



# President's Column

**Peter Taylor\***

As I write this, I have been back at the University of Melbourne for a few days after spending the previous three weeks at mathematics conferences of different types.

The first of these was the Australia and New Zealand Applied Probability Workshop (ANZAPW), which was one of two workshops that made up the 'Summer Workshops in Probability' in Auckland. These workshops were examples of the type of conference that many academic mathematicians enjoy most—a gathering of a relatively small number of experts, run at a pace that does not require parallel sessions, and that allows time for extended talks and development of collaborations. I really enjoyed the chance to engage deeply with mathematics that I'm passionate about, and I came away with a number of good research ideas to pursue in the future.

The second conference, the 2012 ANZIAM conference held in Warrnambool, was of a different nature. It continued the tradition that has developed over a number of years of presenting an eclectic mix of talks dealing with topics across the entire spectrum of applied mathematics.

I like the ANZIAM conference for a number of reasons, but the best thing about it is the platform that it provides for students. I believe that there were something like 67 students at this year's ANZIAM conference, most of whom gave talks. That this number was able to attend is due in no small measure to the CSIRO–ANZIAM Student Support Scheme. Under this scheme, CSIRO provides \$15 000 per year to help fund students to attend the ANZIAM conference and those of its special interest groups. CSIRO has just agreed to continue this scheme for a further four years. I would like to thank Frank de Hoog and the previous and current heads of the CSIRO Division of Mathematics, Informatics and Statistics, Murray Cameron and Louise Ryan, for their support of this scheme. In terms of developing Australian mathematics, I think their contribution provides money very well spent.

For many years, students at the ANZIAM conference have competed for the TM Cherry Prize, awarded for the best student talk. This has always provided an incentive for students to put a large amount of effort into their presentations, and the results this year lived up to the standard of previous years. More recently, the students have reciprocated by instituting the 'Cherry Ripe Prize' for the best talk

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by a non-student. The existence of this prize has had two very positive effects. The first is that the standard of 'staff' presentations has got much better, to the extent that it is rare to see a poor presentation by anyone at the ANZIAM conference.

The second and, I believe, more important, consequence is that the Cherry Ripe Prize gives students from different institutions a reason to get together and organise themselves from the beginning of the conference. It is great to see the subsequent development of social interaction and networking that occurs amongst the students. I'd like to think that the leadership of Australian and New Zealand applied mathematics in twenty years' time will have its roots in such interactions that occur today.

The third conference that I attended was the Maths for the Future: Keep Australia Competitive Forum, organised in Canberra by the Australian Mathematical Sciences Institute (AMSI). The purpose of this event was to bring politicians, public servants, and industry users of mathematics together with representatives of the mathematical sciences community to discuss initiatives for ensuring that Australia will have sufficient mathematical skills for its projected needs.

The keynote speaker was Celia Hoyles, former mathematics advisor to the British government, and talks were also given by the Chief Scientist Ian Chubb, politicians Christopher Pyne, Chris Evans and Sophie Mirabella, and a very impressive line-up of industry and government leaders. A full list of the speakers can be found at [www.amsi.org.au/component/content/article/793](http://www.amsi.org.au/component/content/article/793).

A highlight was the conference dinner address by Brian Schmidt, the 2011 Nobel Prize winner in physics, who emphasised the widespread nature of the need for mathematical skills at all levels by referencing the occupations of his own extended family.

The 'Maths for the Future' conference was the best event of its type that I have been involved in. I'd be surprised if the mathematical sciences community in this country has ever been able to line up such a list of speakers to concentrate on what needs to be done to nurture the discipline. The consequent media exposure has also been very good. Geoff Prince and his team at AMSI are to be congratulated for putting on the event and also for their ongoing attention to raising the profile of the mathematical sciences in government circles.

In his address to the forum, the Chief Scientist Ian Chubb explained that he is about to put to the Prime Minister a range of recommendations for action that could be taken to ensure the ongoing health of the mathematical sciences. He was not in a position to let us know the details of his recommendations. However the issues are 'out there' and there is considerable optimism that action from the government will happen. The Forum was anxious not to take any action to preempt any recommendations that the Chief Scientist might make. However it did

issue a communiqué, which contained two specific recommendations. The first part of this communiqué was:

In order to anchor the future policies and actions of governments, the universities, schools, businesses and the professions, we the participants, representing stakeholders in these key areas, recommend the following to the Australian Government and to the Chief Scientist:

- the appointment of a national mathematical sciences advisor to advise, coordinate and promote policy initiatives
- a five-year national awareness campaign for mathematics and statistics targeting both the school and higher education sectors and the general public. The campaign will showcase the mathematics that underpin our modern economy and culture, highlighting the importance of school mathematics studies in a wide variety of careers, and encouraging the provision of effective advice on subject choice at secondary and postsecondary levels. Professional development for both mathematics and careers teachers is essential for the success of this campaign.



Peter Taylor received a BSc(Hons) and a PhD in Applied Mathematics from the University of Adelaide in 1980 and 1987 respectively. In between, he spent time working for the Australian Public Service in Canberra. At the beginning of 2002, after periods at the Universities of Western Australia and Adelaide, he moved to the University of Melbourne. In January 2003, he took up a position as the inaugural Professor of Operations Research and held the position of Head of Department from 2005 to 2010.

Peter is the editor-in-chief of *Stochastic Models*, an associate editor of *Queueing Systems* and a member of the editorial board of the *Journal of Applied Probability* and *Advances in Applied Probability*.

Peter's research interests lie in the field of applied probability, with particular emphasis on applications in telecommunications, biological modelling and healthcare. Recently he has become interested in the interaction of stochastic modelling with optimisation and optimal control under conditions of uncertainty.