



March 26 – 27, 2007  
Long Beach, California, USA  
<http://www.ece.lsu.edu/vaidy/raw/>

### Call for Papers

Submission Deadline: October 15, 2006



The 14<sup>th</sup> Reconfigurable Architectures Workshop (RAW 2007) will be held in Long Beach in March 2007. RAW 2007 is associated with the 21<sup>st</sup> Annual International Parallel & Distributed Processing Symposium (IPDPS 2007) and is sponsored by the IEEE Computers Society's Technical Committee on Parallel Processing. RAW 2007 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.

#### Run-Time Reconfiguration & Adaptive Computing: Architectures, Algorithms, Technologies

Run-Time and Dynamic Reconfiguration are characterized by the ability of underlying hardware architectures or devices to rapidly alter (on the fly) the functionalities of its components and the interconnection between them to suit the problem. Key to this ability is reconfiguration handling and speed. Though theoretical models and algorithms for them have established reconfiguration as a very powerful computing paradigm, practical considerations make these models difficult to realize. On the other hand, commercially available devices (such as FPGAs and new coarse-/multi-grain devices) appear to have more room for exploiting run-time reconfiguration (RTR). An appropriate mix of the theoretical foundations of dynamic reconfiguration, and practical considerations, including architectures, technologies and tools supporting RTR is essential to fully reveal and exploit the possibilities created by this powerful computing paradigm. RAW 2007 aims to provide a forum for creative and productive interaction between all these disciplines.

#### Special Focus – Coarse Grain Reconfigurable

Reconfigurable Architectures Workshop 2007 wants to emphasize the importance of coarse grain related topics including architectures, models, applications, algorithms and tools. Therefore we highly encourage researchers to present their novel approaches. Accepted papers will be presented in special sessions.

#### Topics of Interest

Authors are invited to submit manuscripts of original unpublished research in all areas of dynamic and run-time reconfiguration (foundations, algorithms, hardware architectures, devices, systems-on-chip (SoC), technologies, software tools, and applications). The topics of interest include, but are not limited to:

##### Models & Architectures

- Theoretical Interconnect and Computation Models
- RTR Models and Systems
- RTR Hardware Architectures
- Optical Interconnect Models
- Simulation and Prototyping
- Bounds and Complexity Issues

##### Algorithms & Applications

- Algorithmic Techniques
- Mapping Parallel Algorithms
- Distributed Systems & Networks
- Fault Tolerance Issues
- Wireless and Mobile Systems
- Automotive Applications
- Infotainment & Multimedia
- Biology Inspired Applications

##### Design, Technologies & Tools

- Configurable Systems-on-Chip
- Energy Efficiency Issues
- Devices and Circuits
- Reconfiguration Techniques
- High Level Design Methods
- System Support
- Adaptive Runtime Systems
- Organic Computing

## Submission Guidelines:

Authors should submit and register their paper through our web-interface at: <http://raw.itiv.uni-karlsruhe.de> by October 15, 2006. (The web interface will be accessible after Sept. 1st, 2006)

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. Authors should make sure that the submission can be viewed using ghostscript and will print on standard letter size paper (8.5" x 11").

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:

Manuscript due: October 15, 2006  
Notification of acceptance: November 15, 2006

## Organization:

**Workshop Chair:** Serge Vernalde, IMEC, Belgium  
([vernalde@imec.be](mailto:vernalde@imec.be))

**Program Chair:** Jürgen Becker, Universität Karlsruhe (TH), Germany  
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**Publicity Chair (Europe, Asia):** Reiner Hartenstein, Kaiserslautern University of Technology, Germany  
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## Program Committee:

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