professor Phil Howlett, Dr Stephen Lucas.
- Dr Luke Finlay, *Linear programming approach to long run average optimal control: duality and numerical analysis*, supervisor: Professor Vladimir Gaitsgory.

University of Sydney

- Dr Vivek Jayasawal, *General Markov models for nucleotide sequence evolution*, supervisor: Professor John Robinson.
- Dr Ben Wilson, *Representations of infinite-dimensional Lie algebras*, supervisor: Associate Professor Alex Molev.

Awards and other achievements

Many congratulations to Nalini Joshi (University of Sydney), S. Ole Warnaar (University of Melbourne), and Matthew P. Wand (University of Wollongong) who have been elected Fellows of the Australian Academy of Science.

Nalini Joshi is the Australian Mathematical Society's Incoming President, and Ole Warnaar is currently Vice President. Nalini's award is 'for her work on the mathematical structure of nonlinear integrable systems: complex analysis'; Ole's

award is ‘for his work on solvable lattice models, special functions, q-series and algebraic combinatorics’; and Matthew’s award is ‘for his work on nonparametric estimation’.

For the full list, see <http://www.science.org.au/media/newfel2008.htm>

University of Melbourne

- Ellie Button was joint winner of the T.M. Cherry prize at the last ANZIAM conference for her talk on ‘Dynamics of water bells formed on the underside of a horizontal plate’.

University of Queensland

- Geoff Goodhill has been awarded a grant from The Human Frontier Science Program, together with colleagues from Spain the UK and Japan. The grant is entitled ‘Self-Organized Wiring of the Cerebral Cortex through Thalamo-cortical Growth Cones: An Integrated Approach’ and is for three years.
- Dan Pagendam was awarded the International Biometrics Society (IBS) Australasian Regional Travel Award to attend the International Biometric Conference (Dublin, Ireland, 13–18 July 2008).

Dan also received a Student Commendation for his paper titled ‘Optimal sampling and problematic likelihood functions in a simple population model’ presented at the 17th Biennial Congress on Modelling and Simulation (MOD-SIM07), University of Canterbury, Christchurch, New Zealand, 10–13 December 2007.

University of South Australia

- Michael Haythorpe was joint winner of the T.M. Cherry prize at the last ANZIAM conference for his talk on ‘Interior-point algorithms for solving the Hamiltonian cycle problem’.
- Giang Nguyen (PhD student) was a joint winner of the Australian Postgraduate Workshop for Stochastic Processes and Modelling student talk award. Her talk was titled ‘Markov decision processes and the longest cycles of graphs’.

University of Western Australia

- Professor Baddeley has been named the Georges Matheron Lecturer 2008 by the International Association for Mathematical Geology.

University of Wollongong

- Professor Jim Hill has been awarded the 2008 ANZIAM medal for outstanding achievements in Applied Mathematics and service to ANZIAM.

Appointments, departures and promotions

La Trobe University, Bundoora

- Marcel Jackson has been appointed Associate Editor of *Algebra Universalis*.

- Jane Pitkethly has been appointed Moderator of the soon-to-commence *Algebra Universalis* blog.

Curtin University of Technology

- The following have joined the Department of Mathematics and Statistics at Curtin: A/Prof Adrian Wong; Dr Guanglu Zhou; and Dr Zudi Lu.

Monash University

- Dr Nicholas Cavenagh commenced as Research Fellow on 11 February 2008.

University of South Australia

- Associate Professor John van der Hoek is a new appointment. He will be working in the area of financial mathematics.
- Professor David Panton will be retiring in April 2008. Professor Panton was a previous Head of School and was recently presented with a 40-year service award by the University Vice-Chancellor.
- Dr John Boland has been promoted to Associate Professor.

University of Sydney

- Dr Rafael Kulik has resigned to take up a position at the University of Ottawa.

New Books

University of Queensland

- McLachlan, G.J. and Krishnan, T. (2008). *The EM Algorithm and Extensions*, 2nd edn. Wiley, Hoboken, NJ.

Conferences and Courses

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

Mathematics Applied to Liquid Crystal Technologies

Date: 8–10 May 2008

Venue: University of Wollongong

Web:

<http://www.uow.edu.au/informatics/maths/MALCT-2008Workshop/index.htm>

The School of Mathematics and Applied Statistics at the University of Wollongong is holding a workshop on cutting edge technology: ‘Mathematics Applied to Liquid Crystal Technologies’. This workshop is sponsored by AMSI.

AMSI/MASCOS: The mathematics of water supply and pricing

Date: 14–16 July 2008

Venue: Holiday Inn, 22 View Street, Surfers Paradise

Web: <http://www.amsi.org.au/water.php>

Contact: Parvin Ahadi (AMSI): wsp08@amsi.org.au

This three-day event will consist of a short course, invited lectures and contributed talks on the mathematics of water supply and pricing. The topics likely to be addressed are: water trading, pricing models, demand forecasting, risk management, network modelling and management, monitoring water quality, network optimisation and water economics. Goals of the event are to present recent developments on mathematics and statistics applied to water management with emphasis on water markets, to facilitate knowledge transfer and industry linkages, and to promote industry development.

Invited Speakers include: Mohammed Dore, Brock University Canada; Quentin Grafton, The Australian National University; Graeme Dandy, The University of Adelaide; David Fox, The University of Melbourne; and Shahbaz Khan, UNESCO, Paris.

Short talks are invited. Talks are to be 15 minutes with five minutes for discussion. Abstracts for contributed talks may be submitted by email wsp08@amsi.org.au. Abstracts should be in Word, text or LaTeX format and no more than 300 words. The Organising Committee will make the final choice of presentations.

Early-bird registration expires 15 June 2008.

9th World meeting of the International Society for Bayesian Analysis

Date: 21–25 July 2008

Venue: Hamilton Island

Web: <http://www.isba2008.sci.qut.edu.au>

The ISBA world meetings are held every two years, with every second one held jointly with the Valencia meetings. These conferences have become one of the premier events in Bayesian statistics. ISBA08 will broadly follow the tradition of these meetings, combining an excellent scientific program that embraces all things Bayesian.

This year's conference program includes six keynote speakers: Professor Jeff Rosenthal (University of Toronto); Professor Jim Berger (Duke University); Professor Sylvia Frühwirth-Schnatter (Johannes Kepler University); Professor Xiao-Li Meng (Harvard University); Professor Tony O'Hagan (Sheffield University); and Professor Gareth Roberts (University of Warwick). The program also includes over 80 invited and contributed presentations covering topics, such as Bayesian Modelling, Bayesian Data Analysis, Bayesian Computation and Applications. With over 250 delegates currently registered, ISBA08 will be the premier statistics conference in Australia this year.

9th International Pure Mathematical Conference 2008

Date: 24–26 August 2008

Venue: Islamabad, Pakistan

Web: <http://www.pakms.org.pk>

The 9th International Pure Mathematical Conference 2008 (9th IPMC 2008) is the 9th international conference in the series of Pure Mathematics Conferences that take place in Islamabad every year in August. It is a thematic conference on algebra, geometry and analysis held under the auspices of the Pakistan Mathematical Society. The entire conference is organised under one roof at a four-star hotel in the modern, peaceful and beautiful federal capital of Pakistan located at the footsteps of the scenic Margalla Hills. There will be free housing for foreign participants. Some travel grants are available for foreign speakers. Several recreational trips will be organised in and around Islamabad introducing the unique local and multi-ethnic culture.

4th International Conference on Combinatorial Mathematics and Combinatorial Computing

Date: 15–19 December 2008

Venue: Auckland, New Zealand

Web: <http://www.cs.auckland.ac.nz/research/groups/theory/4ICC/>

Contact: Mark Wilson (mcw@cs.auckland.ac.nz)

The ICC is held every 10 years. This year it incorporates the annual ACCMCC meeting of the Combinatorial Mathematics Society of Australasia as well as the New Zealand leg of the map conferences held annually in Slovenia/Slovakia/Arizona–Portugal/New Zealand.

Tentative list of invited speakers: Alexander Barvinok, University of Michigan; Peter Cameron, Queen Mary College London; Jan de Gier, University of Melbourne; Jesus de Loera, University of California–Davis; Robin Pemantle, University of Pennsylvania; Cheryl Praeger, University of Western Australia; Chris Rodger, Auburn University; Paul Seymour, Princeton University; Mike Steel, University of Canterbury; Carsten Thomassen, Technical University of Denmark; Nick Wormald, University of Waterloo; Doron Zeilberger, Rutgers University.

Special theme program on group theory, combinatorics and computation

Date: 5–16 January 2009

Venue: The University of Western Australia, Perth

Contact: gcc09@maths.uwa.edu.au

Web: <http://sponsored.uwa.edu.au/gcc09/>

The first week will be an international conference in honour of Cheryl Praeger's 60th birthday. This will be followed by an informal week of short courses, workshops and problem sessions, especially beneficial to early career researchers and postgraduate

15th ‘Computing: The Australasian Theory Symposium’ (CATS)

Date: 20–23 January 2009

Venue: Victoria University of Wellington, New Zealand

Web: <http://velorum.ballarat.edu.au/~pmanyem/CATS09/>

New! From CATS 2009 there will be a discussion track!

Accepted papers will be available online three months prior to the conference. Papers can be analysed and discussed online, so that the time at the actual conference can be utilised in a much more productive manner. For further information, see <http://velorum.ballarat.edu.au/~pmanyem/CATS09/discussion.html>.

Authors are invited to submit papers that present original and unpublished research on topics including (but not limited to) the following areas: algorithms and data structures, complexity theory, graph theory, graph algorithms and combinatorics, semantics of programming languages, algorithms on strings, optimisation, formal program specification and transformation, computational algebra and geometry, computational biology, logic and type systems, and new paradigms of computation.

The deadline for paper submission is 29 August 2008 (abstracts should be submitted a week earlier). Submissions should be made electronically via <http://www.easychair.org/conferences/?conf=cats2009>. See submission details at: <http://velorum.ballarat.edu.au/~pmanyem/CATS09/submission.html>.

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 Florent Autin; Université Paris 7; 15 October 2008 to 15 December 2008; maxisets; USN; M. Raimondo
- Prof Yuri Borovskikh; Transport University; 7 July 2008 to 7 September 2008; asymptotics; USN; N.C. Weber
- Daniela Bubboloni; University of Firenze, Italy; March to April 2008; –; UWA; Prof Cheryl Praeger
- Dr Angelina Yan Mui Chin; University of Malaya; 1 to 30 September 2008; computational algebra; USN; J.J. Cannon
- Ciprian Coman; University of Glasgow; July to August 2008; –; UWA; Prof Andrew Basson
- Prof Richard Cowan; University of Sydney; 1 January 2005 to 31 December 2010; stochastic models; USN; J. Robinson
- Dr Ashraf Daneshkhan; Bu-Ali Sina University; 23 September 2007 to June 2008; –; UWA; Prof Cheryl Praeger
- Prof Alireza Ematollahi; Shiraz University; 15 September 2007 to 15 September 2008; –; ANU; Alan Welsh
- Prof Ahmad Erfanian; University of Mashhad, Iran; May to December 2008; UWA; Prof Cheryl Praeger

- Prof Nicholas Fisher; Statistical Society of Australia/Int. Statistical Inst.; 1 September 2004 to 31 August 2010; statistics; USN; J. Robinson
- Prof Zongming Guo; Henan Normal University; 31 August 2008 to 15 November 2008; large solutions of nonlinear elliptic partial differential equations; USN; E.N. Dancer
- Dr Matthew Greenberg; McGill University; 21 July 2008 to 8 August 2008; arithmetic geometry, algorithms; USN; J.J. Cannon
- Prof David Gubbins; Leeds; 20 September 2007 to 19 September 2008; magnetohydrodynamic dynamo theory and the geodynamo; USN; D.J. Ivers
- Dr Paul Hammerton; University of East Anglia; 1 August to 20 September 2008; –; UWA; Prof Andrew Bassom
- Ms Emily Harvey; University of Auckland; 7 to 18 April 2008; complex calcium oscillators; USN; M. Wechselberger
- Prof Chong Chao Huang; Wuhan University, China; June 2008 to January 2009; –; UWA; A/Prof Song Wang
- Mohammadali Iranmanesh; Yazd University, Iran; 24 October 2007 to July 2008; –; UWA; Prof Cheryl Praeger
- Prof B. Gail Ivanoff; University of Ottawa; 1 May 2008 to 1 June 2008; exchangeability; USN; N.C. Weber
- Prof John Kolassa; Rutgers; 20 July 2008 to 9 August 2008; asymptotic methods in statistics; USN; J. Robinson
- Rishabh Kothari; Indian Institute of Technology; 1 May to 10 July 2008; –; UQL; Dirk Kroese
- Ms Nan Li; The Sichuan Normal University, China; 1 February 2008 to 31 January 2009; –; UWA; A/Prof Song Wang
- Prof Faiza Maaouia; University of Tunis; 18 February to 17 May 2008; branching processes; MNU; Prof Fima Klebaner
- Prof Ian Morrison; Fordham; 10 March 2008 to 30 June 2008; algebraic geometry; USN; G.I. Lehrer
- Dr Alireza Nematollahi; University of Shiraz; 15 December 2007 to 15 December 2008; multivariate analysis and time series; USN; N.C. Weber
- Prof Sen Huat Ong; University of Malaya; 1 June 2008 to 31 October 2008; financial time series modelling; USN; M.S. Peiris
- Prof Shuangjie Peng; Central China Normal University; 15 June 2008 to 31 January 2009; nonlinear elliptic partial differential equations; USN; E.N. Dancer
- Dr Goetz Pfeiffer; National University of Ireland; 25 May to 16 June 2008; –; UWA; Alice Niemeyer
- Dr Maria Pilar Gil Pons; University of Catalonia; 1 February to 31 August 2008; SAGB stars to study both evolution and yields of these stars at a wide range of compositions; MNU; Prof John Lattanzio
- Prof Colin Please; University of Southampton, UK; 15 February to 2 September 2008; –; QUT; –
- Ms Weiwei Ren; Yunnan University, China; August 2007 to August 2008; –; UWA; A/Prof Caiheng Li
- Dr Frederic Robert; Université de Nice; 14 November 2007 to 3 November 2008; applied and nonlinear analysis; ANU; Florica Cirstea
- Prof Willy Sarlet; Universiteit Gent, Belgium; 27 May 2008 to 12 June 2008; differential geometry and differential equations; LTU; Geoff Prince

- Dominic Schuhmacher; University of Zurich; 1 April 2006 to 31 May 2008; –; UWA;
Prof Adrian Baddeley
- Dr Mahendran Shitan; University Putra, Malaysia; 1 June 2008 to 31 October
2008; theory for the class of generalised autoregression under mathematical
statistics/times series analysis; USN; M.S. Peiris
- Dr Qiao Shouhong; Sun Yat-sen University, China; 1 March 2008 to March 2009;
–; UWA; A/Prof Cai Heng Li
- Prof Daniel Silver; University of South Alabama, USA; 1 February 2008 to 31
May 2008; –; UMB; Prof J.H. Rubinstein
- Prof Daniel Silver; University of South Alabama; 7 April 2008 to 9 May 2008;
symbolic dynamics to knot theory; USN; J.A. Hillman
- Maryam Solary; Guilan University, Iran; July 2008 to January 2009; –; UWA;
A/Prof Song Wang
- Dr Mohammad Wadee; –; 1 July to 31 August 2008; –; UWA; Prof Andrew Bas-
som
- Prof Susan Williams; University of South Alabama, USA; 1 February 2008 to 31
May 2008; –; UMB; Prof J.H. Rubinstein
- Prof Susan Williams; University of South Alabama; 7 April 2008 to 9 May 2008;
symbolic dynamics to knot theory; USN; J.A. Hillman
- Dr Huoxiong Wu; Xiamen University, China; January 2008 to November 2008;
harmonic analysis and partial differential equations; MQU; X.T. Duong
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