



President's Column

Tim Marchant*

Happy new year to all members of the Society. I hope everyone had a nice holiday break.

In February I will be attending both the 2016 ANZIAM conference, held in Canberra, and the Australian Council of Heads of Mathematical Sciences meeting, held in Melbourne. So I'm looking forward to catching up with colleagues and friends and discussing the issues that will affect the mathematical sciences community during the year.

Last December the 2015 results for Excellence in Research for Australia (ERA), the national research evaluation framework, were announced. Assessments are made at both the discipline level (the 2-digit FOR codes) and sub-discipline level (4-digit FOR codes). For the mathematical sciences the sub-disciplines comprise pure mathematics, applied mathematics, numerical and computational mathematics, statistics, and mathematical physics. The results for the mathematical sciences are simply outstanding, with 47 different 4-digit Units of Evaluation (UoE) attracting a rating of 4 (above world standard) or 5 (well above world standard). This represents a large improvement on the ERA2012 assessment, where 33 UoE in the mathematical sciences rated a 4 or 5. One area of concern however are the results for mathematical physics; the six UoE all scored a 3 (at world standard). Given the significant increases in ERA ratings for pure, applied and statistics, it seems anomalous that ratings for mathematical physics are so much lower than their sister disciplines and also lower than the ratings for ERA2012. Hopefully the citation benchmarks used by the ARC will be made available, so we can understand this and other trends in the ERA ratings.

ERA evaluations have taken place in 2010, 2012 and 2015 with the next edition due in 2018. I believe it is an appropriate time for the ARC to review and modify the processes and criteria used for ERA. Since ERA commenced, international rankings of universities have grown in number and scope with detailed subject rankings now available. The use of citation data is common to ERA and most international rankings so we need to be careful that future ERA evaluations (which are very time consuming for universities and their staff) are well differentiated from assessments and data that are available elsewhere. The ERA assessments are based on the ABS Fields of Research (FOR) codes, which haven't been updated since 2008. I think these FOR codes need review to reflect the rapidly changing nature of research. In particular better ways to capture and report on interdisciplinary research are needed. Also the Australian government's new industry innovation

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agenda may well influence ERA too, with part of future evaluations based on industry interaction and engagement.

The University of Melbourne has recently established and funded MATRIX, a new mathematical research institute, and appointed Professor Jan de Gier as Director. MATRIX programs will take place at the Creswick campus, which is near Ballarat in rural Victoria. MATRIX will attract high profile international researchers to Australia to collaborate with members of Australia's mathematical sciences community. Hence MATRIX is similar in concept to the Banff International Research Station (Canada) and Oberwolfach Research Institute for Mathematics (Germany) which bring researchers together for short but intense periods of collaboration, at a remote location. I congratulate Melbourne University and Jan on the establishment of MATRIX and hope that it leads to an increased number of international research collaborations for our members. Visitors to MATRIX may also enjoy walking in the bush, learning about the region's gold-mining heritage and tasting local wine.



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.