



# AMSI News

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## **AMSI Optimise announced**

**MAXIMA at Monash University, 26–30 June 2017**

We are very pleased that the first AMSI Optimise event will take place at Monash University in the week of 26 June 2017. Hosted by the University's MAXIMA research platform and directed by Professor Andreas Ernst, AMSI Optimise comprises a three-day research/industry symposium followed by a two-day research workshop. AMSI Optimise joins our other flagship programs co-funded by the Commonwealth. The principal theme of the three-day symposium is logistics, you can see the full program at <http://optimise.amsi.org.au>.

## **AMSI Winter School 2017: Computational Foundations of Data Science**

**QUT, 26 June to 7 July 2017**

This will be QUT's first Winter School (but we all know there is no winter in Brisbane). Professor Ian Turner (QUT) is the School's Director and Professor Hans de Sterck (Monash) is the Scientific Director. As usual the School is built around a major and current topic, offering considerable benefit to PhD students and ECRs. Under the broad heading of computational foundations of data science the sub-themes are: Inverse Problems, Numerical Linear Algebra, Bayesian Inference and Data Assimilation, Machine Learning, Model Reduction Methods and Nonlinear Optimisation. You can see further details at <http://ws.amsi.org.au>.

## **NCRIS passes the buck!**

In the last AMSI News I complained about the maths vacuum in the NCRIS (National Collaborative Research Infrastructure) Discussion Paper. Well, in the Draft Roadmap <https://docs.education.gov.au/node/42216> maths does finally rate a mention (on page 17):

As the complexity of the research methods and technologies to undertake ground breaking research grows, advanced mathematics continues to be an important and scarce resource. Maximising the development of algorithms and predictive modelling scenarios, integral to many areas of research, can only be realised with strong mathematical capabilities.

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However,

While national research infrastructure facilities can provide an enabling and facilitation role, there are limits to the extent that the skills gaps can be addressed by facilities.

And the buck is thereby passed to the universities who are meant to supply this scarce resource by implementing the recommendations of the ACOLA Review of Research Training. You can read AMSI's critique of this lack of leadership at <https://submissions.education.gov.au/forms/2016-strategic-roadmap/pages/index>.

### AMSI Research Report 2015–2016

Our latest annual Research Report was released at the end of last year covering our workshop program, flagship research training events, internships, ACE program and lecture tours. It contains reports of all our workshops including some features, an interview with Terry Tao, a piece on female participation in research and profiles of interns and vacation scholars. It has been produced in AMSI's usual accessible and classy style and you can find it online at <http://amsi.org.au/publications/research-reports-2015-16/> and in departmental common rooms around the country.

### AMSI Intern expansion

At the time of writing (1 February) a draft contract from the Commonwealth is imminent for the \$26m expansion of the AMSI PhD Intern program. This will deliver an expected 1400 places through till the end of 2020 and a significant percentage of these will continue to be in the mathematical sciences. A comprehensive description of the program will appear in the next *Gazette* and also be delivered direct to our members.



I completed a BSc (Hons) and secondary Dip Ed at Monash University in the 1970s and moved to La Trobe where I undertook a PhD in 1981 in geometric mechanics and Lie groups. I did a postdoc at the Institute for Advanced Study in Dublin.

I've taught at RMIT, UNE and La Trobe University, where I was Head of Department a couple of times in the last decade. I worked at AMSI from 2004 through to 2006 in part as executive director to Garth Gaudry and I oversaw the introduction of the AMSI/ICE-EM Access Grid Room project. I became AMSI director in September 2009.

My research interests lie mainly in differential equations and differential geometry and I work with friends in Europe: Mike Crampin, Willy Sarlet, Olga Krupkova and Demeter Krupka.

My partner is a mathematician and we have two children with a refreshing lack of interest in mathematics. On the margins I brew beer and ride a bike.

I'm a proud Fellow of the Society and am currently a Council member and a steering committee member.