EDITORIAL: MATHEMATICAL METHODS
FOR APPLICATIONS

This special issue is associated with the conference "Mathematical Methods for Applications", which was jointly hosted in the city of Hangzhou by ANZIAM and the Zhejiang Provincial Applied Mathematics Society on 11th–14th November 2016, in collaboration with the Society for Industrial and Applied Mathematics. We are grateful for the sponsorship from ANZIAM, ZPAMS, the Australian Mathematical Sciences Institute, Zhejiang University of Science and Technology, China Jiliang University and La Trobe University. In particular, Professor Jueliang Hu from Zhejiang University of Science and Technology, and Professor Feilong Cao from China Jiliang University, arranged for considerable local support.

All of the papers have at least one joint author of East Asian origin, so this large special issue should help to raise the profile of the *ANZIAM Journal* in the largest continent. We are very pleased with the response from our Chinese colleagues to the call for submissions.

The subjects of the papers are telling. Mathematics departments in many prominent Chinese universities include a section on machine learning, a subject that is found mainly in electrical engineering departments, and sometimes in computer science departments in Australia. A number of papers in this special issue make some reference to that topic, using neural nets and fuzzy control. Another common topic was stochastic processes, whose presence is also growing in Australian and New Zealand universities.

We have grouped the papers according to possible areas of application. The groups are labelled as: "Techniques related to signal analysis and machine learning" (8 papers), "Techniques related to graphs and networks" (7 papers), "Techniques related to Finance and Economics" (6 papers), "Techniques related to mechanics" (5 papers) and "Techniques related to biology and ecology" (4 papers). We hope that as well as gaining insight on some trends in East Asian mathematics, readers will find some of the individual papers to be stimulating.

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