

5th Conference on

Reversible Computation

July 4th - 5th, 2013, Victoria, Canada



Program Chairs

D. Michael Miller
University of Victoria

Gerhard W. Dueck
University of New Brunswick

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.

1st Announcement



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 papers will be published at the conference in an official publication venue (probably LNCS).

The 5th Conference on Reversible Computation will take place on July 4th and 5th, 2013 in Victoria, Canada and is organized by the University of Victoria. Previous editions of this event took place as workshop in York (2009), Bremen (2010), Gent (2011), and Copenhagen (2012).

Important Dates (tentative):

- Abstract Submission: Sun, February 10th, 2013
- Submission Deadline: Sun, February 17th, 2013
- Notification to Authors: Sun, March 31st, 2013
- Final Version: Sun, April 21st, 2013
- Conference: Thu-Fri, July 4th and 5th, 2013

Further information about the conference:

<http://www.reversible-computation.org>
info@reversible-computation.org

Organizer

D. Michael Miller
Department of Computer Science
University of Victoria
PO Box 3066 STN CSC
Victoria, BC
CANADA V8W 3P6



University
of Victoria