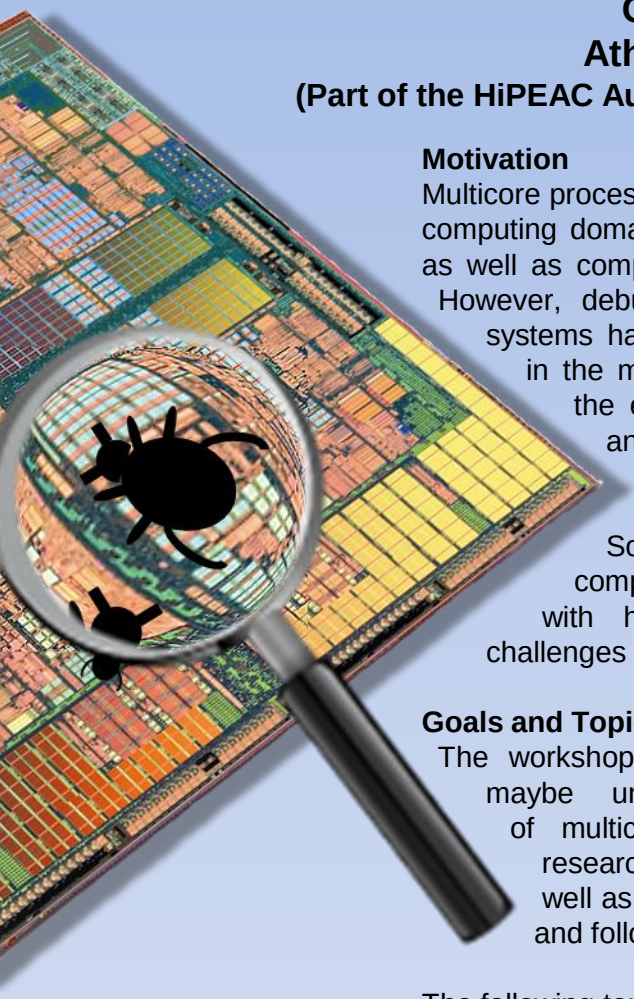
Call for Participation

2nd International Workshop on Multicore Application Debugging MAD 2014

Oct 8, 2014
Athens, Greece
(Part of the HiPEAC Autumn Computing Systems Week)



Motivation

Multicore processors and systems-on-chip have become predominant in all computing domains. Novel architectures, programming models and tools as well as compilers are well addressed both in research and industry. However, debugging, diagnosis, and validation of software/hardware systems have not yet received the corresponding level of attention in the multicore age, and still seem to be an afterthought. With the ever increasing complexity and multicore-specific effects and bugs, classical debug approaches like breakpointing and tracing have reached their limits. System developers face limited observability within SoC platforms, platform heterogeneity, and skyrocketing complexity of software and upcoming manycore systems with hundreds of integrated processing elements. These challenges demand for radically new debug approaches

Goals and Topics

The workshop is aimed at discussing upcoming issues and novel, maybe unconventional approaches related to all aspects of multicore application debugging. Position statements and research presentations by experts from academia and industry as well as a panel will provide the background for fruitful discussions and follow-up activities in the topic.

The following topics are of particular interest:

- Debugging of overall system including low level and application software as well as hardware to meet functional and non-functional requirements
- Debugging multicore/manycore-specific problems (e.g., concurrency, races)
- Reduction of debug complexity by e.g. increasing software abstraction or incremental software development
- Novel, scalable debugging tools and methodologies for multicores/manycores
- Hardware support for software debugging
- Debug for certification
- Debugging software for timing errors
- Debugging model-based software

The workshop is planned for Wednesday Oct 8, from 9:00 to 17:30. Participation will be free of charge.

Workshop organizers:

Chairs
Rainer Leupers
(RWTH Aachen)
Andreas Herkersdorf
(TU Munich)

Management
Stefan Wallentowitz and
Philipp Wagner
(TU Munich)
Luis Gabriel Murillo
(RWTH Aachen)

For questions and registrations please contact: mad-workshop@lis.ei.tum.de