

An increasing number of grid projects are under way worldwide, driven by expanding data accumulation—which for some experiments is expected to grow 1000-fold from 100 terabytes to 100 petabytes over the next decade. GriPhyN will be developed alongside the Department of Energy's year-old Particle Physics Data Grid and the European DataGrid, a new project focused on CERN's LHC experiments. They are all expected to build on the same basic software.

Only raw data would physically exist in the grid—everything else could be stored as specifications on how to derive it, with copies of commonly used results kept wherever is cheapest. "Much of the time, the result you need will already have been computed by one of your colleagues and the system will know where to find it," says the University of Chicago's Ian Foster, who is coleader of GriPhyN. Information will be stored with an explanation of where it came from, when it was created, and how it was processed.

Grids like GriPhyN, which will cope with collaborative data analysis by researchers spread around the globe and sift through data for rare signals, are likely to find applications in many computational-intensive areas, such as the human genome project or Earth observing systems. "GriPhyN could also prove useful for large business applications," Avery says; for example, by tracking consumer buying habits through distributed databases.

LYNLEY HARGREAVES

Pittsburgh Auctions Off Vintage Supercomputer

We need to make space for the new baby, and we'd like to find a good home for this senior citizen, who is possessed of great wisdom and has abundant good usage left for the right people," ran the ad for a Cray Y-MP C90 supercomputer, which the Pittsburgh Supercomputing Center (PSC) sold in September through the online auction site eBay.

Bidding began at \$35 000 and Steve Blank, a self-described serial entrepreneur in Silicon Valley who just retired at age 46, landed the supercomputer for \$45 100.70. "I'm interested in the history of technology and military history—and this seemed to be the pinnacle of both," says Blank. This particular super-



CRAY C90 finds a home on the ranch.

computer wasn't used for military research but, says Blank, "the bits can't tell the difference. It's a symbol of its type—and in 50 years, it may be the only one that's still running, a historical artifact."

The PSC shut down the 16-gigaflop C90 last year, because maintaining it had become too expensive. The decision to get rid of it followed when the National Science Foundation awarded the center \$45 million for a teraflop machine this past August. The new supercomputer is scheduled to be up and running by the end of 2001. It will be some 375 times more powerful than the C90. And, like the C90 when it came online in 1993, it will be the best computer available for nonclassified research.

Cray, the C90's manufacturer, wanted \$27 000 to haul the machine off for salvage. "Someone here suggested half-jokingly that we should auction it on eBay, so we decided to give it a shot," says PSC science writer Michael Schneider.

Blank plans to house the C90 in a barn on his new ranch in northern California, and friends from one of his eight startups, the 1980s supercomputer company Ardent Computers, are eager to rev it up.

TONI FEDER

Sarachik Is Elected APS Vice President

The American Physical Society has elected Myriam Sarachik, an experimental condensed matter physicist at the City College of the City University of New York, vice president for 2001. She steps into the presidential line behind William Brinkman, taking office on 1 January, to become president-elect in 2002 and president in 2003.

Sarachik earned her PhD from Columbia University in 1960. Before joining City College in 1964, she spent time as a research associate at Columbia's IBM Watson Laboratories and

Bell Telephone Laboratories in Murray Hill, New Jersey. She has done work in superconductivity, disordered metallic alloys, metal-insulator transitions, and single-molecule magnets.

"One of my goals as president will be to strengthen our efforts to make a career in physics attractive," Sarachik says. The declining number of students studying physics and the worldwide shortage of scientists and engineers are two of the most urgent issues facing the APS, she adds. "We must make salaries competitive with other professional options." It is also important, she says, to convince legislators of the need to invest in science that will seed the technology of the future.

Also taking office on 1 January is Susan Coppersmith, a theoretical condensed matter physicist from the University of Chicago, who will be the new chair-elect of the nominating committee.



SARACHIK

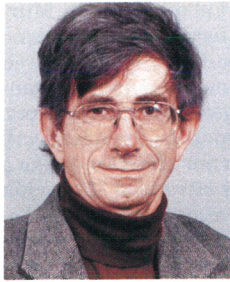
The two new members of the APS council are Cherry Murray, director of the Physical Research Laboratories at Bell Labs and Jonathan A. Bagger, a high-energy physicist at Johns Hopkins University.

Dickinson Will Lead AGU in 2002

In July, Robert E. Dickinson, a professor of atmospheric sciences at the Georgia Institute of Technology, took office as president-elect of the American Geophysical Union. After two years, Dickinson will succeed Marcia K. McNutt as AGU president.

Dickinson, whose research interests are in climate modeling and global change, received a BA in chemistry and physics from Harvard University in 1961 and a PhD in meteorology from MIT in 1966. He then joined the National Center for Atmospheric Research in Boulder, Colorado, where he stayed until becoming a professor at the University of Arizona in 1990. Last year, he moved to Georgia Tech, where he is seeking more effective ways to integrate satellite data into climate models.

In his candidate's statement, Dickinson said that he especially valued the AGU's role in the "facilitation of



DICKINSON

communication between different disciplines and scientific communities." Other valuable activities, he added, include public education, student education, and the "encour-

agement of the professional development of young scientists."

In other AGU election results, John Orcutt, a geophysicist at the University of California, San Diego, is staying on as general secretary. The society's international secretary, Gordon Rostocker of the Solar Terrestrial Environment Laboratory at Nagoya University in Japan, was also reelected for two years.

Hartmann Is ASA President-Elect

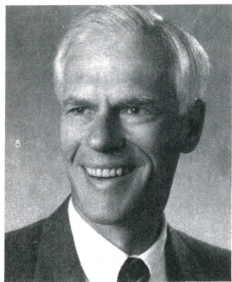
William M. Hartmann, a professor of physics at Michigan State University, became president-elect of the Acoustical Society of America this past June. He will succeed Katherine S. Hansen as ASA president in 2001.

Hartmann received a BS in electrical engineering and physics from Iowa State University in 1961 and earned his PhD in condensed matter physics

in 1965 as a Rhodes Scholar at Oxford University. After three years as a research assistant at Argonne National Laboratory, he joined Michigan State. In 1976, Hartmann's work on lattice dynamics and the electron-phonon

interaction took a sudden change of direction: Inspired by teaching a musical acoustics course, he became interested in human hearing. He now works on sound localization (see his article in *PHYSICS TODAY*, November 1999, page 24), pitch perception, and signal detection, and recently demonstrated a new method of sound recording that recreates the listening environment of a live musical performance.

The ASA is finding new challenges

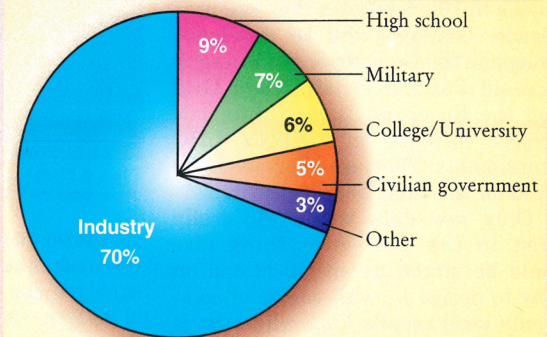


HARTMANN

Who's Hiring Physics Bachelors?

The bulk of US graduates with a bachelor's degree in physics end up working in industry (see figure)—everywhere from Lockheed Martin to the Walt Disney Co. A list of their employers, broken down state by state for the classes of 1996 through 1998, was recently compiled by the American Institute of Physics' statistical research center. This list and related reports are available online at <http://www.aip.org/statistics/trends/emptrends.htm>.

Employer distribution for full-time US employed physics bachelors, class of 1997.



and opportunities in electronic communication and publishing, Hartmann says. "Within the year, acousticians will have CD-ROMs containing every article published in *JASA* [Journal of the ASA], from its origin in 1929 to the present."

Janet M. Weisenberger of Ohio State University's speech and hearing science department also took office in June, as vice president-elect. She will succeed Gilles A. Daigle next year. Elected to the ASA executive committee were Donna L. Neff (Boys Town National Research Hospital)

and Henrik Schmidt (MIT). Both Neff and Schmidt will serve three-year terms.

IN BRIEF

Thirty-meter mirror. Astronomers at the University of California, Santa Cruz and at Caltech are planning a 30-meter optical and infrared telescope, the California Extremely Large Telescope, which they hope to see running in 10–15 years. First, though, the UCSC-led team has to come up with a design to make CELT

Web Watch

<http://ojsps.aip.org/ARLO>

"Wavelet Processing for Wideband Scattering Function Estimation" by Penn State's Lora Weiss is the first paper in the inaugural volume of **Acoustic Research Letters Online**. Published by the Acoustical Society of America,

ARLO (as the journal is more familiarly known) accepts papers in all fields of acoustics and can accommodate animated figures and audio clips.



<http://www.iwm.org.uk/online/enigma/eni-intro.htm>

The cracking of Germany's Enigma codes in World War II is the subject of an extensive online exhibit at Britain's Imperial War Museum. Among the topics covered by the multimedia exhibit is Colossos, the world's first programmable electronic digital computer, which helped crack even the most sophisticated German codes.

<http://www-sci.lib.uci.edu/HSG/Ref.html>

Jim Martindale's **Reference Desk** of online resources, which is hosted by the University of California, Irvine, is encyclopedic in its scope. Mathematics, physics, and chemistry are included, but so are fashion, pets, and business. Physicists might find especially useful the collection of calculators and science data tables.

To suggest topics or sites for Web Watch, please e-mail us at ptwww@aip.org.

Compiled by **CHARLES DAY**