



Vienna, Austria

Call for Papers  
The 13th International Workshop on Algorithms, Models, and Tools for  
Parallel Computing on Heterogeneous Platforms

## HeteroPar 2015

August 24-25, 2015

<http://heteropar2015.ewi.tudelft.nl/>

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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, will at best achieve a small fraction of the efficiency and the potential performance that 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.

HeteroPar 2015 is intended to be a forum for researchers working on algorithms, programming languages, tools, and theoretical models aimed at efficiently solving problems on heterogeneous platforms.

### WORKSHOP SCOPE

Topics of interest include, but are not limited to:

- Heterogeneous parallel programming paradigms and models;
- Languages, libraries, and interfaces for different heterogeneous parallel programming models;
- Performance models and their integration into the design of efficient parallel algorithms for heterogeneous platforms;
- Parallel algorithms for heterogeneous and/or hierarchical systems, including manycores and hardware accelerators (FPGAs, GPUs, etc.);
- 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 and new application domains of 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.

### ARTICLE 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 12 pages in [Springer LNCS stylesheet](#) and submitted through the [EasyChair Conference System](#). 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. Approval for a special issue with selected and revised articles from the workshop, to be published in the journal *Concurrency and Computation: Practice and Experience*, is pending.

The submission link for papers (for all EuroPar 2015 workshops) is  
<https://www.easychair.org/conferences/?conf=europar2015ws>

### IMPORTANT DATES (ANYWHERE ON EARTH)

Papers due – June 2, 2015                      Camera-ready, conference – July 25  
Author notification - Jun 30, 2015              Camera-ready, LNCS – September 25