

PARALLEL COMPUTING 2007 (ParCo2007)

4 – 7 September 2007

Jülich & Aachen, Germany

ANNOUNCEMENT & CALL FOR PAPERS

URL: <http://www.parco.org>

e-Mail: parco07@fz-juelich.de

ParCo2007 marks a quarter of a century of the international conferences on parallel computing that started in Berlin in 1983. This makes **ParCo** the longest running series of international conferences on the development and application of high speed parallel computing technologies in Europe.

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

The **ParCo2007** conference is organised by the renowned research and teaching institutions *Forschungszentrum Jülich* and the *RWTH Aachen University* in Germany.

The conference organisers plan the conferences such that a maximum opportunity is created for delegates to meet and interact with fellow researchers. The informal nature of the conferences allow for easy interaction of the delegates.

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 high performance computing for all platforms. The conference addresses all aspects of parallel computing, including applications, hardware and software technologies as well as languages and development environments.

Special emphasis will be placed on the:

- role of high performance processing to solve real-life problems in all areas, including scientific, engineering and multidisciplinary applications;
- strategies, experiences and conclusions made with respect to parallel computing.

TOPIC AREAS

Section 1: Applications

The application of parallel computers to solve computationally challenging problems in the physical and life sciences, engineering, industry and commerce. The treatment of complex multidisciplinary problems occurring in all application areas such as:

- space, geographic, climate, environment and energy systems
- biological, genetic and medical applications
- industrial (manufacturing) and
- business and financial applications

is of special interest. The parallel processing algorithms and paradigms used should be discussed.

Section 2: Algorithms

Design, analysis and implementation of generic parallel algorithms, including their

- scalability, in particular to a large number of processors (MPP),
- portability and
- adaptability.

The parallel computing paradigm and/or the abstract machine model must be described.

Section 3: Software and Architectures

Software engineering for developing and maintaining parallel software, including

- parallel programming models and paradigms
- development environments, compile-time and run-time tools.

Architectures and operating systems for all types of parallel computers.

Performance evaluation and benchmarking techniques.

PROGRAM

The scientific program consists of invited and contributed papers as well as a limited number of mini-symposia covering particular topics.

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

An industrial session and an exhibition of equipment are planned.

CONTRIBUTIONS

Papers:

Contributed papers in English are called for. Extended abstracts of at least 1000 words should be submitted in electronic form by **4 March 2007**. Formats can be either Acrobat.pdf, OpenOffice.odt or Word.doc.

Abstracts should clearly describe the contents of the paper. The relevance and originality of the contribution must be stated and the most important references included. Also indicate the preferred topic area (section) and give relevant keywords.

All submissions should be made via the ParCo2007 submission server:

<http://apps.fz-juelich.de/parco2007-registration/>

Mini-Symposia:

Proposals for organising a mini-symposium 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 directly to one of the members of the Symposium Committee or via the ParCo2007 submission server (URL: <http://apps.fz-juelich.de/parco2007-registration/>) by **4 March 2007**.

The members of the Symposium Committee are:

- Thomas Lippert (Chair): th.lippert@fz-juelich.de
- Gerhard Joubert: joubert@informatik.tu-clausthal.de
- Frans Peters: fpeters@iae.nl

DEADLINES

Abstracts of Papers: 4 March 2007
Proposals for Mini-Symposia: 4 March 2007
Notification of Acceptance of Papers for Presentation at Conference: 15 May 2007
Submission of Full Papers: 31 July 2007
Notification of Acceptance of Full Papers for Proceedings: 21 September 2007.

PROCEEDINGS

Paper proposals are accepted for presentation at the conference. Note that this does not automatically imply acceptance for publication in the conference proceedings.

All papers presented at the conference will be refereed for acceptance for publication in the conference proceedings.

Papers presented as part of Mini-Symposia will be considered for publication in the conference proceedings. This will be done in liaison with the organiser(s) of the respective symposium.

CONFERENCE ORGANISATION

The conference is organised by the non-profit foundation *ParCo Conferences* in co-operation with the *Forschungszentrum Jülich* and the *RWTH Aachen University*, Germany.

CONFERENCE OFFICE

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