

Calendar/Meetings

January

9-11, [SURA Cyberinfrastructure Workshop Series: Life Sciences Grid Application Workshop](#), Richmond, VA

9-13, [SEEK Early Career Faculty Training](#), Albuquerque, New Mexico

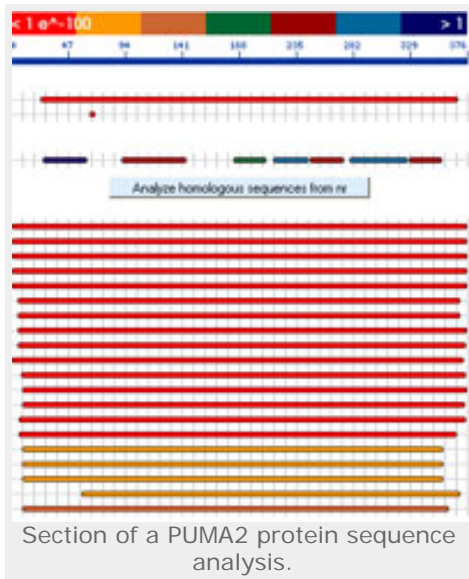
11-12, [15th GridPP Collaboration Meeting](#), Rutherford Appleton Laboratory, Oxfordshire, UK

16-20, [5th Nordic Grid Neighborhood Workshop](#), Uppsala, Sweden

[Full Calendar](#)

Feature Story

GADU Helps Biologists Decode DNA



Biologist Natalia Maltsev and a team at Argonne National Laboratory and the University of Chicago use grid computing to help researchers solve the mysteries of life. Their Genome Analysis and Database Update system (GADU) provides the core for several bioinformatics applications that search for similarities and differences among thousands of genome and protein sequences and metabolic pathways.

"Bioinformatics is the science of big numbers," says Maltsev. "Most of the scientific insight comes from the comparison of what is unknown to what is known. To understand similarities between organisms, you need to integrate huge amounts of data using algorithms, which means you need a high-throughput computational backend."

GADU provides such a backend, using computational resources from the TeraGrid and the Open Science Grid. Applications such as GNARE and PUMA2, used by over 2,400 researchers worldwide, provide information about the analysis of thousands of genome and protein

Grid and e-Science Progress Highlighted in Melbourne



The city of Melbourne.

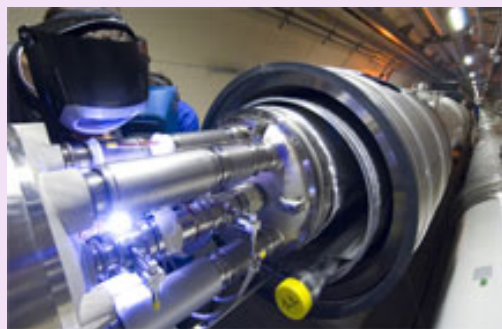
The first International Conference on e-Science and Grid Computing (e-Science 2005) was held December 5-8, 2005 at the Langham Hotel in Melbourne, Australia. The conference provided a forum for all e-science and grid researchers, developers and users to discuss and discover recent progress in e-science.

This first in a series of e-Science conferences was held jointly with the second International Conference on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP 2005). The combined conferences attracted more than 350 participants from more than 30 countries. The e-Science conference alone received over 175 contributions from Asia, Australia, Europe and the Americas.

"The interest the conference generated worldwide was impressive, as was the high quality of the papers submitted from the international community," said conference organizer Ron Perrott. "The keynote speakers really set the scene by presenting vision, opportunity and progress in the e-science area. The breadth and depth of the conference presentations emphasised the widespread developments taking place in grid computing and e-science."

[Full article](#)

Image of the Week



Welding LHC magnets. (Click on image for larger version.)

Image © CERN

The [Large Hadron Collider](#), under construction at [CERN](#) in Geneva, Switzerland, will be the most data-intensive physics instrument in the world when it begins operating in 2007. For thousands of researchers worldwide to use the LHC to study the fundamental properties of subatomic particles and forces, they will need easy access to data from the four LHC experiments. A global grid computing infrastructure is under construction to aid physicists in data access and analysis. This photo

shows the very first interconnection being made between two LHC cryomagnets in May 2005.

[Link of the Week](#)


The Grid Meter

Globus Consortium President Greg Nawrocki is the Grid Meter, InfoWorld's blogger for all things grid. The Grid Meter provides readers with ongoing commentary about exciting grid projects, industry debates and educational resources that will help readers make sense of this emerging technology.

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 Office of Science/
U.S. DOE

sequences and allow scientists to compare their own genomes against databases of millions of sequences. The applications are used to study topics such as bioremediation, the use of microorganisms to clean up pollution.

[Full article](#)

EGEE User Forum Call for Abstracts



The first Enabling Grids for E-Science User Forum will be held March 1-3, 2006 at CERN in Geneva, Switzerland. It will provide an opportunity for innovative applications to establish contacts with EGEE and with other user communities, plan for the future usage of the EGEE grid infrastructure, learn about the latest advances and discuss the future evolution of grid middleware. The forum also provides an opportunity for dialogue with industrial parties having an interest in EGEE Grid technology.

For this event we solicit community contributions in four areas: EGEE applications; grid computing techniques; on-line demonstrations; and posters. For the first two categories, extended abstracts of up to 1,000 words will be accepted, and the program committee will review the submissions and select contributions for inclusion into the EGEE User Forum Book of Abstracts. The User Forum Book of Abstracts is expected to be published prior to the Forum in electronic form. Selected extended abstracts may also be invited to be presented in either a parallel or poster session, or as part of an on-line demonstration.

Abstract submissions are due January 29, 2006, and acceptance notification will be sent February 6.

[More details](#)

[Grids in the News](#)

SDSC and NCSA Provide Combined TeraGrid Resources
Supercomputing Online, January 6, 2006

Starting in 2006, users requesting high-performance computing resources from the National Science Foundation will have seamless access to all computational resources at the San Diego Supercomputer Center (SDSC) and the National Center for Supercomputing Applications (NCSA) within the TeraGrid environment.

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NSF grant to fund project on behavioral psychology

The University of Chicago Chronicle, January 5, 2006
By William Harms

The results of a project that combines computing technology with massive data collection and analysis could help scientists better understand the connections between the brain and speech as well as other aspects of communication and behavior.

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IBM and Universities Launch Latin American Grid Computing Initiative

Hispanic Business.com, January 3, 2006

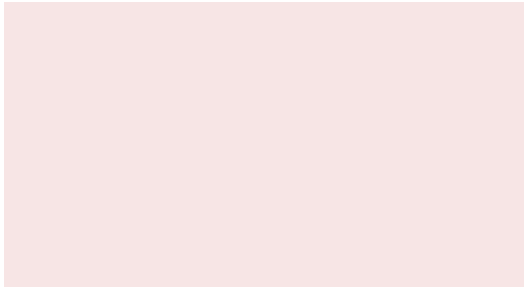
Building upon the company's effort to foster world class research and create leadership opportunities for Hispanic students in information technology and engineering, IBM today announced it is teaming with Florida International University, University of Puerto Rico at Mayaguez, University of Miami, Barcelona Supercomputing Center and Monterrey Tech to invest in the Latin American Grid initiative.

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Grid Discovers Largest Known Prime Number

Grid Computing Planet, December 28, 2005

By Sharon Gaudin



Using an international grid of about 70,000 computers, researchers this month discovered the largest known prime number.

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