

ANZIAM 2015

Matthew J. Simpson^{*} and Scott W. McCue^{*}**

The 51st ANZIAM Conference was held on 1–5 February 2015 in the Outrigger Hotel, Surfers Paradise, Australia. A total of 229 people registered for the conference, with nine plenary presentations, 78 student presentations and 107 non-student presentations. Highlights of the conference included the plenary talks, presentations by the 2014 Michell and ANZIAM Medalists, the Women in Mathematics Lunch and the Conference Dinner and Awards Ceremony. The main conference was followed by a one-day workshop entitled ‘Discrete mathematical models in the life sciences’, held at Queensland University of Technology, Brisbane, on February 6, 2015.

The plenary talks comprised seven invited talks and two Medalist talks:

- Hugh Possingham (University of Queensland): ‘Formulating and solving biodiversity conservation problems’;
- Natalie Thamwattana (University of Wollongong; J.H. Michell Medalist): ‘Mathematical modelling in nanotechnology’;
- Tom Witelski (Duke University): ‘Multiscale dynamics of dewetting fluid films’;
- Leah Edelstein-Keshet (University of British Columbia): ‘Models of cell polarization and motility’;
- Ann Juel (University of Manchester): ‘Interfacial instabilities on the pore scale’;
- Mary Myerscough (University of Sydney): ‘Modelling atherosclerotic plaque formation: Boundaries, balances and bifurcations’;
- Michael Small (University of Western Australia): ‘What is a random graph, and why should we care?’;
- Kerry Landman (University of Melbourne; ANZIAM Medalist): ‘Tracing genealogy within Fisher’s travelling wave’;
- Gary Froyland (University of New South Wales): ‘Dynamics, Probability, and Predictability’.

Further details of the presentations are available at the conference website <http://anziam2015.com>. We owe our thanks to the invited speaker committee: Stan Miklavcic (Chair); Matthew Simpson; Scott McCue; Kate Smith-Miles; Georg Gottwald; Michael Plank; Nigel Bean; Yvonne Stokes and Antoinette Tordesillas.

^{*}School of Mathematical Sciences, Queensland University of Technology, Brisbane, QLD.

^{**}Email: matthew.simpson@qut.edu.au



Plenary presentations at ANZIAM 2015. Left: Mary Myerscough’s plenary presentation was chaired by Kerry Landman. Right: Michael Small’s plenary presentation was chaired by Mick Roberts.

The Women in Mathematics Lunch, supported by Nalini Joshi’s Georgina Sweet Australian Laureate Fellowship, celebrated the mathematical careers of the female plenary speakers at ANZIAM 2015. All conference delegates were invited to this special lunch that was hosted by Joanne Hall. The lunch involved a lively question-answer session which followed on from a more detailed question-answer document completed by all female plenary speakers, which can be found at <http://www.austms.org.au/ANZIAM2015-QA>.

The venue for the Conference Dinner and Awards Ceremony was SkyPoint, on level 77 of the Q1 Building. After taking in the views of the ocean, surrounding city and Gold Coast hinterland, delegates enjoyed their meal and the real highlight of the evening was the announcements of the awards of ANZIAM. The following awards were announced:

- The 2015 E.O. Tuck Medal: Associate Professor Troy Farrell (Queensland University of Technology). The E.O. Tuck Medal is a mid-career award for outstanding research and distinguished service;
- The 2015 J.H. Michell Medal: Doctor Barry Cox (University of Adelaide). The J.H. Michell Medal recognises outstanding new researchers;
- The 2015 T.M. Cherry Prize: Mr Hayden Tronnolone (University of Adelaide). This prize is for the best student talk at the ANZIAM conference;
- The 2015 A.F. Pillow Applied Mathematics Top-up Scholarship: Mr Pouya Baniasadi (Flinders University). This award is for a PhD student in applied mathematics.

After the close of the main conference, the School of Mathematical Sciences at Queensland University of Technology hosted a one-day workshop on 6 February entitled ‘Discrete mathematical models in the life sciences’. The workshop was attended by approximately 60 delegates who heard plenary talks from Leah Edelstein-Keshet, Kerry Landman and Michael Small. The plenary talks by Leah and Michael focused on technical aspects of their research using discrete models while Kerry’s plenary talk focused on how interactions with collaborators from the life sciences



2015 E.O. Tuck Medalist, Associate Professor Troy Farrell.

Left-to-right: Bob Anderssen, Troy Farrell, Larry Forbes and Kerry Landman.

had shaped her career. In addition to the plenary talks, the workshop hosted another eight regular presentations. The lunch break in Old Government House gave all delegates plenty of opportunity to meet and mingle with the plenary speakers and other delegates. At the close of the workshop many delegates continued lively discussions at Queensland University of Technology's Botanic Bar.

We would like to thank Bronwyn Hajek (chair) and the other members of the T.M. Cherry Prize committee. We also appreciate the CSIRO Student Support Scheme which assisted 48 students to attend the conference. The sponsors of ANZIAM 2015 also deserve special acknowledgment, these include the School of Mathematical Sciences at Queensland University of Technology, Hearn Software, Mathworks, QCIF and Pearson.

Special thanks also goes to the ANZIAM 2015 organizing committee: Matthew Simpson (Co-director), Scott McCue (Co-director), Peter van Heijster, Owen Jepps, Peter Johnston, Barbara Johnston, Zoltan Neufeld, Graeme Pettet and Tony Roberts (University of Queensland). We thank Raymond Johnson from Queensland University of Technology for his administrative support, and we also acknowledge the assistance of Natasha Boland and Steve Taylor, who passed on vital information and resources from ANZIAM 2013 and ANZIAM 2014, respectively. Finally, we thank Mark McGuinness for kindly offering to take photographs throughout the conference.