



### The 45th Annual IEEE/ACM International Symposium on Microarchitecture, 2012

Co-sponsored by IEEE-CS TC-uARCH  and ACM SIGMICRO 

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The International Symposium on Microarchitecture (MICRO) is the premier forum for presentation and discussion of *new ideas* in microarchitecture, compilers, hardware/software interfaces, and design of advanced computing and communication systems. The goal of MICRO is to bring together researchers in the fields of microarchitecture, compilers, and systems for technical exchange. The MICRO community has enjoyed having close interaction between academic researchers and industrial designers – we aim to continue and strengthen this longstanding tradition at the 45<sup>th</sup> MICRO in Vancouver.

We invite original paper submissions related to but not limited to the following:

- Hardware, software, and hybrid techniques for improving system performance, energy-efficiency, cost, complexity, predictability, quality of service, reliability, dependability, security, scalability, programmer productivity, etc.
- Processor, memory, storage, interconnect designs
- Architectures for instruction-level, thread-level, and memory-level parallelism: superscalar, VLIW, data-parallel, multithreaded, multicore, manycore, etc.
- Compiler and microarchitectural techniques for parallelism (ILP, TLP, MLP)
- Low-power, high-performance, and cost/complexity-efficient architectures
- Dynamic optimization, emulation, and object code translation
- Architectures for emerging platforms, including smartphones, tablets, cloud/datacenter, etc.
- Architectures and compilers for embedded processors, DSPs, GPUs, ASIPs (network processors, multimedia, wireless, etc.)
- Advanced software/hardware speculation and prediction schemes
- Microarchitecture techniques to better support system software, programming languages, programmability, and compilation
- Microarchitecture modeling and simulation methodology
- Insightful experimental and comparative evaluation and analysis of existing microarchitectures, hardware/software mechanisms and workloads

#### Important dates:

Abstracts due : **June 1<sup>st</sup>, 2012 at 11:59pm EST**  
 Papers due : **June 8<sup>th</sup>, 2012 at 11:59pm EST**  
 Rebuttal period : **August 12<sup>th</sup>-15<sup>th</sup>, 2012**  
 Notifications : **September 1<sup>st</sup>, 2012**

Submissions should follow the guidelines and formatting rules specified on the conference website. Papers that violate these guidelines and rules may be returned to author(s) without review.