

Calendar/Meetings

July 2005

10-22, [Third International Summer School on Grid Computing](#), Naples, Italy

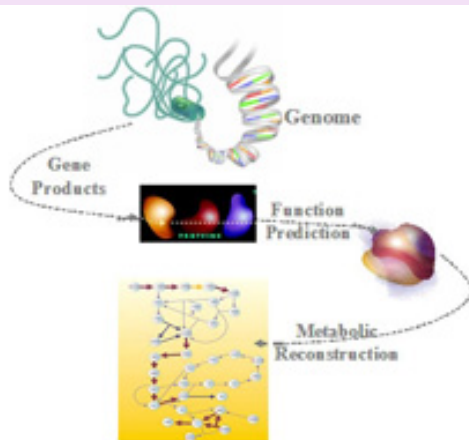
11-15, [Grid Summer Workshop 2005](#), South Padre Island, Texas

13, [Second Annual High Performance Computing Users Conference: Accelerating Innovation for Prosperity](#), Washington, D.C.

14-16, [AstroGrid Workshop](#), University of Cambridge, UK

[Full Calendar](#)

Image of the Week



High-Throughput Genome Analysis using GADU/GNARE

Schematic of genome analysis using GADU/GNARE. (Click on image for larger version.)

Courtesy GADU/GNARE

GADU, a Genome Analysis and Databases Update tool for the Mathematics and Computer Science department at Argonne National Laboratories, searches periodically through DNA and protein databases for new and updated genomes and then computes and publishes derived

Feature Story

Grids Speed Up Dartmouth's fMRI Research

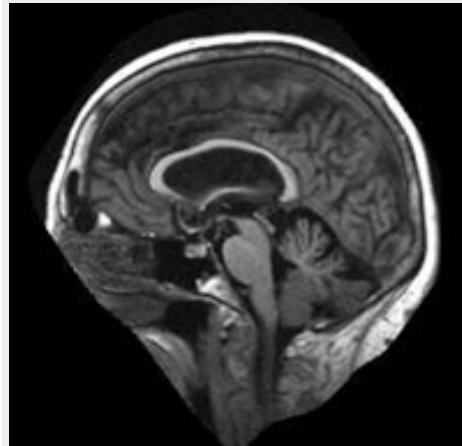


Image from an fMRI scan.
Courtesy Mike Wilde and Jed Dobson

What happens in your brain when there's a song stuck in your head? Researchers in the Department of Psychological and Brain Sciences at Dartmouth College wanted to find out, so they turned to their functional magnetic resonance imaging (fMRI) scanner and grid computing.

"We had people come in and listen to short clips of songs, and asked them which they knew and which they didn't," said Assistant Professor William Kelley, one of the study's researchers. "Then we sent them into the fMRI scanner, where we played the same songs, with short gaps inserted in the music."

The goal was to analyze each subject's brain activity during the moments when there were gaps in the songs, comparing brain activity during silence in songs people knew to activity during silence in songs they didn't. Before the analysis could be performed, however, all the fMRI scans had to be normalized.

"There's a whole set of processing you have to do before you can even look at the data," explained Kelley. "You have to make everybody's brain the same size, eliminate effects from

Twenty Years of Condor

The Condor project began in 1985 as a way to harvest computing power from idle desktop computers in the University of Wisconsin's Computer Science Department. In the past 20 years, the Condor project has grown from two to over 30 people, and now provides researchers access to the resources of pooled desktop computers, computer clusters and grid computing projects worldwide.



"We are celebrating two decades of the flight of the Condor," said computer scientist Miron Livny from the University of Wisconsin-Madison, lead researcher on the Condor project. The Condor idea, which had its root in Livny's Ph.D. research on distributed computing systems, is that users with computing jobs to run and not enough resources on their desktop should be connected to available resources in the same room or across the globe.

"Condor works like eBay," explains Livny. "There, some people want to buy things and others want to sell, and eBay brings them together. Here, people want to run jobs, there are resources available, and the matchmaker software brings them together."

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Grids in the News

values.

[Learn more...](#)

Link of the Week

GRID Summer Workshop 2005

The second GRID Summer Workshop is taking place this week at the University of Texas at Brownsville/Texas Southmost College South Padre Island Center. Forty-four students from four countries are attending the workshop, which introduces undergraduate and graduate students to grid computing and its application in scientific data analysis.

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 Office of Science/
U.S. DOE

brain motion during the scan, and make many other adjustments to normalize the scans. Grid computing is very useful for this."

Before computer scientist James Dobson and collaborators at Dartmouth turned to grid computing for fMRI normalization, researchers were tying up clusters and desktop computers for days at a time running the 20,000-file scans through the necessary steps.

[Read more...](#)

What Is Grid Computing and How Can You Benefit from It?

MC Mag Online, July 2005

By Lane Schwartz

We'll examine the basics of today's grid technology and take a glimpse at the grids of tomorrow.

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Grid computing and virtual collaboration begins to realise its international potential

University of Southampton News Release, July 6, 2005

Virtual research collaboration is being taken to a new level with the creation of the very first international, interdisciplinary computer Grid.

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