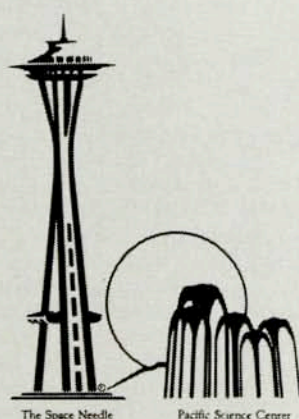


1986 COORDINATED CONFERENCES ON OPTICAL & LASER SCIENCE AND TECHNOLOGY

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- Seattle, Washington •
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ABSTRACT DEADLINE:
JUNE 5, 1986

at Columbia's Nevis Laboratory Hughes and his colleagues initiated the field of muon chemistry in gases and the search for the exotic conversion of muonium to anti-muonium. In 1952 Hughes became an assistant professor at the University of Pennsylvania; he came to Yale as an assistant professor in 1954. Working at the Los Alamos Meson-Physics Facility, Hughes and his collaborators from Yale and Heidelberg made highly precise measurements of the hyperfine structure and Zeeman splitting of muonium's ground state, which have provided one of the most sensitive tests of quantum electrodynamics and of the character of the muon as a heavy, structureless lepton—as well as precise values for the muon magnetic moment and the fine-structure constant. Hughes has served as associate chairman of the Yale physics department (1960–61) and as chairman (1961–67). He was named Donner Professor of Physics in 1969, and Sterling Professor of Physics in 1978; he is now also an adjunct professor of physics at Columbia. Recently Hughes and his coworkers have observed the Lamb-shift transition in muonium, as has a group at TRIUMF.

In the presentation to Ramsey, Burke noted that the technique of separated oscillatory fields in rf and optical spectroscopy, which Ramsey introduced (1950), allows one to "measure the properties of atoms with far greater precision than had heretofore been possible. This discovery is closely related to the work of Niels Bohr

because the uncertainty principle... forces the spectroscopist to carry out his measurements over a very long interval of time or, in the case of an atomic beam, over a very large space. This presents the problem of maintaining a uniform electromagnetic field over a large physical dimension. Norman Ramsey showed that the interference of resonances at the beginning and end of the flight path could circumvent the requirement of uniformity of the entire space. He also conceived and developed, with his associates, the atomic-hydrogen maser." Ramsey received an AB (1935) and PhD (1940) from Columbia, and an MA (1941) and DSc (1954) from Cambridge. During World War II he worked both at MIT on the first 3-cm-wavelength magnetrons and on the Manhattan Project. He returned to Columbia in 1945. From 1946 to 1947 he was the first chairman of the physics department at Brookhaven National Laboratory. In 1947 he came to Harvard as a professor of physics. The method of separated oscillatory fields serves as the basis for the most precise atomic clocks, as well as a high-resolution spectroscopic tool; in 1960 Ramsey and Daniel Kleppner invented the hydrogen maser, which allows still greater precision in spectroscopic studies and higher stability in atomic clocks (see *PHYSICS TODAY*, December, page 72). Ramsey was named Higgins Professor of Physics in 1966; he is currently studying time-reversal symmetry and parity, primarily with neutrons.

in brief

G. Samuel Hurst, formerly of Oak Ridge National Laboratory, has become a professor of physics at the University of Tennessee and director of the Institute of Resonance Ionization Spectroscopy, which was recently established under the university's Science Alliance Program.

Gerald Garvey, deputy associate director for nuclear- and particle-physics programs at Los Alamos, has been named director of the Los Alamos Meson Physics Facility.

Aviva Brecher, a recent Congressional fellow of The American Physical Society, has been named to head Boston University's new Office for Academic-Corporate Relations.

The Royal Institution of Great Britain has announced the following appointments: **John M. Thomas**, at present professor and head of the physical-chemistry department and fellow of King's College at Cambridge University, will

become director and resident professor at the institution and director of the institution's Davy Faraday Research Laboratory on 1 October 1986. He succeeds **Sir George Porter**, who was elected president of the Royal Society last November; Porter will remain as Fullerian Professor of Chemistry in the Royal Institution until 31 August 1988. **David Phillips**, Wolfson Professor of Natural Philosophy in the institution, will serve as its acting director from 1 January to 30 September 1986, when he will become deputy director. **Anthony K. Cheetham** will become professor in the institution on 1 October, holding a new chair in solid-state chemistry; he will also remain a lecturer in chemical crystallography at the University of Oxford.

Charles P. Bean, a physicist and biophysicist at the General Electric Research and Development Center in Schenectady, New York, has been named to a specially created chair at the Rensselaer Polytechnic Institute: Institute

Professor of Science. Bean joined GE in 1951, a year before he completed his PhD at the University of Buffalo. He is the director of the Bellevue Research Foundation and president of the board of the Dudley Observatory in Schenectady. In addition he has served as an associate editor of the *Biophysics Journal* and a member of the editorial board of the *Journal of Applied Physics*. In 1983 Bean was appointed Distinguished Research Professor of Science at RPI, a part-time post, but he has since decided to enlarge his teaching and research activities.

Obituaries

Paul P. Ewald

Paul P. Ewald, a key figure in the evolution of modern physics, died at his home in Ithaca, New York, on 22 August 1985, at the age of 97.

Ewald was born in Berlin, Germany, in 1888. His father, who died shortly before Ewald was born, was a historian at the University of Berlin. His mother was an internationally successful portrait painter. He learned to speak English and French before starting school, and his classical education at the *Gymnasium* gave him a lifelong love of literature and languages, especially classical Greek; he readily quoted Homer throughout his life. Soon attracted to the sciences, he tried chemistry at Cambridge, then mathematics at Göttingen and Munich, where he was finally drawn to physics. He thought of Arnold Sommerfeld, David Hilbert and Alfred Pringsheim as his most important teachers. From among the thesis topics proposed to him he chose what Sommerfeld considered the "least promising" one, namely "Dispersion

EWALD

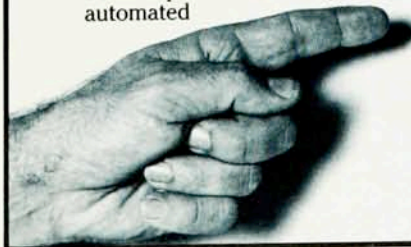


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