

Call for Papers

5th Workshop on Application Specific Processors (WASP'07)

To be held in conjunction with the
Embedded Systems Week 2007 (CODES+ISSS, EMSOFT, and CASES)

4th October 2007

Salzburg, Austria

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Dramatic embedded processor volumes and 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 challenges and solutions will be explored, discussed and compared. 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 customization
- 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The Program Committee invites authors to submit papers up to 8 pages in length, describing original, unpublished recent work.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. Electronic submission through the workshop website is required.

The submission of a paper proposal will be considered evidence that, upon acceptance, the author(s) will present their paper at the workshop.

Authors of the best papers will be invited by the Program Chairs to resubmit extended versions of their work for publication in a special section on *Application Specific Processors* of the *IEEE Transactions on VLSI Systems* (scheduled for the 3rd Quarter 2008). Additionally, all papers accepted to WASP'07 will have the opportunity to be web-published on a dedicated website.

Important deadlines

Abstracts: **2nd July 2007** Submissions: **9th July 2007**
Acceptance: **27th August 2007** Final versions: **10th September 2007**

<http://dogbert.eng.umd.edu/wasp07/>