

# GridNets 2004

First International Workshop on Networks for Grid Applications



Technically Co-sponsored by IEEE Communication Society

IEEE COMMUNICATIONS SOCIETY

[www.gridnets.org](http://www.gridnets.org)

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Co-located with BroadNets 2004

Conference [www.broadnets.org](http://www.broadnets.org)

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The emergence of data-intensive grid applications will require the high transport and replication of very large data sets (up to *petabytes* of order) among multiple geographically distributed sites. To the overall performance of grid applications, the data access time is as much of a critical component as the computational speed.

The high-bandwidth demand created by grid requirements such as very large data sets is motivating the deployment of network infrastructures with extremely efficient data transport capabilities. At the same time, related need for application-level control of network resources, end-to-end, results in intelligent, dynamic service provisioning and access platforms. The new challenges posed by grid applications are leading to new research directions in network infrastructures, services, and data transport.

This single-track workshop will provide researchers and technologists with a focused, highly interactive opportunity to present and discuss leading research, development and future directions in networks that are ideally suited to data-intensive grid applications. Authors are invited to submit unpublished full papers for consideration.

## Scope

The **GridNets 2004** workshop will focus on research issues and challenges as well as lessons learned from experience. Topics of interest include and are not limited to:

- New concepts and requirements to shape the design of eScience and Research Networks
- Traffic characteristics and performance analysis
- New architectures and technologies that address grid requirements
- Experience on production-level optical network infrastructures
- Middleware design and grid layer integration issues for accessing and managing network resources
- Routing and scheduling for dynamic bandwidth control
- Monitoring, provisioning, brokering of network resources
- New multi-service frameworks and models
- End-to-end application level control of network resource
- Novel data transport protocols designed for new application services
- Data replication and multicasting strategies and protocols
- Fault-tolerance, protection, security, and scalability issues related to connecting large number of sites
- Network cost, performance, and incentive issues

**Paper Submission Deadline: June 15, 2004**

**Paper Acceptance Notification: August 1, 2004**

**Final paper submission: August 13, 2004**

(For submission instructions, refer to [www.gridnets.org](http://www.gridnets.org))