

Calendar/Meetings

MAY

9-12, [Cluster Computing and Grid 2005](#), Cardiff, UK

10-12, [BICCIB'05: From Biology to Computers and Back](#), Banff, Alberta, Canada

11-12, [Grid World Expo 2005](#), Tokyo, Japan

13-14, [NEES 3rd Annual Meeting](#), Minneapolis, MN

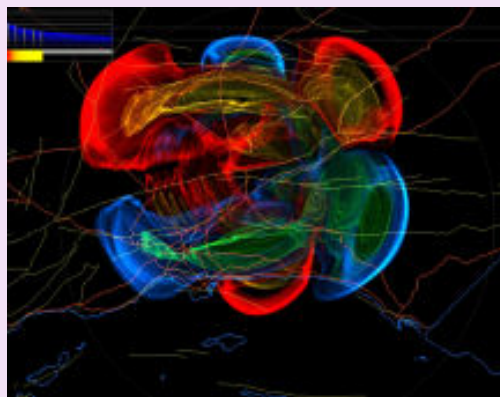
18-19, [Rocks-A-Palooza I](#) (Rocks All Hands Meeting), SDSC, La Jolla, CA

22-25, [International Conference on Computational Science 2005](#), Atlanta, GA

23-27, [International ICFA Workshop on HEP Networking, Grid and Digital Divide Issues for Global e-Science](#), Daegu, Korea

[Full Calendar](#)

Image of the Week



Visualization of a simulation of a large earthquake on the San Andreas Fault in California.

Courtesy of the Southern California Earthquake Center

Feature Story

QuarkNet Analyzes Cosmic Ray Data on the Grid



Alan B. Shepard High school senior Marshall Burhoff explains his work with QuarkNet to a group of underclassmen.

On Wednesday, April 27, developers of the QuarkNet Cosmic Ray Collaboration's Web portal analyzed cosmic ray data on the grid for the first time.

"We've been using grid techniques for 18 months now, but this is the first time we've run an analysis using computers from Grid3 sites," said QuarkNet Project Coordinator Tom Jordan. "The computing power available on the grid will allow students from across the country to simultaneously analyze cosmic ray data and to search for evidence of large cosmic-ray showers in multiple schools' detectors."

The QuarkNet Cosmic Ray Collaboration is a project funded by the National Science Foundation and the U.S. Department of Energy's Office of Science that gives high school students access to experimental particle physics data from cosmic ray detectors installed at 200 high schools across the U.S. Students build a cosmic ray detector at their school, collect data and upload it to a central site using a Web portal designed by Jordan and his colleagues at Fermilab.

[Read more...](#)

Announcement

Globus Toolkit 4.0 Released

On April 30, the Globus Alliance released version 4.0 of the Globus Toolkit. GT4 consists of a set of software components and libraries that can be used either independently or together to develop grid computing applications. The new version supports the latest web services standards and includes many new features in security and data and execution management.

"GT4 represents a major step forward in just about every dimension you can think of: code quality, robustness, documentation, features, and standards compliance," said Ian Foster, associate director of math and science at Argonne National Laboratory. "We've been working for close to two years on this, with a global community of grid developers and users. The result is a testament to the dedication and talent of that community."

The Globus Alliance conducts research and development to create fundamental technologies behind grid computing, which lets people share computing power, databases and other on-line tools securely across institutional and geographic boundaries. The Alliance produces open-source software, freely available to all developers, that is central to science and engineering grid activities. Developers of such projects in turn contribute to Toolkit development.



Globus Toolkit components will be used to store and analyze data from the ATLAS experiment. Image courtesy of CERN.

Scientists at the [Southern California Earthquake Center](#) use grid computing to tackle the challenge of exploring large, animated simulation data.

[Learn more...](#)

Statistic of the Week


12.6 million

Number of Web pages returned from a Google search on Grid Computing performed May 6, 2005.

[PDF Version for Printing](#)

[XML](#) [RSS Headlines](#)



 Office of Science/
U.S. DOE

Proposals for NSF's CI-TEAM Solicitation Due May 27

The National Science Foundation's first Cyberinfrastructure TEAM (CI-TEAM) solicitation seeks proposals from partnerships of organizations committed to the preparation of a diverse cyberinfrastructure-savvy science and engineering workforce. Following merit review of all CI-TEAM proposals received, 10-20 projects will be selected for support that together address a rich mix of cyberinfrastructure-related workforce dimensions, and that promise to serve as pathfinders to effective larger-scale implementation activities in the future.



Cyberinfrastructure is an integrated system of information technology-enabled systems, tools and services that have had a profound impact on the practice of science and engineering research and education. To harness the full power of cyberinfrastructure and the promise it portends for discovery, learning and innovation requires focused investments in the preparation of a science and engineering workforce with the knowledge and requisite skills needed to create, advance and exploit cyberinfrastructure over the long term.

Each proposal submitted in response to this solicitation should define a CI-TEAM demonstration project that is clearly focuses on one or more cyberinfrastructure-related science and engineering workforce dimensions. The project should be designed as a generalizable model with the potential to be replicated widely and scaled up to a national level, and should be built on strong science and engineering-focused partnerships among diverse organizations. Such organizations may include academic institutions, industry, and not-for profit organizations.

For more information see the full [CI-TEAM solicitation](#), NSF 05-560. Information about many other funding opportunities for science and cyberinfrastructure can be found on

[Read more...](#)

Grids in the News

Cyberinfrastructure for e-Science
Science Magazine, May 6, 2005
by Tony Hey and Anne E. Trefethen

Since its beginnings in the early 1990s, the Web has become an indispensable tool not just for the scientific world, but for the humanities, business, and recreation. Now, just a decade later, scientists are attempting to develop capabilities for collaboration that go far beyond those of the Web.

[Read more...](#)

Cyberinfrastructure: Empowering a "Third Way" in Biomedical Research
Science Magazine, May 6, 2005
by Kenneth H. Buetow

The information infrastructure revolution that has transformed business and has had marked impact in other scientific disciplines has had slow uptake in biology and medicine.

[Read more...](#)

Service-Oriented Science
Science Magazine, May 6, 2005
by Ian Foster

In this Viewpoint, I discuss how service-oriented computing—technology that allows powerful information tools to be made available over the network, always on tap, and easy for scientists to use—may contribute to that evolution.

[Read more...](#)

NIH Funds Next Generation Biology Workbench at SDSC
SDSC Press Release, May 4, 2005

La Jolla, Calif. – The San Diego Supercomputer Center (SDSC) announced today that it has received \$2.2 million from the National Institutes of Health (NIH) to provide a cutting-edge, web-based research resource free of charge to biology researchers, educators and students nationwide.

[Read more...](#)

the [NSF Web site](#).

—*Miriam Heller*