

Workshop Description:

Computational grids allow the federation of significant computational and storage resources to solve challenging problems in science, engineering, medicine, finance, and entertainment. Involvement of multi-core platforms and wireless communications in the traditional grids comprised of clusters, workstations, and supercomputers pose new challenges to manage the grids and open new opportunities in using them. The High Performance Grid Computing workshop provides a forum for presenting research results on most aspects of grid computing, with a focus on performance, in the following areas: Applications, Benchmarking, Infrastructure, Management and Scheduling, Partitioning and Load Balancing, and Programming Models.

Topics of interest include but are not limited to:

- Applications: Theory and practice of composing grid applications consisting of multiple interacting tasks. Solution of large problems on grids.
- Benchmarking: Grid measurement technology for evaluating performance of grid hardware and middleware; benchmark results.
- Infrastructure: Implementation and evaluation of computational grid middleware.
- Management and Scheduling: Management, monitoring, resource allocation, scheduling, and metascheduling.
- Partitioning and Load Balancing: Partitioning applications for computational grids for achieving high performance,

and load balancing of grid applications.

- Multi-core processors as grid components.
- Programming Models: Methods for remote execution and intertask communications.

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