



AMSI News

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Don't miss the imminent launch of the third issue of the Update, which puts the spotlight on research and mathematics as the foundation of discovery and innovation. As we seek to take our research programs to the next level, a National Research Centre for the Mathematical Sciences remains at the very top of AMSI's agenda and is a key recommendation of the new decadal plan for the mathematical sciences. The Mathematical Sciences in Australia: A Vision for 2025 recommends:

Australian universities should collaborate with the discipline to source seed funding for a new national research centre in the mathematical sciences with the objective of enhancing connectivity with industry and strengthening the international collaboration and visibility of Australian research in mathematics and statistics.

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As we argue our case for a national research centre and explore a potential workable model to strengthen Australian mathematical sciences, we showcase global success stories in the Update. Hear from leaders of some of the most successful mathematics institutes in the world including Canada's Pacific Institute for the Mathematical Sciences, Singapore's Institute for Mathematical Sciences, Germany's Oberwolfach and the UK's Isaac Newton Institute for Mathematics.

Renaissance man turned Chief Scientist, Dr Alan Finkel shares his vision for Australian science's top job and reminds us that it is not just 'high-technology workers and industries where mathematical literacy counts, it is the foundation of all commercial exchange'. With Australia on-track to transition to an innovation and STEM economy Dr Finkel highlights the critical importance of national programs such as AMSI Intern and ATSE's IMINS mentoring program, delivered on initiatives of non-university organisations and reminds us 'we owe it to STEM PhD graduates to prepare them for industry... paths to which a PhD can bring valuable transferrable skills'.

The power of industry engagement is evident in our coverage of Dr David Price and Dr Jonathan Tuke's AMSI Intern experience. When Jonathan was offered the opportunity to be Academic Mentor on a project with SA Pathology it was a chance show his protégé David Price how 'practical application, statistical theory and modeling collapse under the wings of reality. Suddenly you are in the real world with all the variables and challenges that brings'. Find out how this dip in the industry pool profoundly changed them both.

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This issue, we also catch up with PhD student, Charles Gray, who explains why ‘It isn’t strange or far fetched for a musician to become a mathematician’. After over a decade in music, she embarked on a key change swapping gigs and piano lessons for maths and cancer research. We find out how AMSI helped her discover a brand new world ‘opening up opportunities such as a Victorian Research Scholarship at Walter Eliza Hall Institute and its world class training events’.

‘Maths is everywhere! It is a universal language. Having maths as one of the subjects studied in Year 11 and 12 will open doors for future choices, courses and careers.’

Finally, we also visit the classroom to find out how Australia’s best maths educators, such as Santa Maria College, Northcote’s Jacinta Deylen are encouraging a new generation of discovery.

What would a research special be without research? We enter the world of wave science. Australian researchers are rapidly discovering new applications of wave theory. KOZwaves 2015 organiser, Luke Bennetts, talks wave science and how this biannual event is bringing the local wave science community to the global stage. Seeded during the recent event, Luke tells us about his forthcoming collaborative project with members of the DST Group and his planned trip to visit the Waves in Complex Media Group at KAUST, Saudi Arabia.

You can find the Update online at <http://amsi.org.au> or in your department common room.



As AMSI's media and communications officer, Laura Watson is responsible for delivering media and communications initiatives to raise community and stakeholder awareness of AMSI and its programs within the mathematical sciences, industry, government, media and general public. With a background in both the public and not-for-profit sectors and science communications, Laura's most recent roles have included provision of media and communications to support to drive state-wide sustainable transport initiatives eISmart maps and management of media and communications and fundraising for Prince Henry's Institute of Medical Research.