6th Conference on

Reversible Computation

July 10th - 11th, 2014, Kyoto, Japan

Program Chairs

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Ritsumeikan University

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Reversible computation has a growing number of promising application areas such as low power design, decoding, program debugging, testing, database recovery, discrete event simulation, reversible algorithms, reversible specification formalisms, reversible programming languages, process algebras, and the modeling of biochemical systems. Furthermore, reversible logic provides a basis for quantum computation with its applications, for example, in cryptography and in the development of more efficient algorithms. First reversible circuits and quantum circuits have been implemented recently and are seen as promising alternatives to CMOS technology.

The conference will bring together researchers from computer science, mathematics, and physics to discuss new developments and directions for future research in Reversible Computation. This particularly includes applications of reversibility in quantum computation. Research papers, tutorials, tool demonstrations, and work-in-progress reports are within the scope of the conference. Invited talks by leading international experts will complete the program.

Contributions on the following topics in Reversible Computation are welcome:

- Architectures
- Algorithms
- Circuit Design
- Debugging
- Fault Tolerance and Error Correction
- Hardware
- Information Theory
- Physical Realizations
- Programming Languages
- Quantum Computation
- Software
- Synthesis
- Theoretical Results
- Testing
- Verification

Interested researchers are invited to submit full research papers (12 pages maximum) as well as tutorial, work-in-progress, or demonstration papers (6 pages maximum). All accepted research papers will be published in Springer's Lecture Notes on Computer Science (LNCS). For the details, please visit http://www.reversible-computation.org/2014/cms/index.php?paper_submission.

The 6th Conference on Reversible Computation will take place on July 10th and 11th, 2014 in Kyoto, Japan and is organized by both, the Ritsumeikan University and the Hokkaido University. Previous editions of this event took place as workshop in York (2009), Bremen (2010), Gent (2011), and Copenhagen (2012) as well as conference in Victoria, Canada (2013).

Important Dates (tentative):

- ~~Abstract Submission: Sun February 16th, 2014~~ (closed)
- ~~Submission Deadline: Sun February 23th, 2014~~ (closed)
- Notification to Authors: Sun March 30th, 2014
- Final Version: Sun April 20th, 2014
- Conference: Thu-Fri, July 10th and 11th, 2014

Further information about the conference:

http://www.reversible-computation.org
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