



ANZIAM News

Larry Forbes*

As most readers of the *Gazette* will know, until very recently ANZIAM was the only Division of the Australian Mathematical Society. From its beginnings, it has sought to foster Applied Mathematics wherever the opportunity has arisen. For me, perhaps the most interesting thing is to see how the meaning of ‘Applied Mathematics’ has changed and broadened over the past three decades. The subject used to be dominated by traditional mechanics, with a focus on fluids and solids, and heavy use of asymptotic methods. That’s certainly my own background, and it continues to have a lot to offer, although increasingly in non-traditional applications. For some decades, ANZIAM has also had a strong presence in operations research, and can boast impressive results that have been of use in practical scheduling problems. Ultimately, the research focus of ANZIAM is driven entirely by its membership, and in particular the types of problems that members like to discuss at the ANZIAM annual Conferences. So in more recent times, strong groups have arisen in ANZIAM, specializing in various aspects of mathematical biology, modern approaches to dynamical systems and complexity, and various types of optimization problems, combining approaches that range from the abstract and ‘pure’, across the spectrum to the computational and algorithmic.

ANZIAM’s major activity is its annual conferences each February. These are designed to be as informal as possible, while nevertheless featuring plenary talks from World experts. Increasingly, there has been a focus on student presentations, and the quality of those talks seems to be a monotonically increasing function of time. At the 2015 Conference in Surfers’ Paradise, there were 78 student talks and 107 non-student presentations. Many of us feel that sending students to these annual meetings may be our most important activity; not only does this allow students to form their own networks, but it also gives them the opportunity to defend their thesis work in a friendly atmosphere, in a way that otherwise may not be available in the Australian system. We’ve been extremely fortunate to have support from CSIRO, providing funds to assist student travel, and ANZIAM is grateful to CSIRO and Frank de Hoog for making this possible. With recent government cuts, the future of this scheme is unclear, but ANZIAM is committed to trying to retain some sort of student assistance scheme.

Another important activity is the annual Maths-in-Industry workshop, held in January or February. Here, mathematicians get to work with industry representatives on practical problems. We’re very grateful to Troy Farrell and QUT for hosting this over the past three years. The workshop has now moved to the University of South Australia for the next three years with Peter Pudney as Director.

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In 2015, the New Zealand branch of ANZIAM also held a similar workshop in July at Massey University in Albany, with Graeme Wake as its Director. This is planned to continue as a winter meeting each year.

ANZIAM also supports a number of other meetings, jointly with AMSI and AustMS. Most recently, Phil Broadbridge has negotiated a joint meeting in Hang Zhou, in Southern China, during November 2016. This is definitely a new type of initiative for us and will be remarkably interesting!

Since this is the first of these articles, I've tried to give a bit of an overview of ANZIAM's current activities. But, of course, it's the members who make these events worthwhile and fun, and sometimes the best work gets done in the evening around a beer! For me, as for many of us, ANZIAM has been the principal means by which we've made contacts in Australia, New Zealand and abroad, and a fair amount of this has led to joint research projects, and perhaps most importantly, the making of friendships within the profession.



Larry Forbes is an Applied Mathematician, who describes his research interests as 'opportunistic'. He received his PhD degree from Adelaide University in 1981, and studied free-surface fluid flow. He worked briefly on high-energy lasers at the Defence Department in Melbourne, before moving to Iowa City in the USA to study ship hydrodynamics. Later he was an Assistant Professor at Kansas State University for three years before moving to the Maths Department at the University of Queensland. In 2000, he took a chair in Mathematics at the University of Tasmania. Recently, he has worked on problems in fluid mechanics, MRI engineering, dynamical systems, combustion, and optics in general relativity. He was head of school in Tasmania from 2001 to 2008 and served on the ARC mathematics panel for the three years 2002 to 2004. He has about 170 papers and a couple of patents, and enjoys teaching, research, cool weather, good music, and playing with cats.