

## Calendar/Meetings

### June

25-30, [SciDAC 2006](#), Denver, Colorado

26-30, [Grid Summer Workshop 2006](#), South Padre Island, Texas

26-30, [GRID'2006](#), Dubna, Russia

27-29, [16th GridPP Collaboration Meeting](#), University of London, UK

### July

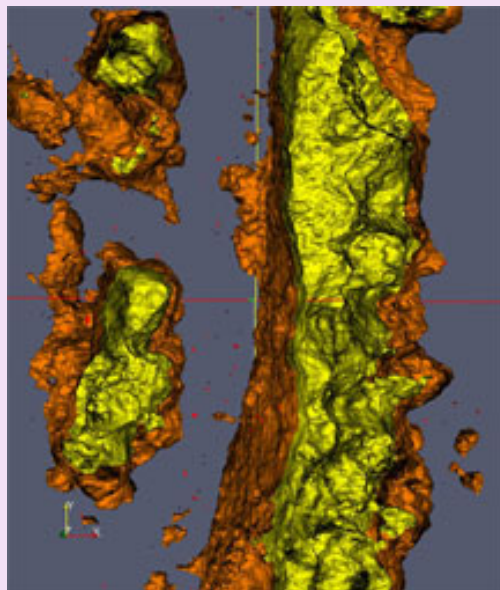
3-6, [HPC 2006](#), Cetraro, Italy

4-7, [ICDCS 2006](#), Lisboa, Portugal

4-8, [1st BalticGrid Summer School](#), Tartu University, Estonia

[Full Calendar](#)

## Image of the Week



**3D reconstruction of synaptic membranes obtained from electron tomography. (Click on**

## Feature Story

### São Paulo Seizes Grid Initiative



Grids are about to take flight in the Brazilian state of São Paulo. São Paulo State University (UNESP) has just received funding for a computing grid infrastructure that will link many of its campuses, to the benefit of researchers across the state. GridUNESP will supply computing resources for researchers in physics, biology and bioinformatics, geosciences and engineering and many other disciplines.

"UNESP has several research areas of excellence that demand a great deal of computing power and large amounts of data," says project coordinator Sérgio Novaes. "I believe that GridUNESP will provide the necessary means to improve even more our performance in these areas."

Because UNESP's campuses are distributed throughout an area equivalent in size to the United Kingdom, a grid infrastructure is the best solution to enable a homogeneous distribution of resources across the university. The GridUNESP project will deploy processing centers in different cities of the state of São Paulo and integrate them through a grid architecture. This implementation will aggregate existing resources, optimizing their use and increasing the overall computing power of UNESP.

[Full article](#)

## From the Editor

In honor of the Fourth of July holiday, Science Grid This Week will take next week off and will return with a new issue on July 12.

## Profile

### Linking Researchers and Resources

Lavanya Ramakrishnan has seen her grid computing focus shift from security to scientific applications over the past four years. After finishing her Masters degree at Indiana University in 2002, she continued her work in grid security at MCNC before moving to the newly-formed Renaissance Computing Institute in Chapel Hill, North Carolina, where she jumped feet-first into the world of scientific applications.



Lavanya Ramakrishnan

Ramakrishnan was responsible for last year's first deployment of the North Carolina Bioportal, and is now heavily involved with grid computing for SCOOP, the Southeastern Universities Research Association's Southeastern Coastal Ocean Observing and Prediction Program, and Linked Environments for Atmospheric Discovery. All these projects bring Ramakrishnan into close contact with application scientists, an interaction she enjoys.

"You realize early on that there's a vocabulary difference, but the partnership works really well once you understand each other a little bit--enough to talk each other's language," she explains.

In SCOOP, Ramakrishnan is working to assure quality of service for a specific storm surge model within the

image for larger version.)

Image Courtesy UT Southwestern Medical Center and TACC

This image shows a portion of a nerve synaptic membrane stained with phosphotungstic acid. The data used to create this three-dimensional reconstruction were collected using electron tomography at the University of Texas Southwestern Medical Center at Dallas. The 3D visualization was carried out remotely, in real-time, on computing resources at the Texas Advanced Computing Center in Austin.

#### Statistic of the Week

# 24.5

Worldwide spending on grid computing could reach \$24.5 billion by 2011, up from \$1.8 billion in 2006, according to a new study by the Insight Research Corporation.

**Source:** Computing: "Grid computing hits the big time"

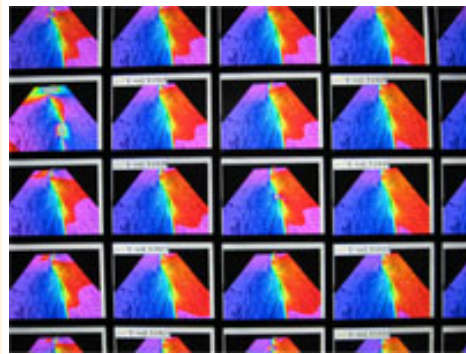
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Office of Science/  
U.S. DOE

## The OptIPuter: 21st Century E-Science



Earth science visualization using OptIPuter technology presented at iGrid in 2005.

The OptIPuter project—named for its use of optical networking, computer storage, processing and visualization technologies—is a 21st-century prototype cyberinfrastructure that tightly couples computational resources over parallel optical networks using the internet protocol (IP) communication mechanism.

The OptIPuter exploits a new world in which



the central architectural element is optical networking, not computers, said project manager Maxine Brown speaking at the first annual TeraGrid conference in Indianapolis.

"The goal of this new architecture is to enable scientists who are generating terabytes and petabytes of data to interactively visualize, analyze and correlate their data from multiple remote storage sites connected to optical networks," said Brown, associate director of the Electronic Visualization Laboratory at the University of Illinois at Chicago.

[Full article](#)

*This article, by Faith Singer-Villalobos from the Texas Advanced Computing Center, originally appeared in [GRIDtoday](#).*

program. For LEAD, she researches dynamic and adaptive workflows. The goal of LEAD is to adapt meteorological resources - everything from radar orientations to data streams - with the weather itself, so workflows must be data-driven and adaptable.

[Full article](#)

## Grids in the News

### UW links with Israeli school to locate genes

Wisconsin Technology Network, June 26, 2006

By Les Chappell

A collaborative project between the University of Wisconsin-Madison and the Technion-Israel Institute of Technology in Haifa has shown that while it might be best to let sleeping dogs lie, thousands of sleeping computers can unravel the twisted code of genetic diseases.

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### Grid standard groups unite to form Open Grid Forum

NetworkWorld, June 26, 2006

By China Martens

Two former dueling grid groups Monday made good on their February promise to merge with the mission of speeding the adoption of grid technology worldwide.

[Read More...](#)

### Putting services at the heart of tomorrow's software

IST Results, June 26, 2006

Service development in Service Oriented Architecture (SOA) is the point where small, functional services can be linked together to achieve some larger goal, and it is the point where computing could finally deliver the productivity gains and functional flexibility that it promised for so long.

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