

**ASAP 2004 CALL FOR PAPERS**  
**IEEE 15th International Conference on**  
**Application-specific Systems, Architectures and Processors**  
**Galveston, Texas, September 27-29, 2004**



**Key Dates:**

April 23, 2004: Deadline for submission of papers (extended from April 16)  
May 31, 2004: Acceptance notification  
June 25, 2004: Camera-ready papers due  
September 27-29 2004: Conference

**Topics:**

The conference will cover the theory and practice of application-specific systems, architectures and processors. Areas for application-specific computing are many and varied. Some sample areas include information systems, signal and image processing, multimedia systems, high-speed networks, compression, graphics, and cryptography.

Aspects of application-specific computing that are of interest include, but are not limited to:

- **Application-specific systems:** network computing, special-purpose systems, performance evaluation, design languages, compilers, operating systems, nanocomputing systems and applications, hardware/software integration, rapid-prototyping.
- **Application-specific architectures:** special-purpose designs, design methodology, CAD tools, fault tolerance, specifications and interfaces, networks-on-a-chip, hardware/software codesign, processor arrays, SoC, superscalar, multithreaded, VLIW, and EPIC architectures.
- **Application-specific processors:** digital signal processing, computer arithmetic, configurable/custom computing, implementation methodologies, new technologies, fine-grain parallelism, low-power designs, asynchronous hardware.

An additional focus in ASAP 2004 will be nanocomputing and massively parallel application-specific systems. With current trends in VLSI fabrication technology, it will be important to develop application-specific systems and associated compilation techniques capable of harnessing the massive parallelism provided by nanotechnology. ASAP 2004 solicits papers on theoretical and practical advances on these problems.

The conference will feature a keynote speech, paper presentations, and recreational activities. The proceedings will be published by IEEE Computer Society Press.

**Information for authors:**

Your paper should be a maximum of 5000 words. A PDF version of the complete paper should be submitted via the conference web page at <http://www.ece.rice.edu/asap2004>. For further information about the conference and paper formatting instructions, please see the conference web page.

**Conference Organizers**

**General Chairs:** Joe Cavallaro, Rice University  
Lothar Thiele, Swiss Federal Inst. of Tech. Zurich

**Program Chairs:** Sanjay Rajopadhye, Colorado State University  
Tobias Noll, RWTH Aachen University

**Steering Committee:** Jose Fortes, University of Florida  
S-Y Kung, Princeton University  
Michael Schulte, University of Wisconsin  
Earl Swartzlander, University of Texas

**Keynote Speaker:** Phil Kuekes, HP Labs

**Program Committee:** Mark Arnold, Lehigh University; Eduard Ayguade, Polytechnic University of Catalonia; Magdy Bayoumi, University of Louisiana at Lafayette; Shuvra Bhattacharyya, University of Maryland; Neil Burgess, Cardiff University; Peter Cappello, University of California at Santa Barbara; Liang-Gee Chen, National Taiwan University; Alain Darte, Ecole Normale Supérieure, Lyon; Ed Deprettere, Leiden University; Gerhard Fettweis, Dresden University of Technology; Graham Jullien, University of Calgary; Israel Koren, University of Massachusetts at Amherst; Tomas Lang, University of California at Irvine; Ruby Lee, Princeton University; Wayne Luk, Imperial College; Neeraj Magotra, Texas Instruments; Elias Manolakos, Northeastern University; John McCanny, Queen's University of Belfast; Jean-Michel Muller, Ecole Normale Supérieure de Lyon; Keshab Parhi, University of Minnesota at Twin Cities; Peter Pirsch, University of Hannover; Gang Qu, University of Maryland; Patrice Quinton, IRISA, Campus de Beaulieu; Sriram Sundararajan, Texas Instruments; Juergen Teich, Erlangen University; Alexander Tenca, Oregon State University; Stamatis Vassiliadis, Delft University of Technology; Ingrid Verbauwhede, University of California at Los Angeles; Doran Wilde, Brigham Young University; Roger Woods, Queen's University of Belfast; Pen-Chung Yew, University of Minnesota at Twin Cities