Topics

- Design and analysis of parallel algorithms for computer algebra
- Practical parallel implementation of symbolic or symbolic-numeric algorithms
- High-performance software tools and libraries for computer algebra
- Applications of high-performance computer algebra
- Distributed data-structures for computer algebra
- Hardware acceleration technologies (multi-core, GPUs, FPGAs) applied to computer algebra
- Cache complexity and cache-oblivious algorithms for computer algebra
- Compile-time and run-time techniques for automating optimization and platform adaptation of computer algebra algorithms

Invited Speakers

Christian Bertin (STMicroelectronics)
& Claude-Pierre Jeannerod, (INRIA), France.
Techniques and tools for implementing IEEE 754 floating-point arithmetic on VLIW integer processors.

Erich L. Kaltofen, North Carolina State University, USA.
15 years after DSC and WLSS2: what parallel computations I do today.

Stephen T. Lewin-Berlin, Quanta Cambridge Research, Inc., USA
Exploiting Multicore Systems with Cilk.

Tutorials

Jeremy Johnson, Drexel University, USA.
Automatic Performance Tuning.

Daniel Kunkle, Northeastern University, USA.
Roomy: A System for Space Limited Computations.

Conference Organization

General Chairs: Marc Moreno Maza and Jean-Louis Roch
Local arrangements and Programming Contest Chairs:
Jean-Guillaume Dumas, Thierry Gautier, and Clément Pernet
Administration: Danièle Herzog, Christian Séguy, Ahlem Zammit-Boubaker
Publicity Chair: Daniel Cordeiro

Program Committee

- Daniel Augot
- Jean-Claude Bajard
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- Matteo Frigo
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- Pascal Giorgi
- Stef Graillat
- Jeremy Johnson
- Erich Kaltofen
- Herbert Kuchen
- Philippe Langlois
- Anton Leykin
- Gennadi Malaschonok
- Michael Monagan
- Marc Moreno Maza
- Winfried Neun
- Clément Perret
- Nicolas Pinto
- Manuel Prieto-Matias
- Markus Pueschel
- Nathalie Revol
- Jean-Louis Roch
- David Saunders
- Eric Schost
- Wolfgang Schreiner
- Arne Storjohann
- Sivan Toledo
- Gilles Villard
- Yuzhen Xie
- Kazuhiro Yokoyama