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we hear that

Rice University; **Cyril M. Harris**, Columbia University; **Wallace D. Hayes**, Princeton University; **John A. Hornbeck**, Bell Laboratories; **Edward A. Mason**, Nuclear Regulatory Commission; **Erwin W. Mueller**, Pennsylvania State University; **Rocco A. Petrone**, National Center for Resource Recovery; **Albert Rose**, RCA Laboratories; **John H. Sinfelt**, Exxon Re-

search and Engineering Co; **Ping King Tien**, Bell Laboratories; **John W. Townsend Jr.**, US Department of Commerce; **Alvin M. Weinberg**, Oak Ridge Associated Universities and **F. Karl Willenbrock**, National Bureau of Standards.

James W. Butler has been appointed head of the ion-beams application branch of the radiation technology division at the Naval Research Laboratory in Washington, D.C.

obituaries

André Lagarrigue

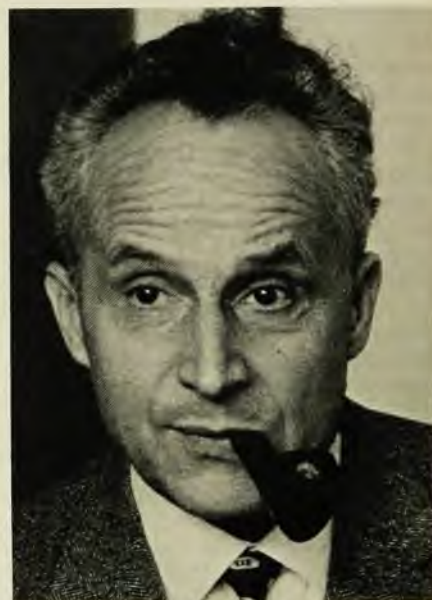
André Lagarrigue died suddenly on 14 January a few hours after interrupting his regular morning lecture at Orsay. He was 51.

One of the most gifted, well-balanced and clear-minded experimental particle physicists in contemporary France, at the time of his death he was director of the Laboratoire de l'Accélérateur Linéaire at Orsay and president-elect of the Société Française de Physique.

Born and reared in Toulouse, Lagarrigue began his scientific career in the laboratory of Professor Louis Leprince-Ringuet at the Ecole Polytechnique in Paris. His experimental research developed in the direction of cosmic-ray physics, culminating in a doctoral thesis in 1952 on the muon decay spectrum. He spent several years thereafter in exploring strange-particle events produced in the large cloud chambers operated by the high-altitude laboratory at the Pic du Midi, leading to an identification of the $K\mu$ decay mode.

In 1956 he established a group for performing experiments with the proton synchrotrons at Saclay and CERN in Geneva. The expertise gained in constructing and using two modest prototypes of heavy-liquid bubble chambers led to the successful construction and operation of a second-generation, 300-liter model (BP3). After a number of runs at Saclay this bubble chamber was brought in 1960 to CERN where, under Lagarrigue's supervision, it became extremely productive in a wide range of experiments carried out by groups from many laboratories throughout Europe and the United States.

A major accomplishment in which Lagarrigue elegantly displayed his scientific knowledge and remarkable talent for organization came in 1970 at CERN when the third-generation giant bubble chamber "Gargamelle" became operational and highly successful under his leadership. Neutrino physics received a vital boost through this powerful tool. It was with Gargamelle that



LAGARRIGUE

pictures were obtained in 1973 demonstrating the existence of neutral currents.

A professor at the Faculty of Sciences in Orsay since 1965, Lagarrigue in 1969 became director of the Linear Accelerator Laboratory, where he expressed enthusiasm for exciting experiments and encouraged the development of storage rings and other new experimental devices.

He managed to combine his passion for direct experimental work with the heavy burden of administrative responsibilities, which he carried out with kindness and good humor. He had a strong interest in the well-being of his co-workers and never abandoned his concern for the problems facing modern society. In this spirit he accepted leadership of a national committee reorganizing the physics curriculum in French secondary schools.

He commanded the respect and affection of all who knew him by his honesty, his tactful directness and his love of beauty. For the French physics community in particular he remains irreplaceable. To his family and many

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obituaries

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WILLIAM B. FRETTER
University of California
Berkeley

William Birch

William B. Birch, electrical engineer and physicist at the Naval underwater sound laboratory in Newport, Rhode Island, died on 4 May. He was 46.

Birch received a bachelor's degree in electrical engineering from the University of Rhode Island in 1950 and earned his master's in physics there in 1960. He was employed at the Naval laboratory for 14 years and he spent the preceding ten years at URI's marine laboratory.

Louis Strait

Louis A. Strait, professor emeritus of biophysics at the University of California at San Francisco, died on 23 March at the age of 67.

Strait's research interests included spectroscopy and molecular structure and their chemical and biological applications. In 1937 he joined the faculty at San Francisco, where he founded a spectroscopy laboratory and participated actively in the academic senate until his retirement in 1972. Earlier this year he was the first recipient of an award established in his name by the Northern California Spectroscopy Society, which he helped to create.

Anatolii Blagonravov

Anatolii Arkad'evich Blagonravov, a leading figure in the Soviet space program, died on 4 February at the age of 90.

Blagonravov was a Lieutenant-General of Artillery and since 1953 a full member of the USSR Academy of Sciences. He joined the Soviet space program during the 1950's as a rocket designer and after 1960 published numerous works on space research. He was an early member of the Pugwash movement, deputy representative of the USSR at the UN committee for the peaceful use of space and chairman of the commission of the USSR Academy of Sciences on space research and utilization. Blagonravov was a member of the International Academy of Astronautics and held many Soviet medals and awards. □

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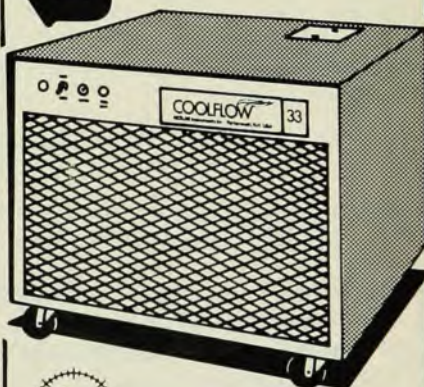
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