

Bell Labs Names Murray to Head Physical Research Lab

On 16 June, Cherry Murray became director of the Physical Research Laboratory at Bell Laboratories in Murray Hill, New Jersey. Murray



CHERRY MURRAY

is the first woman to head the lab in its 72-year history. She succeeds Horst Stormer, whose five-year tenure as director included the difficult period leading up to and following Bell Labs' being split off from AT&T last year. The split resulted in Bell's becoming the R&D arm of Lucent Technologies, a new communications and computing systems design and manufacturing company.

As director, Murray is in charge of about 100 scientists. "The most important thing for me is to provide strong support for long-term research," says Murray. "And the main challenge will be to look at technologies 10 to 20 years in the future, and to tie them in with work at Lucent today." Murray plans to follow a course similar to Stormer's, and the transition promises to be smooth. "Horst was excellent, and Cherry brings the same strengths," said one long-time Bell researcher. "No one sees this [change] as something major."

Murray joined Bell Labs 19 years ago as a freshly minted PhD from MIT. She started out working in low-temperature physics, has since worked in several different areas, including light scattering, surface physics and flux lattices in superconductors, and for over a decade has used colloids to model condensed matter systems. Since 1987, Murray has, in successive stints, headed three of the nine research departments now in her charge.

Stormer, who has been at Bell Labs for 20 years, is perhaps best known to physicists as the codiscoverer of the fractional quantum Hall effect. One reason

he is stepping down, he says, is to "crank up my research, which had certainly suffered. I just wasn't around enough." For now, Stormer will remain at Bell Labs, but many of his colleagues are betting he'll take a university faculty position somewhere. "I don't really know what I want to do," he admits. "I'm thinking very broadly—I'm doing soul searching. You can call it a midlife crisis," he laughs.

TONI FEDER

Goldston Is Named Director of PPPL

Robert J. Goldston, a professor of Rastrophysical sciences at Princeton University, became the director of the Department of Energy's Princeton Plasma Physics Laboratory (PPPL) at the beginning of July. A longtime PPPL affiliate, he succeeds Ronald Davidson, who stepped down on 1 January (see PHYSICS TODAY, January, page 54).

Goldston arrived at Princeton in 1972 as a graduate student, and after earning his PhD in 1977, he joined the lab's research staff, pursuing experimental and theoretical research on high-temperature plasmas. He has participated in a range of PPPL experi-

Sagan on Mars

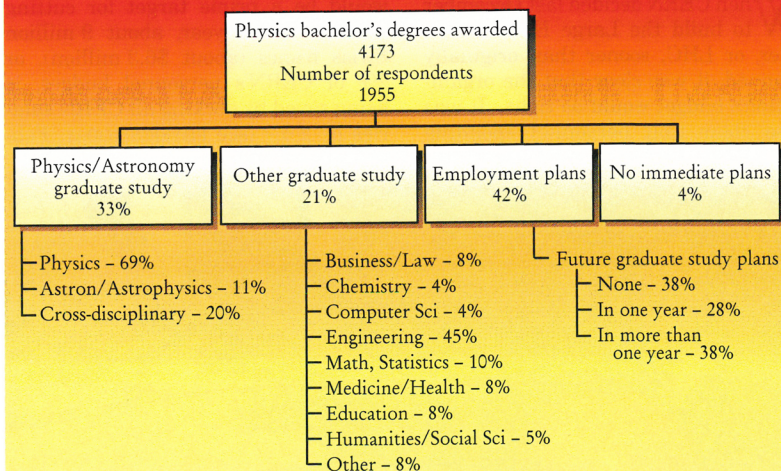
Shortly after the successful 4 July landing of NASA's Mars Pathfinder, the lander module was named the Sagan Memorial Station, in honor of the late Carl Sagan. Sagan was on research teams of numerous planetary missions, including the 1971 Mariner 9 orbiter and the 1976 Viking mission to Mars. In the spirit of Sagan's success as a science popularizer, the flood of information and images currently pouring out of Ares Vallis is being accessed on the World Wide Web by millions and millions of people. A list of mirror sites maintained around the world is provided at <http://mpfwww.jpl.nasa.gov/>.

ments, including heading up the physics program division for the Tokamak Fusion Test Reactor, the 15-year-long experiment that was shut down for good in April. More recently, he has worked on the National Spherical Torus Experiment, now under construction at PPPL. That machine, designed to explore more compact approaches to fusion power generation, "exemplifies a renewed emphasis on innovative plasma confinement concepts, both at PPPL and in the overall US fusion program," Goldston says.



HORST STORMER

Postgraduation Plans of the Class of 1996



What does one do with a bachelor's degree in physics? According to an American Institute of Physics survey, most of the members of the class of 1996 have opted for graduate school, not necessarily in physics, but in a wide range of fields, including engineering, business and education; cross-disciplinary areas, such as medical and health physics, are gaining popularity. Among those who entered the job market after graduation, industry was the top employer, followed by the military, government and high schools; the median starting salary for those who found full-time work was \$31 000. These and other data on physics and astronomy graduates can be found in the 1996 *Bachelor's Degree Recipients Report*, available from AIP, Education and Employment Statistics Division, One Physics Ellipse, College Park, MD 20740; e-mail stats@aip.org.

As director of PPPL, Goldston will preside over a smaller organization than did Davidson. Funding for the lab is expected to fall by 15% in fiscal year 1998, and in anticipation, the lab has been making staff cuts. Since April, about 80 employees have accepted "voluntary separation" offers, and on 1 July, the same day that Goldston took office, another 35 workers were laid off; eventually, the staff will be reduced by more than one-fourth, to about 400.



ROBERT GOLDSTON

Goldston believes that fusion plasma physicists have not done a good enough job of explaining their work to the broader physics community. One of his aims, he says, will be to find ways to better convey that the field is "both scientifically vibrant and important for society."

JEAN KUMAGAI

IN BRIEF

In May the Russian Foundation for Basic Research celebrated its fifth year. Russia's only funder of basic science that bases awards on peer review, the RFBR supports about a third of all civilian basic research in that country, and accounts for about 6% of the total science budget (up from 4% five years ago). "Everyone seemed to want to claim credit for the idea of establishing the foundation. That speaks for its success," remarked the US Civilian Research and Development Foundation's Gerson Sher, who attended the celebration in Moscow.

In June the University of Pittsburgh announced the establishment of a postdoctoral training program in radiation science, funded through a five-year, \$5 million grant from the Department of Energy. Pittsburgh's Niel Wald, who is directing the program, says the goal is to train people "of diverse scientific and medical backgrounds who are able to deal with a variety of problems in radiation science." There is a need for such people, Wald says, because many of today's radiation experts were trained during the cold war and are now retiring, and too few new researchers are being groomed to replace them. Postdocs, who must be US citizens or permanent residents, will spend one year in the classroom and a second year in the field, doing research at such places as Chernobyl, Hiroshima or one of the DOE cleanup sites. The first class of

six will be admitted this fall. For further information, contact Wald, phone 412-624-3155, fax 412-624-3040, e-mail wald@vms.cis.pitt.edu.

Instead of becoming the European Physical Society's secretary-general this month as scheduled, Jeffrey Williams has decided to leave the organization. Consequently, Gero Thomas, who has been secretary-general for over 20 years and had planned to retire, now says he'll stay on for an additional 7-12 months. To replace Williams, EPS is advertising locally for an administrative director, a new post for which being a physicist is not a requirement. In other EPS news, *Europhysics News* has a new editor. He is Tobias Chapman, who earned a bachelor's in physics from the University of London's Imperial College of Science, Technology and Medicine and was

a freelance journalist in London for six years before joining EPS in June.

The Optical Society of America has created an award in honor of Nick Holonyak Jr, inventor of the first practical light-emitting diode. In addition to work on semiconductor-based LEDs and lasers, Holonyak's long career in quantum electronics included early work on the optical properties of III-V alloy compounds. Educated at the University of Illinois at Urbana-Champaign, he is now the John Bardeen Professor of Electrical and Computer Engineering and Physics there and a member of the university's Center for Advanced Study. The \$1500 award, to be given annually at one of OSA's conferences starting next year, will recognize contributions to optics based on semiconductor materials, including basic science and technological applications. ■

Web Watch: Specialized Databases

This month we look at four sites of a technical nature that may be of use to students and researchers. Content includes physical and chemical reference data; statistical analysis software; databases on atomic, molecular, plasma and space physics; and thermodynamic computational and educational aids.

► <http://www.nist.gov/srd/online.htm>

The NIST Online Reference Databases include a section on physical reference data such as physical constants, units and conversion factors; atomic and molecular spectroscopy; nuclear physics; and condensed matter physics. The site also includes the NIST Chemistry WebBook, which has thermodynamic data for over 5000 compounds and ion energetics data for over 12 000 compounds. Under development are pages of data on collision cross sections and electron transport coefficients for gases used in the manufacturing of semiconductor devices.

► <http://www.astro.psu.edu/statcodes/>

StatCodes provides links to over 200 sites providing free computer programs implementing statistical methods that may be useful to astronomers and physicists. Methods include time series analysis, multivariate analysis, nonparametric statistics, correlation and regression, Bayesian methods, image analysis, spatial statistics, visualization tools and interactive Web tools. Some codes are single subroutines (usually in Fortran or C), while others are full packages with documentation. The contents of StatCodes is searchable through the Astronomical Software Directory Service (<http://doright.stsci.edu/asds/docindex.html>). StatCodes welcomes links to new codes, particularly those written by astronomers and physicists.

► <http://espsun.space.swri.edu/spacephysics/home.html>

The Space Plasma Physics Section of the Southwest Research Institute in San Antonio, Texas, provides pages with a comprehensive list of space physics resources (spacephysics/www.space.html), a list of databases in atomic, molecular and plasma physics (spacephysics/www.atomic.html) and a list of current contents of journals (spacephysics/www.journal.html). Links provide searching of the site via TIPTOP (The Internet Pilot to Physics) and AltaVista.

► <http://www.uic.edu/~mansoori/TRL.html>

Thermodynamics links are provided in abundance by two pages of the Thermodynamics Research Laboratory at the University of Illinois at Chicago. The first (mansoori/Thermodynamic.Data.and.Property.html) lists data and sites useful for performing calculations, particularly those needed in engineering applications. The second (mansoori/Thermodynamics.Educational.Sites.html) provides numerous links to educational sites on the subjects of classical and statistical thermodynamics and mechanics.

► All links mentioned in Web Watch are included on PHYSICS TODAY's home page, <http://www.aip.org/pt/>. If you have suggestions for other topics or sites to be covered in Web Watch, please e-mail them to ptwww@aip.acp.org.

Compiled by GRAHAM P. COLLINS

