

WE HEAR THAT

Bell Labs for the remainder of his career, becoming head of several research departments: condensed state physics in 1986, theoretical physics research in 1990 and semiconductor physics research in 1992.

Michael Schluter published more than 200 technical articles with more than 100 collaborators and edited numerous scientific books. His research focused on the electronic structures of surfaces, interfaces, defects and adsorbates in a broad range of materials. With his colleagues, he developed the self-consistent Green's function method, which became a highly successful standard tool for calculating the electronic structures of defects. Studies of pseudopotentials, density functional theory, quasiparticle excitations, semiconductor clusters, high- T_c oxides and fullerenes attest to the enormous breadth of his scientific interests and theoretical repertoire.

Michael's exceptional ability both to communicate theoretical ideas to experimentalists and to convey to theorists the essence of experimental results was highly valued and made him a sought-after speaker at scientific meetings around the world. Fluent in three languages, he was the mentor for a group of talented young students from around the world who became successful scientists in their own right.

Michael Schluter was diagnosed as having brain cancer in March 1992. He approached his disease as he approached every scientific problem: Get all the information possible, enlist the cooperation of anyone who might be able to help, do everything possible to solve the problem, and communicate the progress being made. He remained a remarkable role model to the end—showing dignity and courage as he dealt with the illness that finally took his life.

GENE A. BARAFF
HORST L. STORMER
AT&T Bell Laboratories
Murray Hill, New Jersey
MARVIN L. COHEN
University of California, Berkeley

Gabriel Bourgois

Our colleague and friend Gabriel Bourgois died in a mountain accident on 22 February 1993. He was director of research at the Centre National de la Recherche Scientifique and had just been appointed director of the Nançay Radio Astronomy Observatory.

Gabriel was born in Paris on 6 September 1939. He graduated in physics from the Ecole Normale

Supérieure de Saint-Cloud in 1964 and completed his PhD in radio astronomy at the Observatoire de Meudon in 1969.

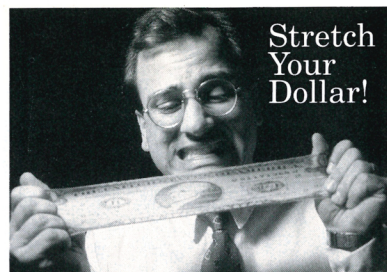
Much of Gabriel's professional life was devoted to the study of radio propagation in random media, first in the solar wind and later in the interstellar plasma. Following his PhD thesis, which was on intensity scintillations resulting from the passage of cosmic radio source signals through the solar wind, he published the first such observations at centimeter wavelengths, using the Nançay telescope at 11 cm. In 1974 he began at Nançay a continuing study of the frequency dependence of solar wind scintillations. The spectra he obtained provided an unbiased measure of the level of turbulence near the Sun at which the scintillations are saturated. These observations showed how solar wind turbulence depends on solar latitude and how the turbulence evolves during the solar activity cycle.

In 1983 Gabriel and colleagues from the University of California, San Diego, realized that slow variations in the apparent intensities of pulsars are not intrinsic to the pulsar but are caused by refractive scintillation in the interstellar medium. They also predicted that refractive scintillation would be seen for many other sources, in particular meter-wavelength variable sources and the OH and H_2O masers. This prediction was quickly confirmed, and it is now known that refractive scintillation has an important effect on many radio astronomical observations.

In 1985 Gabriel began a continuing program of precise timing observations of millisecond pulsars at Nançay using an innovative receiver based on a swept local oscillator developed by Francois Biraud. These observations, which have reached a precision of 0.3 microseconds, are a valuable probe of neutron star physics, interstellar plasma turbulence and even gravitational radiation. Gabriel was deeply involved with a project to upgrade the Nançay telescope. His colleagues will carry this project through, in his memory.

Gabriel was a very open and forthright person. If you met him once, you felt you had known him forever. Gabriel has left us, but he will remain present in our memory.

ERIC GERARD
Nançay Radio Telescope Observatory
Meudon, France
WILLIAM COLES
BARNEY RICKETT
University of California, San Diego ■



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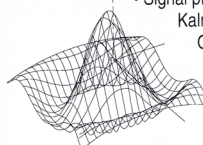
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