

Calendar/Meetings

July

9-21, [International Summer School on Grid Computing](#), Ischia, Italy

10-12, [VECPAR'06: High Performance Computing for Computational Science](#), Rio de Janeiro, Brazil

12, [EGEE Industry Day](#), Ischia, Italy

13, [WCGC'2006](#), Rio de Janeiro, Brazil

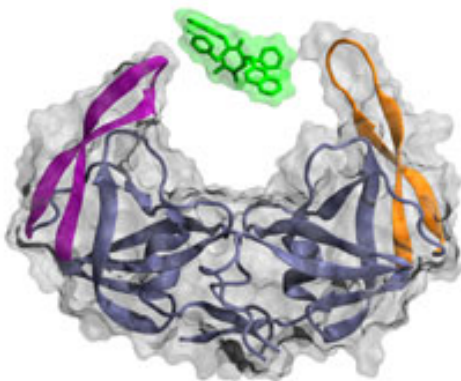
16-18, [ICNS'06](#), Silicon Valley, CA

17-21, [22nd APAN Meeting](#), Singapore

17-21, [IFIP Working Conference on Grid-based Problem Solving Environments](#), Prescott, AZ

[Full Calendar](#)

Image of the Week



The mechanics of HIV protease.
(Click on image for larger version.)

Image Courtesy Carlos Simmerling, State University of New York at Stony Brook

Using one of the TeraGrid compute resources located at the National

Feature Story

One Campus Grid's Voyage



This article is the fourth in an ongoing series about directions in campus grids.

Four years ago, the staff at the Texas Advanced Computing Center embarked on a journey to create a campus cyberinfrastructure for The University of Texas at Austin. With the goals of trying out different grid computing paradigms within a campus environment and exploring user interfaces to the grid, TACC procured funding from the university and IBM for two years. Seven months after the end of the UT Grid's first phase, the project has produced several technology benefits that reach beyond the UT campus, in addition to creating and expanding two campus grids.

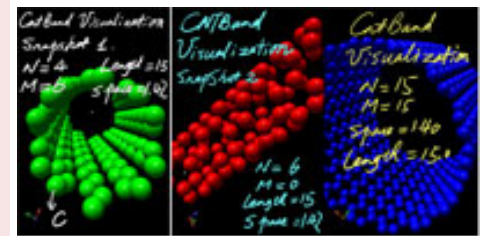
"Sometimes you get engaged in a project and can't predict what's going to have the highest impact down the road," says TACC Director Jay Boisseau. "While the initial funded phase of UT Grid ended without achieving some of the original goals, the project resulted in the evolution of the GridPort toolkit, the creation of the GridShell software, the deployment of a production PC grid environment using United Devices software and the expansion of a campus PC grid based on Condor software."

The GridPort toolkit was built by TACC researchers to create grid computing user portals. GridShell, now known as MyCluster within the TeraGrid, enables grid users with applications that include a large number of serial computations to

Essay

Cyberinfrastructure-Enabled Educational Engineering

By Krishna Madhavan, Purdue University



A Carbon Nanotube Simulator with an ink interaction interface for enhanced collaboration and instruction.

In the same way that cyberinfrastructure is revolutionizing the scientific landscape, it is also set to revolutionize learning in the information age. Today, science, technology and engineering curricula, even at the nation's most technologically advanced universities, rely in large part on pedagogical practices that have their genesis in the pre-Renaissance era. The sounds of "It worked for me! Why should it not work for my students?" reverberate throughout pedagogical circles. But the current generation of students is growing up in a very different environment than we, the current generation of educators, did. They live in an information age, where technology is an intrinsic part of how they live and learn.

If we take a holistic view of information technology, we can see pedagogical shifts that may take place at all levels of education. Daniel Atkins, the newly appointed director of NSF's Office of Cyberinfrastructure, recently highlighted the immediate need to rethink the face-to-face time that faculty members get with their students. In a talk at the TeraGrid 2006 conference, he pointed out that if cyberservices provide students with access to almost all the data and information that faculty members are going to "lecture" about in their classrooms, simply treating

Center for Supercomputing Applications, a team of scientists led by Carlos Simmerling and Robert Rizzo has conducted simulations that offer insight into the mechanics of HIV protease, a molecule that slices the pre-HIV protein chain into pieces that evolve into a mature virus. By modeling how HIV protease works, researchers hope to determine how best to target it with medicines that could stop the molecule from doing its job.

[Read more...](#)

Statistic of the Week

13

The UK's Engineering and Physical Sciences Research Council and other funding partners have awarded more than £13 million to three projects that will study the brain, traffic and nanoscale circuits using e-Science and grid computing.

Source: [The Engineer Online](#)

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Office of Science/
U.S. DOE

easily access many computing nodes across a grid.

[Full article](#)

Grids in the News

EGEE helps achieve international digital broadcasting

EGEE Press Release, July 11, 2006

Over the last two months, the EGEE project successfully supported a series of large-scale data processing activities being carried out by the International Telecommunications Union (ITU) as part of the ITU's Regional Radiocommunication Conference.

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SDSC Manages Data for National Optical Astronomy Observatory

GRIDtoday, July 10, 2006

By Paul Tooby

The traditional picture people have of an astronomer standing at a telescope and taking photographs of heavenly objects has been dramatically transformed by advancing technologies.

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Framework for processing LSST astronomy data undergoing first annual challenge

NCSA Press Release, July 11, 2006

The Large Synoptic Survey Telescope (LSST) won't begin operation until 2013, but researchers are already rehearsing for the massive volume of data the telescope will produce.

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Sensor Networks Plug Into Hudson River

Houston Chronicle, July 10, 2006

By Michael Hill, AP Writer

Lowered into a muddy stretch of the Hudson River, the unmanned submarine dove through the murk and zigzagged downstream, meticulously collecting information on

classrooms as information delivery space will no longer work. Cleverly hidden in this call to action was the need to take a critical look at not only what happens within the classroom, but also how students today live in the real world.

[Full article](#)

Announcement

Nominations Open for 2006 Globus Awards



The Globus Foundation would like to recognize those who have made contributions to the Globus Toolkit during its first decade. The Foundation has thus established the 2006 Globus Awards, which will be presented at the Globus 10th Birthday Party at GridWorld 2006. Nominations will be taken throughout the month of July, and will be voted on by the Globus Committers in August.

Anyone may nominate candidates for the awards, and categories can be found at the [Globus Awards Web site](#). Nominations should be emailed to [Greg Nawrocki](#) with "The 2006 Globus Awards" in the subject line.

[GridWorld 2006](#), which includes [GlobusWORLD 2006](#) and [GGF18](#), will be held September 11-15 at the Washington Convention Center in Washington, D.C.

the water's condition and
transmitting it to scientists.

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