IN BRIEF

Boris L. Altshuler, Arkadii G. Aranov, David E. Khmelnitskii, Anatoly L. Larkin and **Boris Z. Spivak** have won the 1993 Hewlett–Packard Europhysics Prize. In giving the prize, the European Physical Society cited the winners for their "pioneering theoretical work on coherent phenomena in disordered conductors." Altshuler is a professor of physics at MIT. Aranov is a department head at the Ioffe Physico-Technical Institute in St. Petersburg, Russia. Khmelnitskii is a senior research fellow at Trinity College of Cambridge University and a staff member of the Landau Institute for Theoretical Physics in Moscow. Larkin is a department head at the Landau Institute and a professor of theoretical physics at Moscow State University. Spivak is a physics professor at the University of Washington in Seattle.

William A. Bardeen is now the head of theoretical physics in the physics research division of the Superconducting Super Collider Laboratory. He was formerly head of theoretical physics at Fermilab.

Steven L. Garrett, a physics professor at the Naval Postgraduate School, was a winner of one of the 1993 Rolex Awards for Enterprise. He was recognized for "developing a new system of refrigeration using sound waves that could end the use of ozone-destroying chlorofluorocarbons."

Federico Capasso has won the 1993 New York Academy of Sciences Award. His citation recognizes "his seminal contributions to semiconductor science and its applications through his pioneering and innovative use of bandgap engineering." He is head of the quantum phenomena and device research department at AT&T Bell Laboratories.

In October **E. W. Schlag** will receive the Gold Honorary J. Heyrovsky Medal of the Czech Academy of Sciences. He is a professor of physical chemistry with the Institute of Physical and Theoretical Chemistry of the Technical University of Munich.

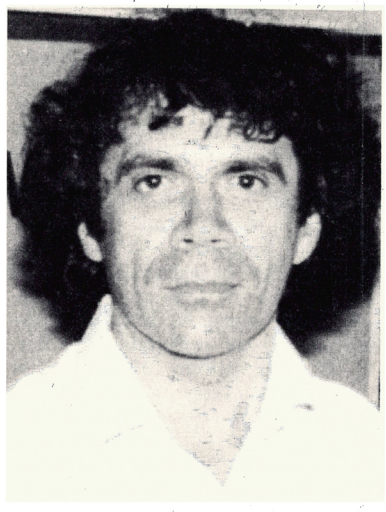
OBITUARIES

Veniamin Chebotayev

The sudden death of Veniamin Chebotayev on 2 September 1992, at age 54, was a tragic loss for the international laser science community, and particularly for his colleagues and numerous students at the Institute of Laser Physics in the Academgorodok near Novosibirsk, Russia. The founder and the first director of this institute, Chebotayev was full of energy and ideas. The range of his scientific interests and publications was astonishing—from atomic physics to the applications of lasers in medicine.

Chebotayev was born in the USSR and educated as an electrical engineer, earning his degree in 1960 from the Novosibirsk Electrotechnical Institute. His bright mind enabled him to become an original research physicist. In 1962 he became a junior research worker at the Institute of Radiophysics and Electronics of the Siberian branch of the USSR Academy of Sciences. He was the first researcher in Siberia to build a laser.

Chebotayev was one of the founders of a new trend in spectroscopy: nonlinear Doppler-free high-resolution spectroscopy. First, he made a great contribution to the development of saturation spectroscopy and the application of the inverted Lamb dip for frequency stabilization. For a long time his laboratory held the world record for accuracy of frequency stabilization in an He–He laser with a CH saturation absorption cell—better than 3×10^{-12}. Second,



Veniamin Chebotayev

with his coworkers he elaborated the method of Doppler-free two-photon spectroscopy, which today is the most efficient method of ultrahigh-resolution laser spectroscopy. Third, he suggested modifications of the Ramsey separated-field technique that allowed it to be applied to an optical region when the range of interaction of particles with the field was much longer than the wavelength of the light. In recent years he did pioneering work in atomic interference in laser beams, the most active field in atomic physics.

Chebotayev and I became friends in 1968, and we worked together on high-resolution laser spectroscopy. We jointly wrote the monograph *Nonlinear Laser Spectroscopy* (Springer-Verlag, 1977), which was published on the recommendation of Arthur Schawlow, who had paid attention to our work on Doppler-free laser spectroscopy. In 1990 a new edition of this book, entitled *Nonlinear Laser High-Resolution Spectroscopy*, was published in Russian by Nauka; we were working on an extended English version of this book at the time of Chebotayev's death.

Veniamin Chebotayev had a bril-