

Calendar/Meetings

November

30-December 3, [HPC Asia 2005: The 8th International Conference on High Performance Computing in Asia Pacific Region](#), Beijing, China

December

5-8, [International Conference on e-Science and Grid Technologies](#), Melbourne, Australia

6-8, [SURA Cyberinfrastructure Workshop Series: Grid Application Planning & Implementation](#), Austin, Texas

6, [Israeli Association of Grid Technologies Annual Conference](#), Hertzelia Arts Center, Israel

[Full Calendar](#)

Image of the Week



The LCG2 Real Time Monitor.
(Click on image for larger version.)

The [LCG2 Real Time Monitor](#) tracks jobs currently running on the LHC Computing Grid Project (LCG). The LCG builds and maintains a data storage and analysis infrastructure for the community of thousands of high energy physicists that will use

Feature Story

Buffalo Scientists Lead New York Grid Research



The Grid Health Monitor is one of the many tools available on the ACDC Grid Dashboard.

The University at Buffalo's Center for Computational Research is a hub of grid activity in New York State. Three years ago CCR researchers and staff members started the regional Advanced Computational Data Center Grid, a project that now provides the driving force behind the NSF-funded Western New York Grid for Science and Engineering. The ACDC Grid also leads a grass roots effort to create a New York State grid linking the state's Centers of Excellence and State University of New York campuses.

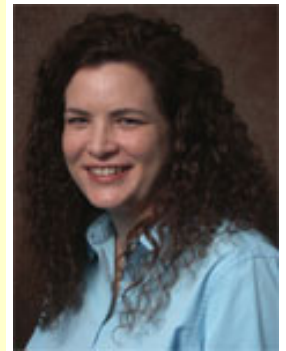
"The ACDC Grid coordinates resources from UB, the NYS Center of Excellence in Bioinformatics, the Buffalo-Niagara Medical Campus and several other universities in the Buffalo area," said Mark L. Green, grid computational scientist at the CCR. "We hope that the Western New York Grid, which brings together UB, the Hauptman-Woodward Medical Research Institute, SUNY Geneseo and Niagara University, will further promote our efforts to form a state-wide grid."

A dozen applications in bioinformatics, biomedicine, earthquake engineering, chemistry and earth science use the ACDC Grid. Scientists model groundwater flow,

Profile

Ann Chervenak: Connecting Scientists and Data

When data-intensive applications and distributed collaborations meet, the result can be myriad copies of large data sets located around the world. Ann Chervenak helps these collaborations easily find and reliably transfer these data replicas.



Ann Chervenak

Chervenak is a Research Team Leader and Research Assistant Professor at the University of Southern California's Information Sciences Institute, where she works on data management as part of the Globus Alliance core team. The Globus team, which includes researchers from Illinois, California, Sweden and Scotland, develops fundamental technologies behind the Grid.

Two software systems for data management command most of Chervenak's time. The replica location service (RLS), a lower-level service that is a full-fledged part of the Globus Toolkit, registers replicas of data and discovers them later. The data replication service (DRS), still a work in progress, is a higher-level service that integrates the RLS with reliable data movement technology.

[Full article](#)

Grids in the News

the Large Hadron Collider, a particle accelerator at CERN in Geneva, Switzerland. The monitor, which runs as a Java applet, displays all jobs submitted through selected LCG Resource Brokers in real time, along with changes in status and current Phedex transfers.

[Link of the Week](#)

CTWatch Blog

Cyberinfrastructure Technology Watch (CTWatch) engages the science and engineering research community in the news, ideas, and information surrounding the emergence of cyberinfrastructure as the essential foundation for advanced scientific inquiry. The CTWatch blog is a forum for calling attention to and talking about cyberinfrastructure; recent entries have discussed wi-fi, podcasting, budgets and grid standards.

[PDF Version for Printing](#)

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



Office of Science/
U.S. DOE

study hydrodynamic circulation in the Great Lakes, design earthquake resilient structures, determine molecular structure and research quantum chemistry. At the heart of the ACDC Grid is the grid portal, which allows a scientist to port an application to the grid once and have it run on many different resources from several grids.

[Full article](#)

Meet The Grid



Oliver Gutsche sits in a quiet warren of cubicles in Fermilab's Wilson Hall, concentrating on his computer screen, ignoring the panoramic view from his 11th-floor window. He's working feverishly toward a deadline less than two years away, when over 5000 scientists will participate in the largest and most international grid computing experiment ever conducted.

Gutsche is a member of the Compact Muon Solenoid (CMS) particle physics experiment, one of four experiments being built at the Large Hadron Collider at CERN in Switzerland. When the LHC, which will be the world's highest-energy particle accelerator, begins operating in 2007, vast amounts of data will be collected by its experiments. Scientists worldwide will need to sift through the mountain of data to find elusive evidence of new particles and forces.

"The Compact Muon Solenoid experiment will take 225 megabytes of data each second for a period equivalent to 115 days in 2008," says Gutsche. "That means each year we'll collect over two petabytes of data."

[Read the full article in *symmetry Magazine*](#)

National Science Foundation awards \$13.3 million for Globus Toolkit development

University of Chicago Press Release, November 28, 2005

The National Science Foundation (NSF) has made a five-year, \$13.3 million award to sustain and enhance the Globus Toolkit, the software that underpins a rapidly increasing number of large information-intensive science projects in the United States and abroad.

[Read More...](#)

World's biggest grid seeks secrets of the universe

Silicon.com, November 24, 2005
By Steve Ranger

The mysteries of dark matter, multiple dimensions and even the conditions following the Big Bang could be solved with the help of the world's biggest computer grid.

[Read More...](#)

Distributed Computing Project Discovers New Knowledge About Earthquakes

Science Daily, November 24, 2005

A UK-based distributed computing project is revealing new scientific insights into earthquakes.

[Read More...](#)

Grid computing used in battle to beat AIDS

Silicon Republic, November 23, 2005
By John Kennedy

A research effort to help combat AIDS using the computational power of the IBM-backed World Community Grid has been developed.

[Read More...](#)

CERN awarded high-performance computing prize at Supercomputing 2005

CERN Press Release, November 16, 2005

Geneva, 16 November 2005. CERN1 has received the High Performance Computing (HPC) Public Awareness Award at a ceremony at Supercomputing 2005 in Seattle this week.

[Read More...](#)