

RITEC PULSED ULTRASONIC INSTRUMENTATION FOR RESEARCH

For the last three decades, the principals at RITEC have responded to the needs of researchers by producing specialized instrumentation.

RITEC's stellar performer, the RAM-10000 computer interfaced measurement system, is finding uses in many applications. It sets a new standard for ultrasonic research instrumentation.

An array of manually controlled instruments is also available.

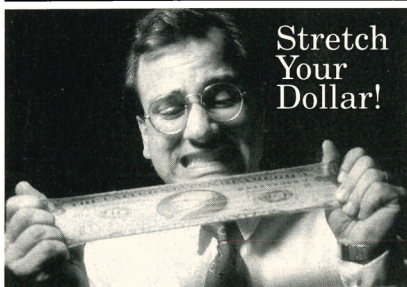
Call or write today!



RITEC, Inc.
60 Alhambra Road, Suite 5
Warwick, Rhode Island 02886
USA

Tel. 401/738-3660
FAX 401/738-3661

Circle number 70 on Reader Service Card



Stretch
Your
Dollar!

As your budget gets tight, every dollar needs to stretch further and further. Sometimes painfully far.

Call us.

We'll help you stretch your dollar in the right direction — the direction of value. At McAllister Technical Services we make equipment specifically designed for you — from our well-known Scanning Tunneling Microscopes, Tribological Systems, Chambers and Fittings, to our Electron Energy Loss Spectrometers, Catalytic Reactor Cells, Custom Hemispherical Analyzers, Crucibles and countless other custom-made Gizmos. Imagine, such exceptional quality for a price that will stretch your dollar further than you dreamt possible. Painlessly.

We'll make your dollar go the distance—guaranteed.
Call 1-800-445-3688 for more information.

McAllister Technical Services
Manufacturers of surface analytical instruments and devices

West 280 Prairie Ave.
Coeur d'Alene, Idaho 83814
FAX (208) 772-3384

APS Show—#216

Circle number 69 on Reader Service Card

ents announced earlier (PHYSICS TODAY, December 1993, page 63), the following also received grants: **James Graham**, assistant professor of astronomy at the University of California, Berkeley, who is exploring the physical processes that determine stellar masses; **Nancy Makri**, assistant professor of chemistry at the University of Illinois, Urbana-Champaign, who studies chemical reactions as quantum mechanical processes; and **Daniel H. Reich**, assistant professor of physics and astronomy at Johns Hopkins University, who explores experimentally the fundamental properties of materials at low temperatures and is using low-dimensional magnets to study quantum effects.

This past summer the European Physical Society awarded its 1993 High Energy and Particle Physics Prize to **Martinus Veltman**, a professor of physics at the University of Michigan, Ann Arbor. The citation acknowledges Veltman's "pioneering work on the role of massive Yang-Mills theories for weak interactions."

OBITUARIES

Zhang Wen-Yu

Zhang Wen-Yu passed away in Beijing on 5 November 1992 at the age of 82 after a long illness. Zhang had been an academician of the Chinese Academy of Sciences, director of the Institute of High-Energy Physics in Beijing and director of the Chinese Society for High-Energy Physics.

Zhang studied under Ernest Rutherford in the mid-1930s, receiving his degree from Cambridge University in 1938. He returned to China to teach at Nankai University, which, like other Chinese universities, had moved to an unoccupied area during the war. In 1942 his wife, Wang Cheng Shu, received a fellowship to work for her PhD at the University of Michigan. Zhang came to the US soon after, taking a research position at Princeton University. His first investigations were on alpha particle spectra in radioactive decay, a subject not far removed from his graduate studies. Later, when he joined Princeton's cosmic-ray group to study the interaction of high-energy particles, he found his life's work. His cloud chamber studies of stopped muons culminated in the observation of mu-mesic x rays, an important contribution to our understanding that muons are heavy electrons that can be captured into the Bohr orbits of nuclei.

Zhang joined the faculty of Purdue University in 1949. He brought with

him the large cloud chamber he had built at Princeton and, together with a few graduate students, myself included, he began the study of penetrating showers produced at sea level. Those who knew Zhang as an administrator will appreciate that he was a constant presence in the laboratory, especially during the construction of a second cloud chamber designed to study the interactions of the particles produced in the first chamber. We had no technicians, and Zhang did more than his share of cutting, drilling, wiring, assembling, disassembling and reassembling.

My clearest memories of those years are not so much of the construction, data taking and analysis, but of Zhang himself—quiet, smiling, somewhat shy, invariably courteous. A caring man, theoretically inclined, steeped in the history and philosophy of physics, he was a teacher of unfailing enthusiasm and optimism.

In 1956 Zhang, his wife—a noted physicist in her own right—and their young son returned to China, forced from America by the hysteria that was McCarthyism. Unknown to me, Zhang had endured an ordeal of harassment and uncertainty; his refuge was physics and his graduate students.

In China Zhang devoted his full concentration and energy to building a high-energy physics capability. At the Luoxueshan Cosmic-Ray Laboratory in Yunnan, in southern China, he and his colleagues constructed the largest cloud chamber of its time, and he began the training of a generation of high-energy scientists. He headed a group of Chinese physicists working on high-energy physics at Dubna from 1961 until the Soviet Union and China went their separate ways in 1965.

Zhang taught at the Chinese University of Science and Technology; he was the chairman of its department of modern physics from 1978 until his retirement ten years later.

In 1973, when the Institute of High-Energy Physics was founded in Beijing, Zhang became its first director. He immediately reached out to friends throughout the world, opening doors of communication. He led the first group of Chinese high-energy physicists to visit laboratories in the US, and he invited Western scientists to China. Negotiations culminated in agreements of cooperation.

Now Zhang is gone, but his legacies remain: for China, the accomplishment—shared with many, to be sure—of his goal of developing high-energy physics with domestic facilities and international collaborations; for individuals who knew him, an abiding influence. We all learned

WE HEAR THAT

from his example the highest standards of conduct in the search for the truths of physics, a search to be carried out with dedication, joy and boundless optimism.

LEE GRODZINS

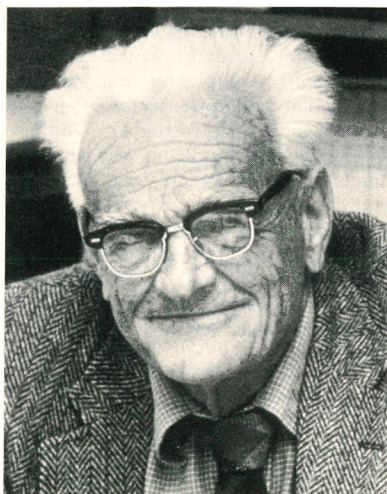
Massachusetts Institute of Technology
Cambridge, Massachusetts

Clarence Zener

Clarence Zener's death in Pittsburgh in early July at the age of 87 brought to a close a distinguished career in theoretical solid-state physics. Zener is also widely known for technological applications in related fields of engineering.

A native of Indianapolis, Zener received his undergraduate degree in physics from Stanford in 1926 and his PhD, also in physics, from Harvard in 1929. Postdoctoral appointments followed at Princeton, Leipzig and Bristol. He published on many topics in physics; one early paper on dielectric breakdown in insulators resulted later in the naming of a particular voltage-regulating device the Zener diode.

He then took academic positions at Washington University in St. Louis, City College of New York and Washington State University. Believing that he would never be able to support his family by working in pure physics, he partially switched to more practical topics. During World War II, Clarence was principal physicist at the Watertown Arsenal. Through work on the penetration of armor plate by high-speed projectiles he learned about the metallurgy of steels, and he later proposed a kinetic theory of the formation of mixed carbides and ferrite as a result of quenching and tempering of carbon



Clarence Zener

High Voltage 20¢/Volt

The PS300 programmable power supply series provides up to 5 kV at 25 Watts for laboratory and ATE applications. These supplies offer a wide range of features including programmable current and voltage limits, selectable overload response, and short circuit protection.

Dual LED displays monitor both output current and voltage, while a third display allows error-free front panel entry. A full GPIB interface is available for ATE systems.

The combination of features, price, and performance make the PS300 series the perfect choice for laboratory or systems use.

\$1150.00

PS350	0 to 5 kV
PS325	0 to 2.5 kV
PS310	0 to 1.25 kV

25 Watts output power
0.001% regulation
0.1% accuracy
Low output ripple
Dual polarity
Voltage and current readouts

GPIB Interface \$495



Stanford Research Systems

1290 D Reamwood Avenue, Sunnyvale, CA 94089
TEL (408) 744-9040 FAX 4087449049 TLX 706891 SRS UD

APS Show—#412, 414

Circle number 49 on Reader Service Card