News from the Head of School

The Alan Turing Centenary Conference

The Turing Conference has been a great success thanks to Andrei Voronkov's achievement in securing an outstanding line-up of speakers and panel members. [http://www.turing100.manchester.ac.uk/](http://www.turing100.manchester.ac.uk/)

The entire conference has been streamed and will be available in due course at [http://videolectures.net/](http://videolectures.net/). One highlight that you can see already is Garry Kasparov playing chess against Alan Turing's chess program Turochamp on stage in Manchester Town Hall, winning in 16 moves. [http://www.cs.manchester.ac.uk/aboutus/news/2012/25-6-12_kasparov/](http://www.cs.manchester.ac.uk/aboutus/news/2012/25-6-12_kasparov/)

A plaque has been unveiled to commemorate Turing's life and work on the Coupland 1 Building. [http://www.bbc.co.uk/news/uk-england-manchester-18562541](http://www.bbc.co.uk/news/uk-england-manchester-18562541)

Academic promotions

I am delighted to announce that University Promotions Committee has approved the following promotions:

- Toby Howard: Reader
- Gavin Brown: Senior Lecturer
- John Latham: Senior Lecturer
- Bijan Parsia: Senior Lecturer
- Mikel Lujan: Senior Research Fellow

School survives Friday 22nd June

On Friday 22nd the School was kept busy with a University Open Day, the UG external exam board, an Industry Club – CDT meeting, an alumni/industry club/staff/student reception in Manchester Museum and Jack Copeland’s public lecture beginning the Turing Conference, all amongst this summer’s refurbishment work. All of these events ran without hitch, a great demonstration of the capabilities of the staff involved (pretty much all of the School). Thank you all, especially SSO, ACSO, the External Affairs Office, House Services and Environment, without whom none of this would have worked.

School Barbecue 6 July 12

15:00, 6th July, Quad and common room.

Food will be served but please bring your own drinks. Tickets will be allocated on the day to ensure that everyone gets some food before people go for seconds. Come along and enjoy the sunny Manchester weather!

Events


Tuesday 26th June, 5:00pm-6:30pm Theatre A, Roscoe Building

Abstract: Activities directed at "including" more people in the use of digital technology are predicated on the assumption that such inclusion is invariably a good thing. It appears so, when judged solely by immediate practical convenience. However, if we also judge in terms of human rights, whether digital inclusion is good or bad depends on what kind of digital world we are to be included in. If we wish to work towards digital inclusion as a goal, it behoves us to make sure it is the good kind.
IJCAR 2012 will be held in the School this week.

IJCAR is the premier international joint conference on all topics in automated reasoning. The IJCAR technical program will consist of presentations of high-quality original research papers, system descriptions, and invited talks.

IJCAR 2012 is a merger of leading events in automated reasoning:

CADE (International Conference on Automated Deduction)
FroCoS (International Symposium on Frontiers of Combining Systems)
FTP (International Workshop on First-order Theorem Proving)
TABLEAUX (International Conference on Automated Reasoning with Analytic Tableaux and Related Methods)

See [http://ijcar.cs.manchester.ac.uk/](http://ijcar.cs.manchester.ac.uk/)

**Information Management in the Cloud – Big Data Analytics Beyond Map/Reduce**

Volker Markl, Technische Universität Berlin (TU Berlin).
11:00, Atlas 1, Kilburn Building.

**Abstract:** The talk will present cloud information management and big data analytics, with a particular focus on our research in a massively parallel data processor in the Stratosphere project. After surveying big data analytics, with its challenges and opportunities we will present a new flavour of data processor that goes beyond the popular map/reduce paradigm. We propose a programming model based on second order functions that describe what we call parallelization contracts (PACTs). PACTs are a generalization of the map/reduce programming model, extending it with additional higher order functions and output contracts that give guarantees about the behaviour of a function. A PACT program is transformed into a data flow for a massively parallel execution engine, which executes its sequential building blocks in parallel and provides communication, synchronization and fault tolerance. The concept of PACTs allows the system to abstract parallelization from the specification of the data flow and thus enables several types of optimizations on the data flow. The system as a whole is as generic as map/reduce systems, but can provide higher performance through optimization and adaptation of the system to changes in the execution environment. Moreover, it enables the execution of tasks that traditional map/reduce systems cannot execute without mixing data flow program specification and parallelization, like joins, time-series analysis or data mining operations. We will present our research vision and research results that we have achieved during the last year. We will also highlight our research agenda for the upcoming year.

**Featured publications this week (by Robert Stevens)**

This is a new section in the weekly newsletter. This is a small step to help us all to know what research is happening in the School and what is being published. Please continue to add all of your new publications to eScholar, but also send ones that you wish to advertise in the newsletter to Robert.Stevens@manchester.ac.uk.

**Funding Opportunities**

School Research Office

There is information about support for grant writing and submission at