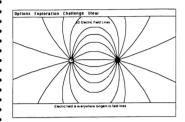
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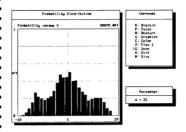
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group; and a mathematical study of the quantum intersection rings.

From spin glasses to number theory, his curiosity and his knowledge were encyclopedic and universal. In 1980 he published with Jean-Bernard Zuber a treatise on quantum field theory that became a classic for all theory students. His two-volume work on statistical field theory, written with Jean-Michel Drouffe, is also a rich source of original information.

Itzykson was an exceptionally inspiring teacher and a driving force within the whole theory group at Saclay. Claude Itzykson had a uniquely warm and enthusiastic personality, which gained him many friends throughout the world. His friends and colleagues will miss him with great sorrow.

EDOUARD BRÉZIN

Ecole Normale Supérieure Paris, France

## Willy Werner van Roosbroeck

Willy Werner van Roosbroeck died on 22 June 1995 at his home in Summit, New Jersey, of complications from prostate cancer. Born in Antwerp, Belgium, in 1913, Willy came to the US with his parents in 1916. He received the AB in 1934 and the MA in physics in 1937, both from Columbia University.

Willy was a member of the technical staff of what is now AT&T Bell Laboratories from 1937 through 1978, first in New York City and then, starting in 1941, at Murray Hill, New Jersey.

During his early years at Bell Labs, Willy did pioneering work on low-defect high-frequency deposited protolithic carbon resistors. During the war years, his projects included the development of a theory to describe the transient behavior of infrared thermistor bolometers.

During the late 1940s he worked on the electron—hole transport theory in germanium, and with William Shockley published a frequently cited paper on the subject. In the 1950s he turned to carrier transport theory in general. Later, he made major theoretical contributions to studies of solar batteries, transport in amorphous semiconductors and relaxation semiconductors—materials in which the dielectric relaxation time exceeds the free carrier lifetime.

The study of relaxation semiconductors was Willy's greatest passion, extending from 1959 to his death. His predictions, made in 1968, were experimentally confirmed, using III–V compounds, in the early 1970s through his collaboration with H. Craig Casey Jr

and Hans J. Queisser. Recently this work has been rediscovered and extended, as high-resistivity semiconductors and low-temperature devices have found wider application. Willy was working on a review paper about relaxation semiconductors at the time of his death.

Willy's friends will remember him for his mathematical agility, facility with languages, love of music, fascination with photographic optics and passion for collecting.

JAMES JOSENHANS Berkeley Heights, New Jersey

#### Frank Evans Myers

he physics community lost an ardent L builder, teacher, administrator and editor on 31 May 1995, when Frank Evans Myers died at age 88 at his home in Ashland, Oregon. He had retired in 1970 from Argonne National Laboratory and the editorship of the Journal of Applied Physics and Applied Physics Letters. Born in Portland, Oregon, Myers received a BA in physics in 1927 from Reed College. After receiving a PhD from New York University in 1930, he served on the faculty there for 16 years, although he spent the years 1941-46 as a ballistics physicist at Frankford Arsenal in Philadelphia. In 1930 Myers and Richard T. Cox, along with colleagues Robert D. Huntoon and C. T. Chase, found enough money to build a Cockroft-Walton high-voltage generator for nuclear reaction studies and an electron Van de Graaff generator for electron scattering studies. The latter was used in the first successful experimental demonstration of electron polarization by double scattering of high-energy electrons.

In 1946 Myers became head of the physics department at Lehigh University. Alumni remember being awed by his lecture demonstrations. Myers built a strong undergraduate program in engineering physics and brought a nascent PhD program in physics to national prominence in the 12 years before he left to become associate director of education at Argonne National Laboratory. There his chief concern was the training of new technicians in the burgeoning nuclear power industry.

In 1965 he assumed the editorship of the Journal of Applied Physics and Applied Physics Letters, a position he held for six years. Myers understood that the proper role of a scientific editor is not simply to act as an impersonal judge of the validity of the papers submitted to him, since this is often not obvious, but to find the just balance between an author's right to be heard and the restraints on publication required by the scientific community.

Over the years, Frank kept in touch with many students he taught and encouraged. He is remembered fondly.

RAYMOND J. EMRICH Bethlehem, Pennsylvania LESTER GUTTMAN Chicago, Illinois CLIFFORD G. SHULL Cambridge, Massachusetts

### Igor F. Schegolev

Igor Fomich Schegolev died in Noginsk, near Chernogolovka, Russia, on 22 June 1995 at the age of 66. His death followed a heart attack after routine surgery. Igor was born in Baku, Azerbaijan, and graduated from Moscow M. V. Lomonosov State University in 1952. He earned his PhD in physics in 1961 from the Kapitsa Institute for Physical Problems under the supervision of Peter Kapitsa.

In 1963 Igor started work at the Institute of Chemical Physics in Chernogolovka, near Moscow. In 1965 he developed an interest in synthetic metals and organized a group of physicists and chemists devoted to this problem. In 1986 he became head of a laboratory in the Institute of Solid State Physics, also in Chernogolovka, working on high-temperature superconductors.

Igor played a dominant role in starting and developing a new branch of solid-state physics that deals with synthetic metals made of organic molecules. Stimulated by a paper by William Little of Stanford University, Igor's group hoped to find high-temperature superconductors in this family of materials. Igor, working with Eduard Yagubakii, chose to study organic crystals, rather than polymers. The first class of crystals they obtained and studied was based on the organic molecule TCNQ. Igor and his colleagues showed that these crystals turned out to be semiconducting at low temperatures due to the almost-one-dimensional character of electron motion in these systems. The experimental methods to study TCNQ salts developed at Chernogolovka became classical in the physics of organic crystals, and a review paper in Physica Status Solidi by Igor became a handbook for experimentalists in this field.

In 1976 Igor's group synthesized the first organic metal based on an unclear organic molecule. However, this compound, (TSeT)2Cl, transforms into a metallic state only under pressure. In 1983 they made the first actual quasitwo-dimensional superconductor based on BEDT-TTF at ambient pressure, with a  $T_c$  of 1.3 K. In 1985 this same salt was transformed into another crys-



IGOR F. SCHEGOLEV

tal form with a  $T_c$  of about 8 K.

During their investigation of the electronic structure of BEDT-TTF salts, Igor and his colleagues observed a new type of oscillation of the classical part of the magnetoresistance. These oscillations were connected with quasitwo-dimensional or quasi-one-dimensional types of Fermi surfaces of the studied objects.

Igor was a genuine human being who chose to live with dignity, doing science and helping other people to live in the same way. Although it was natural in the West, living that way was not easy in the Soviet Union, where sincerity of expression and pursuit of career were essentially incompatible. Because he expressed his disagreement with the Soviet invasion of Czechoslovakia in 1968, Igor found that his path to higher positions was closed and his access to travel abroad became more difficult. His worldwide renown counted for little in those days.

It was only a few years before his death that Igor received the Academician title and many high-level administrative positions. But he did not use his title or status to get more privileges than his collaborators. There was not one false note in his life. From his very youth to his last days, Igor remained true to himself. People who knew him remain immensely thankful to Igor Schegolev for that.

LEV BULAEVSKII Los Alamos National Laboratory Los Alamos, New Mexico RIMMA SHIBAEVA Institute of Solid State Physics Chernogolovka, Russia RUSTEM LYUBOVSKII Institute of Chemical Physics Chernogolovka, Russia ■