



President's Column

Tim Marchant*

I have recently returned from a nonlinear optics conference held in southern Mexico. It was pleasant to catch up on the latest research developments in an exotic location but my colleagues reported a number of worrying trends which will be familiar to researchers in Australia. Firstly the number of delegates attending the meeting was much lower than in previous years, due to the difficulty in sourcing travel money. Secondly, there were many reports that competitive research grants were becoming harder to get with success rates for some schemes much less than 10%. World class research activity requires international collaboration and grants and travel money are both key to supporting these types of research links. Of course, there are no easy solutions to these issues which will probably persist for a long period of time. The Australian sector is better off than many other places, due to the funding that flows from our strong international student market. However, on the flip side, it is much more costly for us visit our international collaborators, due to the tyranny of distance.

The 2016 Science Meets Parliament was held in early March. The two AustMS representative were Prof. Troy Farrell, QUT, and myself. SMP brings together over 100 scientists, from a vast range of professional societies, for two days of presentations and a small group meeting with a MP. I particularly enjoyed the talks by Prof. Brian Schmidt, now VC at the ANU and the Australian Chief Scientist, Dr Alan Finkel. I spoke to two Labor backbenchers during the event and listened to presentations by both Bill Shorten and Christopher Pyne. All expressed very positive sentiments about Science and Technology. It seems that most aspects of government policy in this area have bipartisan support. Two common and clear themes were expressed by everyone associated with SMP; the growing importance of university interaction with industry and the need to support more female scientists in Australia to achieve senior career positions.

In one of my columns last year I discussed the ACOLA review of Australia's research training system. The final report has now been released and it makes recommendations regarding industry involvement in HDR training and the value of industry placements. In particular it states that every candidate who wishes to undertake an industry placement should be encouraged to do so. The Mathematical Sciences are well placed in this endeavor due to existing programs such as ASMI Intern and also the Mathematics in Industry Study Group. However the scale of placements needed to satisfy student demand is likely to very large and hence challenging to implement. For example, HDR supervisors may need to develop

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new industry relationships and links in order to offer suitable placements to their students.

The film 'The Man who Knew Infinity' is to be released in Australia in early May. It concerns the life of Ramanujan who gains admittance to Cambridge University during World War I and studied with G.H. Hardy. Prof. Manjul Bhargava, Fields Medalist and invited speaker at AustMS 2015, was an Associate Producer for the film, so I assume that the presentation of the mathematics is reasonably authentic. There are not many films made about mathematics and fewer still with well known stars (Jeremy Irons plays Hardy) so this one may be worth a look.



Tim Marchant received his Doctorate from Adelaide University in 1989. After graduation he joined Wollongong University where he is currently Dean of Research and Professor of Applied Mathematics. His research areas include nonlinear optics, nonlinear waves and combustion theory. Tim is a Fellow of the Australian Mathematical Society, a Member of the Endeavour Awards selection panel and on the editorial board of *Applied Mathematical Modelling*. His other interests include playing bridge and learning Mandarin.