THE UNIVERSITY OF WESTERN AUSTRALIA
Achieve International Excellence

FACULTY OF ENGINEERING, COMPUTING AND MATHEMATICS

Mathematics & Computation for Complex Systems Research Theme

FULL-DAY WORKSHOP: 20 APRIL 2012

"Mathematics provides an instrument for the study of nature."
- Henri Poincaré, Statistical Mechanics of Disordered Systems

The modern world could not have come about without the assistance of mathematics and computation; these disciplines underpin all science and engineering, overlap philosophy, and aspire to aesthetics. The great challenge for mathematics and computation in the 21st Century is to deal with increasingly complex systems; not just the natural systems around us, or complex systems we build, but the interactions between them and the impacts of one on the other.

The purpose of the Mathematics and Computation for Complex Systems Theme Workshop is to facilitate the sharing of knowledge, ideas and technical skills between experienced and emerging researchers and research students who are faced with the challenges of dealing with complex systems.

The theme is intentionally given a broad interpretation. Encompassing the modelling and simulation of complex systems, data analysis, model verification, forecasting, and fundamental aspects of analysis, computation, combinatorics and symmetry.

The theme encourages greater collaboration across disciplines and institutions, and encourages communication of research to a wider community. The theme promotes increased research success through sharing knowledge of resources, awareness of funding opportunities, and opportunities to apply your knowledge and skills to other fields of research.

Aims

The aims of the first Mathematics and Computation for Complex Systems Research Theme workshop are to:

- provide an opportunity for researchers at all levels throughout the Faculty to meet and find out more about complex systems related research currently going on in the Faculty;
- identify and discuss collaboration opportunities;
- share information about existing resources available at UWA and funding opportunities in the field; and
- discuss research in Mathematics and Computation for Complex Systems and how to build the area at UWA.

Speakers

The workshop will be convened by the theme leader Prof Kevin Judd, and will include a plenary talk by the new Future Fellow to the Faculty Prof Michael Small. Potential speakers are now invited from research groups to give an overview of their group's work, and from individuals on specific topics. If you wish to give a presentation, please contact Ilse Lorenzen as soon as possible. Speakers will be selected and the program finalised by Prof Judd. A detailed program will be available closer to the date.

Target Audience

All researchers, including research students, in the field of Mathematics and Computation at UWA are invited to participate.

Program

Date: 20 April 2012
Time: 8:45am - 5:00pm
Venue: Case Study Room, The University Club of WA
Cost: Free to UWA staff and students

Registration

In order to register your attendance at this workshop, please contact Ilse Lorenzen by 5 April 2012 at:
Email: ilse.lorenzen@uwa.edu.au
Phone: 6488 4277

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