

**The 18th International Symposium on
High Performance Computer Architecture (HPCA-18)**

February 25-29, 2012, New Orleans, Louisiana

**Call For Papers
Industry Session in HPCA-18**

Session Chair:

- Aamer Jaleel (Intel)

Organizing Committee:

- Brad Beckmann (AMD)
- Michael Gschwind (IBM)
- Aamer Jaleel (Intel)
- Naveen Muralimanohar (HP Labs)
- Emre Ozer (ARM)
- Moinuddin Qureshi (GA Tech)

The 18th International Symposium on High-Performance Computer Architecture (HPCA-18) will include an industrial session on the architecture of future platforms technologies. The objective of this session is to provide a unique forum for the industry leaders to present their perspective on technical challenges facing future platforms and discuss potential solutions. The discussion in this forum is expected to educate the wider computer architecture community on the challenges facing the industry and to encourage them to investigate solutions. The session will include a small number of papers (approximately 3-5) selected based on depth and relevance to the HPCA audience.

Architects, designers and developers involved in some aspect of industrial computer systems design and development are invited to submit a paper describing new challenges, issues, and opportunities in the next-generation computer systems. Topics of interest include, but are not limited to:

- * Heterogeneous Computing: SoCs, CPU+GPU, Hardware Accelerators, etc.
- * Parallelism from Instruction Level to Chip level
- * Benchmarking including new application domains
- * Circuit technology: noise, process variation, and memory scaling
- * Issues with deeply scaled CMOS
- * Design complexity and verification
- * Power, energy, and temperature
- * Systems reliability
- * Microarchitecture
- * Memory and Storage systems
- * Interconnect and network interfaces
- * Innovative architectural paradigms
- * Innovative hardware/software trade-offs
- * Advanced compilation techniques
- * Case Studies and Performance Evaluation of Real Machines
- * New computing and usage paradigms in the client/server model

Authors are requested to submit their papers for consideration to Aamer Jaleel (ajaleel@gmail.com) with subject "HPCA-18 INDUSTRY" no later than **11:59pm EST, October 21st, 2011**. Submissions should be in PDF format and should not exceed 10 pages (around 3,000 words). Authors will be notified about the decision by November 21st, 2011. Accepted papers will be printed in the HPCA Proceedings and the authors will present their work at the conference. Presentations will be posted on the conference website.