

The 20th Reconfigurable Architectures Work Shop

RAW 2013

May 20-21, 2013, Boston, USA



The 20th Reconfigurable Architectures Workshop (RAW 2013) will be held in Boston, USA in May 2013. RAW 2013 is associated with the [27th Annual International Parallel & Distributed Processing Symposium \(IPDPS 2012\)](#) and is sponsored by the [IEEE Computer Society's Technical Committee on Parallel Processing](#). The workshop is one of the major meetings for researchers to present ideas, results, and on-going research on both theoretical and practical advances in Reconfigurable Computing.

A reconfigurable computing environment is characterized by the ability of underlying hardware architectures or devices to rapidly alter (often on the fly) the functionalities of their components and the interconnection between them to suit the problem at hand. The area has a rich theoretical tradition and wide practical applicability. There are several commercially available reconfigurable platforms (FPGAs and coarse-grained devices) and many modern applications (including embedded systems and HPC) use reconfigurable subsystems. An appropriate mix of theoretical foundations and practical considerations, including algorithms architectures, applications, technologies and tools, is essential to fully exploit the possibilities offered by reconfigurable computing. The Reconfigurable Architectures Workshop aims to provide a forum for creative and productive interaction for researchers and practitioners in the area.

Topics of Interest

Authors are invited to submit manuscripts of original unpublished research in all areas of reconfigurable systems, including architectures, algorithms, applications, software and cross-cutting areas. Topics of interest include, but are not limited to:

| Architectures & Algorithms | Reconfigurable Systems & Applications | Software & Tools |
|---|---|---|
| <ul style="list-style-type: none">Theoretical Interconnect and Computation ModelsAlgorithmic Techniques and MappingRun-Time Reconfiguration Models and ArchitecturesEmerging Technologies (optical models, 3D Interconnects, devices)Bounds and Complexity IssuesAnalog Arrays | <ul style="list-style-type: none">Reconfigurable accelerators (HPC, Bioinformatics, Multicore environments)Embedded systems and Domain-Specific solutions (Digital Media, Gaming, Automotive applications)Distributed Systems & NetworksWireless and Mobile SystemsEmerging applications (Organic Computing, Biology-Inspired Solutions)Critical issues (Security, Energy efficiency, Fault-Tolerance) | <ul style="list-style-type: none">High-Level Design Methods (Hardware/Software co-design, Compilers)System Support (Soft processor programming)Runtime SupportReconfiguration Techniques (reusable artifacts)Simulations and Prototyping (performance analysis, verification tools) |

Submission Guidelines:

All manuscripts will be reviewed by at least three members of the program committee. Submissions should be a complete manuscript (not to exceed 8 pages of single spaced text, including figures and tables) or, in special cases, may be a summary of relevant work. Submissions should be in pdf-format (preferred), or alternatively in Postscript (level 2) format. The Links to the submission site and template for paper preparation will be posted at www.ece.lsu.edu/vaidy/raw.

IEEE CS Press will publish the IPDPS symposium and workshop abstracts as a printed volume. The complete symposium and workshop proceedings will also be published by IEEE CS Press as a CD-ROM disk.

Important Dates:

Submission deadline
Decision notification
Camera-Ready papers due

November 30, 2012
January 5, 2013
February 1, 2013

Organization:

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| Workshop Chairs: | Jürgen Becker, Karlsruhe Institute of Technology, Germany Ramachandran Vaidyanathan, Louisiana State University, USA | becker@kit.edu vaidy@lsu.edu |
| Program Chair: | Peter Athanas, Virginia Tech., USA | athanas@vt.edu |
| Program Vice-Chairs: | Architectures and Algorithms: Marco Santambrogio, Politecnico di Milano, Italy Reconfigurable Systems & Applications: René Cumplido, INAOE, México Software & Tools: Oliver Sander, Karlsruhe Institute of Technology, Germany | marco.santambrogio@polimi.it rcumplido@inaoep.mx Oliver.Sander@itiv.uni-karlsruhe.de |
| Steering Chair: | Viktor K. Prasanna, University of Southern California, USA | prasanna@usc.edu |
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| Europe, Asia: | Reiner Hartenstein, Kaiserslautern University of Technology, Germany Pascal Benoit, LIRMM, Montpellier, France | |

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