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High Performance Embedded Computing

23-25 September 2008 Massachusetts Institute of Technology **Lincoln Laboratory**

Call for Presentations

The High Performance Embedded Computing (HPEC) technical committee announces the Twelfth Annual HPEC workshop to be held 23–25 September 2008 at MIT Lincoln Laboratory in Lexington, MA. The workshop will give U.S. government-funded researchers from academia, industry and government, working in this important area, an opportunity to discuss techniques, approaches and ongoing developments with relevance to real-time embedded computing and related military applications. During this twelfth year, the HPEC 2008 workshop will have as its theme "Multicore open systems architectures and their impact on DoD HPEC systems." The technical committee seeks new presentations that clearly describe advances in high performance embedded computing technologies, emphasizing one or more of the following topics:

- Advanced Multicore Software Technology
- Automated Design Tools
- · Mapping and Scheduling of Parallel and Real-Time Applications
- Case Studies and Benchmarking of HPEC Applications
- · Signal Processing Techniques
- Computing Technologies for Challenging Form Factors
- ASIC and FPGA Advances
- Parallel and Open System Architectures
- · Networking and Interconnects
- Fault-Tolerant Computing
- · Digital Front-Ends
- · Advanced Codesign Techniques
- Technology Trends

All submittals will be competitively reviewed and judged on their technical merit, novelty and relevance to the technical program. Preference will be given to papers with strong, quantitative results. The workshop will have both Open Sessions and Unclassified/U.S. Only sessions, as well as poster presentations. Presenters with significant hardware demonstrations are encouraged to apply to the poster sessions. Since the presentations themselves will constitute the published proceedings, speakers are requested to prepare charts of the highest quality. Electronic copies of the charts presented at the workshop will be included in the workshop proceedings.

Authors are invited to submit two-page extended abstracts via our web site:

http://www.II.mit.edu/HPEC

For further details about the workshop, please contact

HPEC 08 Workshop Office

Joan Napoli, Supervisor

Lori Tsoulas, Workshop Administrator

Phone: (781) 981-4842 Email: hpec@ll.mit.edu http://www.ll.mit.edu/HPEC

Important Dates: Abstract submission deadline

15 May 2008 Notification of acceptances 25 June 2008











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Figure 1: Conceptual diagram of system.

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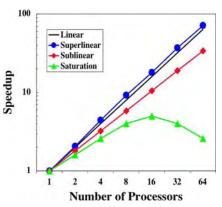


Figure 2: Performance results.

References

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- [1] I. Foster and C. Kesselman, *The Grid: Blueprint for a New Computing Infrastructure*, Second Edition, Morgan-Kaufman, 2004.
- [2] A. S. Grimshaw and W. A. Wulf, "The Legion vision of a worldwide virtual computer," *Communications of the ACM*, Vol. 40, No. 1, Jan. 1997.

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