

following awards at its 125th meeting, held in Boise, Idaho, in August.

The Robert A. Millikan Award, given for notable and creative contributions to physics teaching, went to **Simon George**, a professor of physics at California State University, Long Beach. AAPT recognized George for, among other things, his influence on learning and teaching physics worldwide.

Barry C. Barish director of the Laser Interferometer Gravitational Wave Observatory and the Ronald and Maxine Linde Professor of Physics at Caltech, received this year's Klopsteg Memorial Lecture Award. At the meeting, Barish presented his lecture entitled "Catching the Waves with LIGO."

Thomas L. O'Kuma, lead teacher of physical sciences at Lee College in Baytown, Texas, received the Excellence in Undergraduate Physics Teaching Award, and **Lowell G. Herr**, a recently retired physics teacher at the Catlin Gabel School in Portland, Oregon, was given the Excellence in Pre-College Teaching Award. AAPT cited both for their "many contributions to the teaching of physics and to the professional growth of physics teachers."

Frey Voted President-Elect of AAPM

Medical physicist **G. Donald Frey** of the Medical University of South Carolina (MUSC) in Charleston will be the president-elect of the American Association of Physicists in Medicine for 2003. He will begin his term on 1 January 2003, becoming president in 2004 and chair of the AAPM board in 2005. The current president-elect, **Martin S. Weinhaus**, will take the presidency this January, succeeding **Robert G. Gould**, who will become chair of the board.



FREY

In his candidate statement, Frey said that he plans to "continue efforts to make the American Association of Physicists in Medicine and the medical physics profession more visible to the public, medical and scientific professionals, and political leaders." He added that perhaps "this increased visibility will help recruit new physicists into the profession." He also conveyed his interest in increasing AAPM's role

in developing regulations and accreditation programs.

Frey received a BS in physics with a minor in philosophy from Canisius College in Buffalo, New York, in 1965 and a PhD in nuclear physics from the University of South Carolina in 1970. Following brief service in the US Army, Frey joined MUSC in 1971, rising through the ranks from associate professor to his current position as professor of radiology and director of diagnostics physics. His primary area of interest is medical physics education.

In other AAPM election results, **David R. Pickens** (Vanderbilt Medical Center, Nashville, Tennessee) will take office on 1 January as secretary for a two-year term. Elected to the AAPM board of directors for three-year terms are **Julie E. Dawson** (Saint Louis University), **Benedick A. Fraass** (University of Michigan), **Michael G. Herman** (Mayo Clinic in Rochester, Minnesota), and **Timothy D. Solberg** (UCLA).

Busch-Vishniac to Lead ASA

Ilene Busch-Vishniac, who was elected president-elect of the Acoustical Society of America, took office on 5 June 2002, succeeding **Richard Stern**. Busch-Vishniac, dean of the G. W. C. Whiting School of Engineering at Johns Hopkins University in Baltimore, Maryland, will become president of the society in 2003.

"As president I will focus on the two biggest challenges ASA faces: balance and vitality," Busch-Vishniac said. "The society traditionally has been well served by its great breadth in terms of discipline coverage and type of member (academic and practitioner). If ASA is to succeed in the future, it must maintain this breadth and balance the needs of various members with equitable distribution of precious resources. It must send a clear message of valuing all of its members equally." She added that ASA must recognize that its membership is aging and "either face its demise in a relatively short future or craft



BUSCH-VISHNIAC

ways to engage more junior acousticians in its activities." She noted that many opportunities exist to create new programs that will target acousticians at early stages of their careers and significantly enhance the value of ASA to them. "By focusing on issues of balance and vitality, we can ensure the preeminence and financial viability of the ASA for many years to come."

Busch-Vishniac earned a BS in physics and a BA in mathematics from the University of Rochester in 1976, and received her PhD in mechanical engineering from MIT in 1981. Before joining the University of Texas at Austin in 1982, she had been a member of the technical staff in the acoustic research department at Bell Labs in Murray Hill, New Jersey. At UT Austin, she taught mechanical engineering and was associate chair for academic affairs from 1991 to 1994. In 1998, she moved to her current position at Johns Hopkins. Her research focuses on noise control and transduction. Her area of specialization is the application of system dynamics techniques to the special problems of sensors and actuators of multiple energy domains.

Also taking office will be **Steven M. Brown** (Steelcase Inc in Caledonia, Michigan) and **Ronald A. Roy** (Boston University) for three-year terms as members of the ASA executive council and **Anthony A. Atchley** (Pennsylvania State University) for a one-year term as vice president-elect.

IN BRIEF

In July, the Observatoire de la Côte d'Azur in Nice, France, announced the winner of its 2002 Médaille de l'ADION (Medal of the Association for the International Development of the Observatory of Nice). **Margaret J. Geller**, senior scientist at the Smithsonian Astrophysical Observatory in Cambridge, Massachusetts, is being recognized for her "eminent contributions to the study of the structure and evolution of systems of galaxies." She will receive the medal during a ceremony to be held in Nice next spring.

In August, **Maxim Marchevsky**, previously a postdoctoral researcher at the NEC Research Institute in Princeton, New Jersey, joined the physics faculty at Syracuse University as an assistant professor of physics.

The UK's Royal Astronomical Society presented three medals in 2002. **Leon Mestel** received the Gold Medal in Astronomy for his work on a variety of stellar and galactic problems, especially ones involving magnetic fields. He is an emeritus professor of theoretical astrophysics at the University of Sussex. The RAS presented its Gold Medal in Geophysics to **John Arthur Jacobs**, who retired as a professor of geophysics from the University of Cambridge in 1983. The society noted that he is "probably best known for his work on the Earth's core and the properties and dynamics of the Earth's magnetic field." **Douglas Gough**, director of the Institute of Astronomy at the University of Cambridge, received the Eddington Medal. The citation notes that his "achievements in clarifying the properties of stars and stellar oscillations make him an eminently appropriate recipient."

After 21 years at AlliedSignal (now Honeywell International) in Morristown, New Jersey, most recently as a senior principal scientist, **Sanjeeva Murthy** joined the University of Vermont last month as an associate professor of physics.

At its annual meeting this month in Salt Lake City, Utah, the Society of Exploration Geophysicists, headquartered in Tulsa, Oklahoma, will be presenting the Maurice Ewing Medal—the society's highest award—to **Gordon F. West**. The society is honoring West, emeritus professor in the University of Toronto's physics department and a consultant to several mineral exploration companies, for his "important contributions to the science of geophysics, both personally and through his supervision of generations of graduate and undergraduate students." West codeveloped, with Yves Lamontagne, the University of Toronto electromagnetic method, which "has been credited for the discovery of several important base-metal deposits," and that he coauthored, with Fraser Grant, the textbook *Interpretation Theory in Applied Geophysics* (McGraw-Hill, 1965), which "has been used to teach thousands of geophysics students over the past 37 years."

In July, **Alan E. Waltar** became the director of nuclear energy at the Pacific Northwest National Laboratory in Richland, Washington. He retired in June from Texas A&M University as head of the nuclear engi-

neering department, a position he had held since 1998.

Leo P. Kouwenhoven and **Ullrich Steiner** shared this year's Sackler Prize in the Physical Sciences, which carried a cash award of \$50 000. The prize's subfield for 2002 was engineered materials. Tel Aviv University, which presented the award last May, recognized Kouwenhoven for his "seminal contributions to our understanding of electronic states and charge

transport in submicron systems." He is a professor of physics in the department of nanoscience at the Delft University of Technology in the Netherlands. TAU acknowledged Steiner for "innovative discoveries in the analysis and control of the structure and shape of thin polymeric films at the submicron scale." He is a professor of polymer chemistry at the University of Groningen in the Netherlands and is also affiliated with the university's Materials Science Center.

OBITUARIES

Nikolai Gennadievich Basov

Nikolai Gennadievich Basov died of heart failure in Moscow on 1 July 2001. A Nobel Prize winner, he was one of three founders, together with Aleksander Prokhorov and Charles Townes, of a new branch of science and technology known as quantum electronics, or laser physics.

Basov was born on 14 December 1922 in Usman', a small Russian town in the Lipetsk region. During his last years in school, the Soviet Union entered World War II, and he served in the military as a student of the Military Medical Academy (1941–43) and as an officer of a chemical defense battalion in the First Ukrainian Front (1944–45). In 1946, he enrolled at the Moscow Engineering Physics Institute and graduated in 1950 as an engineer-physicist. He completed his PhD thesis in 1959 under the guidance of Michael Leontovich and Aleksander Prokhorov and received his Candidate of Science degree from the P. N. Lebedev Physical Institute. He eventually worked his way up from junior scientist to director of the Lebedev Institute, maintaining an affiliation there until the last day of his life.

In 1952, Basov and Prokhorov were the first to demonstrate, based on a theoretical analysis, the feasibility of constructing generators and amplifiers of electromagnetic waves using the phenomenon of stimulated transition in quantum systems with population inversion of levels. As early as 1955, they proposed a highly effective principle for achieving population inversion by pumping a three-level system, a technique that is now widely used in various lasers and spectral ranges. Others applied this novel principle to fundamentally new



NIKOLAI GENNADIEVICH BASOV

devices such as low-noise microwave amplifiers and generators (masers).

In 1956, Basov received his DSc degree for his thesis entitled "A Molecular Oscillator." His thesis was a notable accomplishment in the scientific life of the Lebedev Institute: His fundamental findings were so brilliant and unexpected that the most authoritative scientists were invited as reviewers. Symbolically, Il'ya Frank, a winner of the 1958 Nobel Prize in Physics, played the decisive role with his positive review. In 1964, Basov, Prokhorov, and Townes won the Nobel Prize in Physics for fundamental investigations in the field of quantum electronics, which led to the discovery of masers and lasers.

In his thinking, Basov apparently followed a logic that contrasted with thinking based on the most simple procedure, that is, moving from basic physics, as outlined in textbooks, to more complex concepts. Sometimes it seemed that he followed the opposite