Call for papers: Fifth International Workshop on

ALGORITHMS, MODELS AND TOOLS FOR PARALLEL COMPUTING ON HETEROGENEOUS NETWORKS (HeteroPar'06)

in conjunction with Cluster2006 (www.cluster2006.org) 25-28 September 2006, Barcelona

WORKSHOP THEME:

Networks of computers are the most common and available parallel architecture now. Unlike dedicated parallel computer systems, networks are inherently heterogeneous. They consist of diverse computers of different performances interconnected via heterogeneous network equipment providing communication links with different latencies and bandwidths. Traditional parallel algorithms and tools are aimed at homogeneous multiprocessors and cannot be efficiently used for parallel computing on heterogeneous networks. New ideas, dedicated algorithms and tools are needed to efficiently use this new type of parallel architectures. The workshop is intended to be a forum for people working on algorithms, programming languages, tools, and theoretical models aimed at efficient problem solutions on heterogeneous networks.

WORKSHOP SCOPE:

The topics to be covered include but are not limited to:

- Heterogeneous parallel programming paradigms and models;
- Languages, libraries and interfaces for different heterogeneous parallel programming models;
- Performances models and their integration into the design of efficient parallel algorithms for heterogeneous networks;
- Parallel algorithms for efficient solving problems on heterogeneous networks (numerical linear algebra, nonlinear systems, fast transforms, data mining, etc.);
- Software engineering for heterogeneous parallel systems;
- Applications on heterogeneous networks;
- Integration of parallel and distributed computing on heterogeneous networks of computers;
- Experience of porting parallel software from supercomputers to heterogeneous networks;
- Fault tolerance of parallel computations on heterogeneous networks;
- Algorithms, models and tools for high performance computing on global networks (grids).

SUBMISSION GUIDELINES:

HeteroPar'06 invites authors to submit full papers presenting original and unpublished research by May 18th, 2006. Submissions should consist of:

- A cover page with the author's full name, address, fax number and e-mail address;
- A 100-word abstract and keywords;
- A paper describing original research in no more than 25 double-spaced numbered pages using 12 point font on 8.5x11-inch pages with 1-inch margins all around;
- An optional appendix, with more details to be read/consulted at the discretion of the Program Committee.

All submissions will be reviewed by the Program Committee and outside referees. Submission will be sent to the Program Chair (Domingo Giménez: domingo@dif.um.es).

PUBLICATION: The workshop plans to publish the proceedings through the IEEE Computer Society Press as part of the Cluster 2006 proceedings.