--- CALL FOR PAPERS ---

SICSA MULTICORE CHALLENGE

Programming Language Support for Multicore Parallelism Special Issue of Concurrency and Computation: Practice and Experience

The SICSA Multicore Challenge, which aims to assess current programming language support for multicore parallelism, has been running since 2010. The aim of the challenge is to compare and contrast different implementation techniques for harnessing multicore parallelism, across a range of programming languages and systems. So far, participants have contributed programming solutions to two specific parallel problems. Challenge Phase I concerned a text-file concordance generator. Phase II concerned a planetary n-body simulator. Precise specifications of both problems are given at: http://www.macs.hw.ac.uk/sicsawiki/index.php/MultiCoreChallenge

We now invite submissions to a special issue of the journal Concurrency and Computation: Practice and Experience. http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1532-0634

Submissions should describe a particular approach, or a set of related approaches, to solving one or both of the parallel challenges. Of particular interest are: (i) the program performance, (ii) performance portability, and (iii) the programmer productivity, of the methods and implementation techniques used to address each problem. A recommended paper structure is provided at http://www.macs.hw.ac.uk/sicsawiki/index.php/PaperTemplate

Although we anticipate that existing SICSA Multicore Challenge participants will submit papers, we also welcome papers from people, who have not been able to attend the workshops, or engage fully in the challenge activities to date. In particular, we encourage new contributors to upload information on their implementations onto the Wiki. All papers will be judged impartially on merit and relevance by a reviewing panel assembled for this special issue. Prior levels of participation will not impact the refereeing process.

Instructions for SICSA Multicore Challenge 2012 special issue

- The editors of the special issue are Hans-Wolfgang Loidl <H.W.Loidl@hw.ac.uk> and Jeremy Singer <jeremy.singer@glasgow.ac.uk>.

- Papers will be refereed by members of the reviewing panel shown below.

- Please submit your full paper to Manuscript Central http://mc.manuscriptcentral.com/cpe

- as "SICSA Multicore Challenge 2012 special issue".

- The submitted papers must be original work describing implementations of one or both SICSA Multicore Challenge problems. The work must not be published anywhere else nor under any simultaneous consideration in any other venue.

- There is a 30 page max length limit (12 point single space, inclusive of figures and tables).

- The notification will include reviewer comments from 3 expert referees in the area.

- Wiley has Latex templates at http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291532-0634/homepage/la_tex_class_file.htm and we anticipate that most authors will make use of these. Either Latex or Word will be accepted.

- Important dates:

  - Submission of full papers: February 6, 2012

  - Notification of acceptance: March 30, 2012.

  - Revised Camera-ready Papers: May 11, 2012.

  - Final Decisions: June 8, 2012.

  - Papers are expected to appear within 4 months of final acceptance.

REVIEWING PANEL

Hans-Wolfgang Loidl (co-chair, Heriot-Watt University)

Jeremy Singer (co-chair, University of Glasgow)

Greg Michaelson (Heriot-Watt University)

Paul Cockshott (University of Glasgow)

Kevin Hammond (St Andrews University)

Tim Harris (Microsoft Research)

Murray Cole (University of Edinburgh)