Call for papers

9th International Workshop on
Algorithms, Models and Tools
for Parallel Computing on Heterogeneous Platforms

HeteroPar'2011

August 29, 2011, Bordeaux, France
held in conjunction with EuroPar 2011
Homepage: http://icl.eecs.utk.edu/heteropar2011/
Submissions: https://www.easychair.org/conferences/?conf=heteropar11

IMPORTANT DATES

Submission of manuscripts	June 20, 2011
Notification of acceptance	July 18, 2011
Deadline for final version	July 29, 2011
Workshop	August 29, 2011

STEERING COMMITTEE

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WORKSHOP THEME

Heterogeneity is emerging as one of the most profound and challenging characteristics of today's parallel environments. From the macro level, where networks of distributed computers, composed by diverse node architectures, are interconnected with potentially heterogeneous networks, to the micro level, where deeper memory hierarchies and various accelerator architectures are increasingly common, the impact of heterogeneity on all computing tasks is increasing rapidly. Traditional parallel algorithms, programming environments and tools, designed for legacy homogeneous multiprocessors, can at best achieve on a small fraction of the efficiency and potential performance we should expect from parallel computing in tomorrow's highly diversified and mixed environments. New ideas, innovative algorithms, and specialized programming environments and tools are needed to efficiently use these new and multifarious parallel architectures. The workshop is intended to be a forum for researchers working on algorithms, programming languages, tools, and theoretical models aimed at efficiently solving problems on heterogeneous networks.

WORKSHOP SCOPE

The topics to be covered include but are not limited to:
- Heterogeneous parallel programming paradigms and models;
- Performance models and their integration into the design of efficient parallel algorithms for heterogeneous platforms;
- Parallel algorithms for heterogeneous or hierarchical systems, including manycores and hardware accelerators (FPGAs, GPUs, etc.);
- Parallel algorithms for efficient problem solving on heterogeneous platforms (numerical linear algebra, nonlinear systems, fast transforms, computational biology, data mining, multimedia, etc.);
- Software engineering for heterogeneous parallel systems;
- Applications on heterogeneous platforms;
- Integration of parallel and distributed computing on heterogeneous platforms;
- Experience of porting parallel software from supercomputers to heterogeneous platforms;
- Fault tolerance of parallel computations on heterogeneous platforms;
- Algorithms, models and tools for grid, desktop grid, cloud, and green computing.

SUBMISSION GUIDELINES

Authors are encouraged to submit original, unpublished research or overviews on Algorithms, Models and Tools for Parallel Computing on Heterogeneous Platforms. Manuscripts should be limited to 10 pages in Springer LNCS style sheet and submitted through the EasyChair Conference System:
    https://www.easychair.org/conferences/?conf=heteropar11.

PROCEEDINGS

Accepted papers that are presented at the workshop will be published in revised form in a special Euro-Par Workshop Volume in the Lecture Notes in Computer Science (LNCS) series after the Euro-Par conference.