

Call For Papers

Workshop on Application Specific Processors (WASP'03)

To be held in conjunction with the 36th International Symposium on Microarchitecture (MICRO-36)

December 2nd, 2003

Westin Horton Plaza, San Diego, California

PROGRAM CHAIR

Alex Orailoglu, *UC San Diego*

SPECIAL SESSIONS CHAIR

Faraydon Karim, *ST Micro*

SPECIAL ISSUE CHAIR

Alex Veidenbaum, *UC Irvine*

E-MEDIA CHAIR

Ismet Bayraktaroglu, *Sun*

PUBLICATION CHAIR

Peter Petrov, *UC San Diego*

PUBLICITY CHAIR

Suleyman Sair, *NCSU*

PROGRAM COMMITTEE

Siamak Arya, *Telairity Inc.*

Kiyoung Choi, *Seoul National U*

Apostolos Dollas, *Tech U Crete*

Nikil Dutt, *UC Irvine*

Kemal Ebcioglu, *IBM*

Carl Ebeling, *U Washington*

Krisztian Flautner, *ARM*

Paolo Ienne, *EPFL*

Fadi Kurdahi, *UC Irvine*

Reiner Leupers, *Aachen U*

Scott Mahlke, *U Michigan*

Walid Najjar, *UC Riverside*

Vojin G. Oklobdzija, *UC Davis*

Yale Patt, *U Texas*

C. Polychronopoulos, *UIUC*

Haldun Hadimioglu, *Polytechnic U*

Mateo Valero, *TU Catalonia*

Stamatis Vassiliadis, *Delft U*

Hiroto Yasuura, *Kyushu U*

Amr Zaky, *Qualcomm*

The dramatic embedded processor volumes and the associated market segments force a reevaluation of the best way to satisfy the possibly conflicting demands placed on processor designs. Domain-specific embedded processors, such as network, automotive, cellular and others, present interesting architectural refinements, albeit at the cost of splintering the embedded processor market. Reprogrammable and/or reconfigurable embedded processors provide an alternative approach, capable of delivering single, fixed-silicon architectures, thus amortizing design and manufacturing costs across large volumes, yet necessitating an answer to the challenge of effective customization of embedded processors.

The workshop papers explore (micro)architectural design approaches and trade-offs and compiler technologies, for both domain-specific and customizable embedded processors. The workshop aims at generating a forum wherein the various approaches to address the twin challenges of cost amortization over large volumes while delivering optimal cost, performance, and power characteristics for a wide segment of embedded processor market niches will be explored and compared. *WASP* explores emerging trends and novel concepts in application-specific processors. Major topics include, but are not limited to:

- Domain-specific processors (Network, multimedia, etc.)
- Application-specific hardware accelerators
- Microarchitectural customization techniques
- (Re)configurable processor architectures
- Dynamically reconfigurable processors (Microarchitectural, Coarse-grained, FPGA, etc.)
- Application-specific processors in System-on-a-chip (SOC)
- Application-specific customizations for low-power
- Compiler techniques for processor customizations
- OS and Middleware support for application-specific processors

The Program Committee invites authors to submit papers up to 8 pages in length, describing original, unpublished recent work. Clearly describe the nature of the work, explain its significance, highlight novel features, and describe its current status. On the title page, please indicate: title, name and affiliations of all authors, and the topic category. Also identify a contact author and provide complete mailing address, phone number, fax number and an e-mail address. It is expected that **selected papers will be published in a special issue of *IEEE MICRO Magazine***. Please indicate in the cover page if you would not like your paper to be considered for possible publication in *MICRO*.

The submission of a paper proposal will be considered evidence that upon acceptance, the author(s) will present their paper at the workshop. Final versions of accepted papers will be included in the *Workshop of Application Specific Processors Digest*.

Important deadlines:

Abstract due: **September 26, 2003;**

Submission due: **October 3, 2003;**

Acceptance notification: **October 26, 2003;**

Final version due: **November 10, 2003**

For up-to-date workshop information: <http://dna.ucsd.edu/wasp2>