

MISG2008

Mathematics and Statistics in Industry Study Group

Tim Marchant* and Maureen Edwards**

MISG2008, the Mathematics and Statistics in Industry Study Group, was held at the University of Wollongong (UOW), from 28 January to 1 February 2008. The MISG2008 team comprised Professor Tim Marchant (Director), Dr Maureen Edwards (Associate Director) and Ms Joell Hall (Administrator).



From left: Professor Andrew Fowler, Universities of Limerick and Oxford, Dr Jane Sexton, GeoSciences Australia, Professor Tim Marchant, Director MISG2008 and Dr Maureen Edwards, A/Director MISG2008

The event attracted 100 delegates, including 20 postgraduate students, who worked on seven industry projects. Five of these projects were submitted by Australian companies and two were from New Zealand. The disciplines of applied mathematics, financial mathematics and statistics were all represented in the week's activities with many projects having an interdisciplinary flavour.

The invited speaker was Professor Andrew Fowler, from the Universities of Limerick and Oxford. His plenary talk, titled 'Freckles, Volcanos and Rivers: Channelisation in the Industrial and Scientific World', was well received by the audience. Thanks also to Professor Jim Hill, from UOW and Dr Milorad Kovacevic, Statistics Canada, for their seminars during MISG week.

MISG2008 was opened by Professor Lee Asthiemer, DVC-Research at Wollongong. Many thanks to Lee for attending the opening ceremony, which was held

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on the Australia Day public holiday. The industry project sponsored by Provisor and Food Science Australia, on the ‘Shelf life of wine’, attracted significant media publicity, with an article appearing in the *Illawarra Mercury*. The photo below accompanied the *Illawarra Mercury* article and shows Tim, Geoff and Philip tackling the shelf life issue in a direct manner; by drinking the contents!

Due to the broad range of skills required to tackle modern industrial mathematics problems, many high-profile scientists from the Australian and NZ statistics and financial mathematics communities attended MISG2008 as delegates or moderators. If the MISG meeting is to remain relevant and important in the coming years then this multi-disciplinary approach to industrial problem solving needs to continue, with participation at MISG from all the mathematical sciences.



From left: A/Professor Geoff Mercer, UNSW@ADFA and Provisor project moderator, Professor Tim Marchant, Director MISG2008 and Mr Philip Giesbertz, Provisor Australia.

Moderation of an MISG project is a challenging task involving problem solving, people management and a very tight deadline. Our thanks and gratitude go to the moderators of each of the MISG2008 projects. See our website for the industry project descriptions from MISG2008, the equation-free summaries of the projects and the project reports, as they become available: <http://www.misg.math.uow.edu.au>.

Our website also provides details of MISG2009, to be held from 27 to 31 January 2009 at UOW. Professor Alistair Fitt, who is PVC-R at the University of Southampton has agreed to be the invited speaker for MISG2009. He is a regular at the European Study Group in Industry and an acknowledged expert on industrial mathematics. Another exciting development is that UOW is hosting the AMSI Summer School in January 2009 and a course on industrial mathematics will be on offer. It will be possible for postgraduate students to participate in MISG2009 as part of this AMSI Summer School course. We hope to see everybody at UOW for the 2009 event.

Tim Marchant completed a PhD in nonlinear waves at the University of Adelaide in the late 1980s. He is currently Professor and Head, School of Mathematics and Applied Statistics at the University of Wollongong. His research interests include nonlinear waves, nonlinear optics, industrial mathematics and combustion theory.

Maureen Edwards spend a year as a student at James Cook University before a break in food services and as a clerk at Telecom. Returning to study a BMath at University of Wollongong in 1988, she has since stayed on to complete honours, a PhD and take up an academic position. She is currently a senior lecturer in the School of Mathematics and Applied Statistics, with research interests in Lie symmetry analysis and the application of Lie groups to nonlinear partial differential equations.