



# PARALLEL COMPUTING 2013 (*ParCo2013*)

10 – 13 September 2013  
Munich, Germany

## ANNOUNCEMENT & CALL FOR PAPERS

Parallel computing, for many years the enabling technology of high-end machines, is now the key for the efficient use of any kind of computer architecture, from embedded and personal up to exascale systems.

*ParCo2013* continues the tradition of the international conferences on parallel computing started in Berlin, Germany, in 1983. This makes ParCo one of the longest running international conferences on parallel computing. Over the years, the conference established itself as the foremost platform for exchanging know-how on the newest parallel computing strategies, technologies, methods, and tools.

The high scientific standard of the conference presentations and the refereed proceedings have become the hall-mark of *ParCo*.

As with all previous conferences in this series *ParCo2013* will, through its informal nature, give participants excellent opportunities to meet and interact with fellow researchers.

### AIMS AND SCOPE

The aim of the conference is to give an overview of the state of the art of the developments, applications, and future trends in parallel computing for the whole range of platforms. The conference addresses all aspects of parallel computing, including applications, hardware and software technologies as well as languages and development environments.

### TOPIC AREAS

#### Section 1: Algorithms

Design, analysis, and implementation of parallel algorithms in science and engineering, focusing on issues such as

- Scalability and speedup
- Efficient utilization of the memory hierarchy
- Communication and synchronization
- Data Management and Exploration
- Energy Efficiency.

The parallel computing aspects should be emphasized.

#### Section 2: Software and Architectures

Software engineering for developing and maintaining parallel software, including

- Parallel programming languages, compilers, and environments
- Tools and techniques for generating reliable and efficient parallel code

- Testing and debugging techniques and tools
- Best practices of parallel computing on multicore, manycore, and stream processors.

Software, architectures and operating systems for all types of parallel computers may be considered, including multicores, GPU accelerators, FPGA reconfigurable systems, high-end machines and cloud computing.

### **Section 3: Applications**

The application of parallel computing to solve all types of business, industrial, scientific, and engineering problems using high-performance computing technologies, in particular:

- Applications of high-end machines including exascale
- Applications of multicore / manycore processors
- GPU-based applications
- Cloud and Grid computing applications.

## **PROGRAM**

The scientific program consists of invited and contributed papers as well as mini-symposia covering special topics.

Papers are presented in parallel sessions with 20 minutes available per presentation, with an additional five minutes for discussion.

A special session for young researchers as well as an industrial session and an exhibition are planned.

## **CONTRIBUTIONS**

### **Papers:**

We call for contributed papers in English Language. Extended abstracts of at least two pages should be submitted in electronic form by **28 February 2013**. Proposals are to be submitted in .pdf-format. Full papers are due before the conference.

Abstracts should clearly describe the contents of the proposed paper. The relevance and originality of the contribution must be described and the most important references included. At most five relevant keywords must be supplied. Also indicate the preferred topic area (section 1, 2 or 3) from the list given above.

Please check the conference Website <http://www.parco.org> for details on how to submit proposals. This information will be published as soon as the conference management tool has been set up.

### **Mini-Symposia:**

Proposals for organising a mini-symposium are called for. Such proposals should give:

- The proposed title of the symposium
- The name and affiliation(s) of the organiser(s)

- A short outline of the contents
- The planned number of papers.

Proposals for organising a mini-symposium can be submitted by **31 March 2013** to the mini-symposium chairs:

- Miriam Mehl [mehl@in.tum.de](mailto:mehl@in.tum.de)
- Tobias Weinzierl [weinzier@in.tum.de](mailto:weinzier@in.tum.de)

## DEADLINES

Extended abstracts of papers:	<b>28 February 2013</b>
Proposals for mini-symposia:	<b>31 March 2013</b>
Notification of acceptance for presentation at conference:	<b>15 May 2013</b>
Submission of full papers:	<b>31 July 2013</b>
Notification of inclusion of full papers in the proceedings:	<b>30 September 2013</b>

## PROCEEDINGS

The conference proceedings will be published after the conference.

An invitation to (an) author(s) to present a paper at the conference is based on an extended abstract or draft paper. Thus, the presentation of a paper at the conference does not imply an automatic acceptance of the presented paper for publication in the conference proceedings. All papers presented at the conference will be refereed at or after the conference. Only accepted papers will be published.

All papers presented as part of mini-symposia will be considered for publication in the proceedings. This will be done in liaison with the organiser(s) of the respective mini-symposium.

## CONFERENCE ORGANISATION

**ParCo2013** is organised by the non-profit foundation *ParCo Conferences* in cooperation with TUM and LRZ-BAdW, Germany.

<b>Conference Committee Chair:</b>	Gerhard Joubert	(Germany/Netherlands)
<b>Program Committee Chair:</b>	Arndt Bode	(Germany)
	Michael Bader	(Germany)
	Rosa Badia	(Spain)
<b>Organising Committee Chair:</b>	Hans-Joachim Bungartz	(Germany)
	Michael Gerndt	(Germany)

<b>Finance Chair:</b>	Frans Peters	(Netherlands)
<b>Advisory Committee:</b>	Thomas Lippert	(Germany)
	Thierry Priol	(France)
	Koen De Bosschere	(Belgium)
	Jack Dongarra	(USA)
<b>Organizing Committee:</b>	Michael Bader	(Organizing Chair)
	Arndt Bode	(Organizing Chair)
	Hans-Joachim Bungartz	(Organizing Chair)
	Michael Gerndt	(Organizing Chair)
	Houssam Haitof	(Logistics Chair)
	Herbert Huber	(Industry, Exhibition Chair)
	Miriam Mehl	(Mini-symposium Chair)
	Carsten Trinitis	(Industry Symposium Chair)
	Josef Weidendorfer	(Student Competition Chair)
	Tobias Weinzierl	(Mini-symposium Chair)

## CONTACT

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