

19th Reconfigurable Architectures Workshop  
May 21-22, 2012 Shanghai, China  
[www.ece.lsu.edu/vaidy/raw](http://www.ece.lsu.edu/vaidy/raw)



The 19th Reconfigurable Architectures Workshop (RAW 2012) will be held in Shanghai, China in May 2012. RAW 2012 is associated with the [26th 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Authors are invited to submit manuscripts of original unpublished research in all areas of reconfigurable systems, including architectures, algorithms, applications, software and cross-cutting areas.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

- Theoretical Interconnect and Computation Models
- Algorithmic Techniques and Mapping
- Run-Time Reconfiguration Models and Architectures
- Emerging Technologies (optical models, 3D Interconnects, devices)
- Bounds and Complexity Issues
- Analog Arrays

### Reconfigurable Systems & Applications

- Reconfigurable accelerators (HPC, B, Multicore environments)
- Embedded systems and Domain-Specific solutions (Digital Media, Gaming, Automotive applications)
- Distributed Systems & Networks
- Wireless and Mobile Systems
- Emerging applications (Organic Computing, Biology-Inspired Solutions)
- Critical issues (Security, Energy efficiency, Fault-Tolerance)

### Software & Tools

- High-Level Design Methods (Hardware/Software co-design, Compilers)
- System Support (Soft processor programming)
- Runtime Support
- Reconfiguration Techniques (reusable artifacts)
- Simulations and Prototyping (performance analysis, verification tool)

## 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. [Click here](#) to submit your paper.

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.

Selected best papers of RAW 2012 will be invited to submit extended versions to a special issue of the [ACM Transactions on Reconfigurable Technology and Systems \(TRET\)](#)

**Important Dates:** Submission deadline December 20, 2011  
Notification of acceptance February 1, 2012  
Camera-ready papers due: February 21, 2012

## Organization:

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