



# Editorial

As the Australian education system is experiencing turbulence and our discipline is facing serious challenges, it seems appropriate to begin this Editorial by mentioning the very interesting US National Research Council report ‘The Mathematical Sciences in 2025’ (visit [www.nap.edu/catalog.php?record\\_id=15269](http://www.nap.edu/catalog.php?record_id=15269) to download it). The following is the description:

The mathematical sciences are part of nearly all aspects of everyday life—the discipline has underpinned such beneficial modern capabilities as Internet search, medical imaging, computer animation, numerical weather predictions, and all types of digital communications. *The Mathematical Sciences in 2025* examines the current state of the mathematical sciences and explores the changes needed for the discipline to be in a strong position and able to maximize its contribution to the nation in 2025. It finds the vitality of the discipline excellent and that it contributes in expanding ways to most areas of science and engineering, as well as to the nation as a whole, and recommends that training for future generations of mathematical scientists should be re-assessed in light of the increasingly cross-disciplinary nature of the mathematical sciences. In addition, because of the valuable interplay between ideas and people from all parts of the mathematical sciences, the report emphasizes that universities and the government need to continue to invest in the full spectrum of the mathematical sciences in order for the whole enterprise to continue to flourish long-term.

The chapters include ‘Vitality of the Mathematical Sciences’; ‘Connections Between the Mathematical Sciences and Other Fields’; ‘Important Trends in Mathematical Sciences’; ‘The Changing Academic Context’.

Nalini Joshi, Chair of the National Committee of Mathematical Science in her report, brings to our attention the fact that the Australian Academy of Science is about to embark on an exercise to assess the economic impact of the physical sciences (chemistry, earth sciences, mathematics and physics) on the Australian economy. She says: “To whet your appetite for this extremely important study, I wanted to describe a recent study of the economic impact of the mathematical sciences on the Dutch economy and its major findings.” She goes on to say: “The resulting calculations of economic impact are astonishing. The direct impact of mathematical sciences employment on the Dutch economy is estimated to be 71 billion Euro in gross value added (GVA). The indirect effect, arising from procurement of goods and services by mathematically intensive parts of industries from other industries amounts to 37 billion Euro in GVA. The induced effect, i.e., impact of household spending resulting from direct and indirect effects of mathematical sciences jobs, amounts to an additional 51 billion Euro in GVA.”

Peter Forrester in his President’s Column in this issue updates us on ERA and ARC matters. It is important that research active academics keep abreast of what

is happening in these areas. Peter also makes mention of the fact, highlighted by the Editor-in-Chief Cheryl Praeger, that only five books have been published in the last decade in the Australian Mathematical Society Lecture Series. As the Founding Editor-in-Chief of that series of books, I encourage Australian authors to consider publishing books there.

Geoff Prince, AMSI Director, reminds us that “biology is being revolutionized by mathematics, statistics and computer science” and encourages participation in BioInfoSummer 2014 at Monash University, 1–5 December and also reminds readers of the 2014–2015 Vacation Research Scholarships. Last year AMSI offered a record 55 six-week vacation scholarships to mainly third-year students.

This issue also contains an obituary for Professor Pavel Karel Smrz.

And finally congratulations to Terry Speed and Kate Smith-Miles: “For his superb leadership of the bioinformatics team at the Walter and Eliza Hall Institute of Medical Research and his other contributions to the science of bioinformatics, Terry Speed has been awarded the CSIRO Eureka Prize for Leadership in Science”; The ARC recently announced the award of a Georgina Sweet Laureate Fellowship to Professor Kate Smith-Miles of Monash University.

David and I encourage you to enjoy the items mentioned above as well as the Puzzle Corner, book reviews, conference reports, Lift-Off fellowship Report by Natalie Aisbett and the report of the AMSI monitoring of participation in Year 12 mathematics by Frank Barrington and Peter Brown.

Sid Morris, Adjunct Professor, La Trobe University;  
Emeritus Professor, Federation University Australia.  
Email: [morris.sidney@gmail.com](mailto:morris.sidney@gmail.com)



Sid Morris retired after 40 years as an academic. He received BSc (Hons) from UQ in 1969 and PhD from Flinders in 1970. He held positions of Professor, Department Head, Dean, Deputy Vice-Chancellor, CAO and CEO. He was employed by the universities: Adelaide, Ballarat, Flinders, Florida, La Trobe, UNE, UNSW, UQ, UniSA, Tel-Aviv, Tulane, Wales, and Wollongong. He was Editor of *Bull. AustMS* and *J. Research and Practice in IT*, and founding Editor-in-Chief of *AustMS Lecture Series*. He was on the Council of AustMS for 20 years and its Vice-President. He received the Lester R. Ford Award from the Math. Assoc. America. He has published 140 journal papers and 4 books for undergrads, postgrads and researchers, plus an online book, supplemented by YouTube and Youku videos, and translated into 6 languages. The third edition of the 900-page book *The Structure of Compact Groups* by Karl H. Hofmann and Sid was published in 2013 by Water De Gruyter GmbH, Berlin/Boston.