

we hear that

of the Institute, Keith B. Mather, was appointed the vice-chancellor for Research and Advanced Study at the University of Alaska.

Sidney Ross was named staff technical adviser at RCA's Government Systems Division. Ross, who is responsible for independent research and development within the Division, was formerly the technical director of Frankford Arsenal.

The communications Group of Oak Industries Inc. appointed **H. K. Sauer** to become president of its CATV Division. Sauer comes from Harris Satellite Communications Company where he was vice-president.

Homer A. Neal, previously on the physics faculty at Indiana University, was appointed dean of resources and graduate development at the same institution.

Richard Ahrenkiel, formerly with the Eastman Kodak Research Laboratory in Rochester, N.Y., has joined the staff of the Los Alamos Scientific Laboratory. Ahrenkiel will be working in the Laser Research and Technology Division.

T. Eugene Smith has joined Pertec Com-

puter Corporation as the vice-president and general manager of its Microsystems Division. Smith was formerly the president of Loftis Engineering Corporation.

Carl J. Campagnuolo received the Department of the Army Meritorious Service Award, the second-highest civilian honor given by the Army. The Award cites his outstanding technical achievements during a 16-year tenure as a research physicist at the Harry Diamond Laboratory in Adelphi, Maryland. Also receiving an award was **Norman J. Berg**, a research physicist at the Laboratory. Berg received the Hinman Award, presented for innovative research in the area of signal processing.

Paul H. Frampton, formerly an associate research physicist at the University of California, Los Angeles, is now working with the high-energy theory group at Ohio State University. He assumes the title of adjunct associate professor and senior research associate.

John R. Pierce, professor of engineering at the California Institute of Technology, received the Founder's Medal of the National Academy of Engineering. Pierce, a Fellow of the Acoustical Society of America, was cited for his contributions to the art of electronic communication.

obituaries

Alfred E. Schild

Alfred E. Schild, one of the world's leading research workers in the theory of gravitation and Ashbel Smith Professor of Physics at the University of Texas at Austin, died on 24 May. He was 56 years old.

Schild clarified and enlarged general relativity through his studies of single-particle motion, quantization, special solutions and the conformal structure of space-time. His beautiful papers exhibiting the null structure of the world combined geometrical vision with analytical power. Much of his work on action principles and particles will be found inspiring by many physicists when read and understood. His style was direct and elegant. As far as I know, Schild never published a wrong formula. His expositions of tensor analysis and relativity are still among the best and clearest treatments of these subjects.

Schild, an Austrian Jew, was born in Turkey. In 1939 he fled Nazi Austria, was interned in England and sent to Canada. He studied at the University of Toronto with John L. Synge and Leopold Infeld. In 1957 he came to the University of Texas at Austin. He created a center for relativity there and was instrumental



SCHILD

in establishing centers for statistical mechanics and particle physics. His charm, warmth, vision and honesty recruited people from far away for the University of Texas, whose physics department now enjoys international distinction.

He liked people; he was a humanist and fought for the rights of the individual with zest and compassion. Titles such as "chairman of the board of regents" or "President of the United States" did not impress him. His proposals for university reform were original; for example:

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obituaries

"Every newborn child should receive, with his birth certificate, a second document granting him a PhD..." He was a writer and lover of the arts with a tremendous *joie de vivre* and was completely unstuffy. When a *Daily Texan* interviewer asked him how he conducted his research, he answered, "I sit at my desk and think of girls, and sometimes I get a good idea."

Physicists all over the world have lost more than a distinguished colleague. One of the kindest, most amiable persons is dead. He was the most decent man I ever knew.

E. L. SCHUCKING
New York University

Arthur Cobb Hardy

Arthur Cobb Hardy, ScD, emeritus professor in the department of physics at MIT, died in his sleep at his home in Wellesley, Massachusetts on 31 October at the age of 81.

Hardy was born in Massachusetts and educated at the University of California. Upon completion of his master's degree in 1917 he enlisted in the Photographic Branch of the US Army Signal Corps, transferred to the Air Service and served in France as the commanding officer of the 23rd Photographic Section. Thereafter, he was an instructor at MIT until 1920, when he was employed as a physicist at the Research Laboratories of the Eastman Kodak Company. At Kodak he specialized in optics and became the 172nd member of the newly formed Optical Society of America. In 1922 Hardy returned to MIT as an assistant professor and became, in 1933, professor of optics and photography.

Throughout his long teaching career, Professor Hardy profoundly influenced the careers of many students who are today well-known applied scientists and engineers. They remember with gratitude his ability to connect fundamental knowledge with the technical needs of industry. His famous text, *The Principles of Optics* (McGraw-Hill 1932), is still unique and useful. A later work, the *Handbook of Colorimetry* (Technology Press 1936), together with his invention of the first automatic recording spectrophotometer led to industrial color measurement as now practiced world-wide. His research on color reproduction in the printing industry pioneered advancements in that field.

In World War II Hardy was the chief of a section of the National Defense Research Committee in President Roosevelt's wartime Office for Emergency Management. That section was concerned with what military personnel can see under every kind of operational circumstance and with means for restricting enemy visual capability. Technical