

ed to our understanding of these processes through his studies of such topics as visual pattern recognition, binocular depth perception, texture discrimination, and other topics. Using random-dot stereograms in visual depth-perception experiments, for example, Julesz was able to show that the brain retained images of random patterns that the viewer had previously seen. These and similar experiments, which analyze specific perceptual mechanisms in isolation from others, has led to an

increased understanding of the workings of the human brain. Recently Julesz has been working on new algorithms to model those used by the brain to decode visual scenes.

Julesz obtained his PhD from the Hungarian Academy of Science in 1956. He taught at the Telecommunications Research Institute in Budapest from 1951 until he came to the US in 1956 as the head of the Department of Sensory and Perceptual Processes at Bell Labs, a position he still holds.

obituaries

Elmer Hutchisson

Elmer Hutchisson, who served as the second director of the American Institute of Physics between 1957 and 1964, died on 10 April 1983. He was born in Cleveland in 1902, obtained a bachelor's degree at what was then the Case Institute of Technology, a master's degree at the Massachusetts Institute of Technology and a PhD in theoretical physics at the University of Minnesota.

Although Hutchisson accepted a junior faculty position at the University of Pittsburgh immediately after obtaining his PhD in 1926, he took a one-year leave of absence in 1929 to work with Erwin Schrödinger in Berlin. In the mid-1930s, recognizing that physics was becoming a principal source of technological advance in the US, he took another year of leave from Pittsburgh to help develop the *Journal of Applied Physics*, which he edited until 1954. During his association with it, it became one of the principal international journals in applied physics. On returning to the University of Pittsburgh in 1937, he became the head of the physics department. Among his innovations was a notable sequence of summer conferences that brought together academic and industrial physicists.

During World War II he took leave to serve in the National Defense Research Committee, devoted to undersea warfare. As the War was ending, he moved to Case, where he held a succession of administrative posts, as dean of the faculty, as dean of the graduate school and director of the research division, and as acting president. He did much to strengthen the scientific base of technical education at Case.

When Harry Barton decided to retire as Director of the American Institute of Physics in 1957, the Governing Board of the Institute turned to Hutchisson as its unanimous first choice for Director: his association with the Institute had been both deep and long. As his term



HUTCHISSON

as Director began, the Institute was just shifting to its present headquarters on 45th Street, and he took the opportunities offered by the new quarters to enhance the development of its programs with vigor. He was the moving force to establish the Institute's Education Division, the Center for History of Physics, and the Niels Bohr Library. He retired in 1964, but continued his work for the Institute as a consultant.

Hutchisson was also deeply interested in international scientific activities, serving, for example, with the International Union of Pure and Applied Physics and with the International Abstracting Board.

FREDERICK SEITZ
Rockefeller University

Horace Dwight Taft

Horace Taft died 12 February 1983, at the age of 57, while working on the analysis of data from the results of the CRIS particle identifier at Fermilab.

After three years in the field artillery in World War II, Taft enrolled at Yale and studied physics. Following

TENNELEC'S CHANGING THE SHAPE OF THINGS!

"In a side-by-side comparison with other amplifiers Tennelec's TC 243 amplifier with both triangular and gaussian shaping gave me the best resolution on my large-volume germanium detector."



- ✓ High throughput with excellent energy resolution
- ✓ Provides both triangular and gaussian shaping
- ✓ Excellent low and high-rate energy spectroscopy
- ✓ Gated BLR with automatic threshold
- ✓ Six peaking time selections for both gaussian and triangular shaping

TENNELEC
INC.

601 Turnpike, Oak Ridge, Tennessee 37830
USA
Telephone 615-483-8405/TWX 810-572-1018
Münchner Strasse 50, D 8025 Unterhaching
West Germany
Telephone 089/611-5060/TLX 52 4608

Call or write us today for more information. Better yet, tell us how your new TC 243 performs in your application.

5th Plasma/ Fusion Show

November 8-10, 1983

Los Angeles • Biltmore Hotel

at the Annual Fall Meeting of the Division of Plasma Physics of the APS

Equipment of particular interest to recent Plasma/Fusion Meeting attendees:

- Diagnostic/detection devices—RF thru x-ray
- High speed data acquisition systems
- R. F. sources
- Innovative vacuum measurement, pumping systems & related hardware

Contact: Show Manager,
American Institute of Physics,
335 East 45th Street,
New York, NY 10017 (212) 661-9404

his graduation and a year in Zurich, he entered graduate school at the University of Chicago, where he was one of Enrico Fermi's last students. He received his degree from Chicago and joined the Yale physics department in 1956.

On leave from Yale, working with the Alvarez hydrogen bubble-chamber group at Berkeley, Taft (with Frank Solmitz and Peter Berge) developed kinematic fitting techniques for bubble-chamber events that were adopted by most bubble-chamber groups throughout the world. The programs they developed involved one of the first massive uses of computers for data analysis in high-energy physics. Later, working with bubble chambers with collaborators at Yale, Taft helped in the discovery of the anti-sigma and anti-xi hyperons and contributed to the general knowledge of both strong and weak interactions through studies of the production and decays of particle states. About this time, he began a long-standing collaboration with an MIT group concerned with the instrumentation of automatic bubble-chamber measuring apparatus. In this development of the PEPR system, Taft led the construction of analysis programs, as he did in his more recent work with the Fermilab hydrogen bubble chamber and downstream particle identifier (CRISIS).

In all his career, his collaborators naturally turned to him for counsel and advice, not only on the best physics and how to pursue it, but also on how best to organize themselves to apply their abilities to a common problem. His leadership was quiet, firm, and universally respected.

The son of Senator Robert A. Taft and the grandson of President William Howard Taft, Horace Taft inherited a family tradition of public service and service to Yale University. From 1966

TAFT



until 1971 he was master of Yale's Davenport College and from 1971 to 1979 he served as dean of Yale College.

ROBERT K. ADAIR

JACK SANDWEISS

Yale University

IRWIN A. PLESS

Massachusetts Institute of Technology

Richard Schlegel

Richard Schlegel, professor of physics at Michigan State University, died unexpectedly on 30 May 1982 at the age of 68 while on leave at Cambridge University in England.

He was born in 1913 in Davonport, Iowa. He obtained his BA in 1935 from the University of Chicago, where he studied philosophy under Rudolph Carnap and the great Chicago president, Robert M. Hutchins. He moved to the University of Iowa for his MA, still majoring in philosophy, and was taught there by Herbert Feigl. The influence of both Carnap and Feigl persuaded him that a true philosopher also needs an education in science, so for his PhD, awarded at the University of Illinois in 1943, he chose to work in physics and physical chemistry. During the Second World War, like so many US physicists of his generation, he worked on the Manhattan Project on atomic fission. After spending three years at Princeton, he moved in 1948 to Michigan State University, East Lansing, where he taught a variety of graduate and undergraduate courses for nearly 34 years.

He never lost touch with the philosophical interests of his first university training. His books and papers were the work of a physicist, but one who was always alert for the conceptual and philosophical issues raised by modern physics. He published four books: *Time and the Physical World*, *Completeness in Science*, *Inquiry into Science*, and *Superposition and Interaction*. Throughout his career he was interested in the influence of relativity and quantum physics on our concepts of time, causality, observation and the physical interpretation of mathematical theories. In particular, starting with his early studies of time, he developed throughout his work what he called the "interaction hypothesis," which is a novel physical interpretation of the Lorentz transformation in special relativity. In his last book he considered how some of the paradoxes of quantum theory may be resolved by this interpretation, and how quantum theory and relativity can be brought into closer coherence by attending to the quantum conditions for the observation of relatively moving bodies.

In his later writings, religious questions were not far from the surface.

TENNELEC'S CHANGING THE SHAPE OF THINGS!

"My work with X-ray spectroscopy requires both good resolution and high counting rates. The Tennelec TC 243 with triangular and gaussian shaping allowed me to optimize my system and reach performance levels I could never obtain before."



✓ High throughput with excellent energy resolution

✓ Provides both triangular and gaussian shaping

✓ Excellent low and high-rate energy spectroscopy

✓ Gated BLR with automatic threshold

✓ Six peaking time selections for both gaussian and triangular shaping

TENNELEC
INC.

601 Turnpike, Oak Ridge, Tennessee 37830
USA

Telephone 615-483-8405/TWX 810-572-1018

Münchner Strasse 50, D 8025 Unterhaching
West Germany

Telephone 089/611-5060/TLX 52 4608

Call or write us today for more information. Better yet, tell us how your new TC 243 performs in your application.

Circle number 31 on Reader Service Card

PHYSICS TODAY / AUGUST 1983

79