analyzer orientations so rapidly that information could not be transmitted from one analyzer to the other except superluminally (which is forbidden by relativity theory). Nevertheless the correlations they observed contradicted Bell's inequality—and therefore the entire family of local-hidden-variables theories—and agreed precisely with the predictions of quantum mechanics.

Aspect has been a member of the Collège de France since 1984. He is currently investigating atom-stopping with lasers at the Laboratoire de Spectroscopie Hertzienne de l'École Normale Supérieure (Paris).

On accepting the award, which consists of a sculpture and a prize of $16 000, Aspect noted that when he first discussed the concept behind his experiment with John Bell in 1975, Bell quipped, "Do you have a permanent position?"

in brief

Patrick Thaddeus, at present staff scientist of the Institute for Space Studies and adjunct professor of physics at Columbia, will join the Harvard–Smithsonian Center for Astrophysics this summer as professor of astronomy and applied physics.

Arthur H. Guenther, chief scientist of the Air Force Weapons Laboratory, Kirtland Air Force Base, and chairman of New Mexico's Science and Technology Advisory Committee, last December received the Distinguished Executive Rank, the nation's highest award for career executives, for his work in directing basic research at the Weapons Lab. Guenther became a physicist at Kirtland in 1957, after receiving his PhD in chemical physics from Pennsylvania State University; his research has focused on laser-induced damage and on pulsed power technology. He was named chairman of the Science and Technology Advisory Committee in January, having served as vice-chair since the committee's inception in 1983.

obituaries

Evgenii Mikhailovich Lifshitz

The world of physics suffered a heavy loss on 29 October 1985 with the death of Evgenii Mikhailovich Lifshitz.

Lifshitz was born in Kharkov, in the Ukraine, on 21 February 1915. In 1933 (at 18!) he graduated from the Kharkov Polytechnic Institute. He worked at the Kharkov Physicotechnical Insti-

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tute from 1933 until 1938, and at the Institute of Physical Problems in Moscow from 1938 until his death.

Lifshitz's whole life was devoted to physics: At 19 he published his first scientific paper; a few days before his death he was busy with the new edition of *Hydrodynamics*, one of the volumes of the famous Landau and Lifshitz Course in Theoretical Physics. While in the hospital, preparing for the operation that ended so tragically, he made arrangements for the book's proofs to be brought to the hospital. He could not imagine that sickness could be a reason for delay.

The combination of names "Landau and Lifshitz" is fraught with tremendous meaning for several generations of the world's physicists but, naturally, particularly for those in the Soviet Union. Landau and Lifshitz symbolized an entire epoch in physics. They wrote their treatise on theoretical physics not merely with the aim of teaching theoretical physics: The Landau and Lifshitz course constitutes a research style that is simultaneously mathematically rigorous and exclusively physically oriented. Theoretical physics is, in practice, too vast to be comprehended in its entirety, at least by an individual—there are no more encyclopedists. But Landau and Lifshitz covered all of theoretical physics, or, more accurately, defined the very meaning of the concept "theoretical physics." Only a most meticulous choice of material and an extremely pragmatic exposition will allow the theoretical-physics student to find the shortest path to the forefront of the science and to solve hitherto unsolved problems; an amazing feature of the course is the absence of superfluous material.

Lifshitz devoted many years to developing the theoretical-physics course, even finding the strength to continue this most difficult task for 23 years

after Landau's tragic departure from physics in 1962 and death in 1968. But Lifshitz was a creative scientist all his life. He obtained many basic results in various branches of modern physics: magnetism, second-order phase transitions, the theory of superfluid helium, nuclear theory, the theory of molecular forces and cosmological problems of general relativity. Lifshitz did not squander his efforts on trifles. The list of his papers is relatively short and contains no insignificant papers. As associate editor of the *Journal of Experimental and Theoretical Physics* and as the individual who, in fact, set the tone and style of this premier Soviet physics journal, Lifshitz fought actively against the lowering of standards in scientific papers—a phenomenon unfortunately typical of modern science. His adherence to principles and refusal to compromise were known to hundreds of Soviet physicists and, as a matter of fact, to anyone who needed to communicate with him.

His services to science and to its organization and teaching as the author of the Course in Theoretical Physics were justly estimated by the scientific community. He was elected to the USSR Academy of Sciences (as corresponding member in 1966 and full member in 1979). In 1982 he was elected a foreign member of the Royal Society of London.

In the last few years of his life Lifshitz visited many countries, teaching and lecturing (mainly on cosmology). He was a brilliant speaker, always attracting many listeners. He corresponded extensively with colleagues in many countries and acquired many friends.

Landau and Lifshitz shared a deep friendship for more than 30 years. Lifshitz always considered himself Landau's student, and he regarded his meeting Landau as the most important and happiest event in his life. We all knew how much Landau valued and loved Evgenii Mikhailovich: Landau never hid his feelings for Lifshitz, emphasizing, in particular, that without his collaboration the course would never have been written.

It is impossible to describe a person's character in a short obituary. Lifshitz was never petty; he understood clearly what is important and what is secondary. Life in all its manifestations interested and excited him. His were a profound intellect and a good intuition that enabled him to judge correctly circumstances and human actions. Lifshitz was a man of high principles, who did not resign himself to circumstances and who was outspoken against falsehood in science and in life.

Everyone who knew Evgenii Mikhailovich feels the void created by his unexpected, and so premature, death. Books and articles outlive their authors, but this void will be felt for many years. Too important was the place occupied by Evgenii Mikhailovich in science, in our lives!

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Edwin Albrecht Uehling

Edwin Albrecht Uehling, Professor Emeritus of Physics at the University of Washington, died on 18 May 1985.

Uehling was born on 27 January 1901. After graduating from the University of Wisconsin in 1925 with a bachelor's degree in physics, he worked as a radio engineer at Bell Telephone Laboratories and other companies engaged in radiofrequency communications. During this period he was responsible for a number of patents. His background and experience in radio engineering gave him a lifelong interest in high-frequency phenomena that flavored his teaching and research.

Never satisfied with the superficial or with studying any phenomenon merely for its own sake, Uehling showed from his early years a deep interest in the basic principles of science. He studied under George Uhlenbeck at the University of Michigan, receiving his PhD in 1932. He continued as an instructor at Michigan until March 1933, when he left for ten months of study in Copenhagen at the Institute for Theoretical Physics, and in Leipzig with Werner Heisenberg.

Upon returning to the US Uehling took a position with RCA. In 1934, with the aid of a National Research Council Fellowship, he went to Berkeley and to Pasadena for two years of work with J. Robert Oppenheimer. In 1936 he was appointed assistant professor of physics at the University of Washington, where he rose through the academic ranks, making major contributions to the quality of the department. He retired formally in 1971, but remained active until 1984.

Uehling gained prominence early in his career. His doctoral dissertation was among the first attempts to develop a quantum theory of transport processes. This work was followed by a widely cited paper on the polarization of the vacuum, a phenomenon often called the Uehling effect. He then turned his attention to condensed-matter physics, especially nmr studies of ferroelectrics. He was a central contributor to the Senko–Uehling–Schmidt theory of ferroelectricity in KH_2PO_4-type materials.

During World War II Uehling served