adiabatic compression and solidification of He^3. In 1969 his group reported the lowest temperature achieved at that time by purely mechanical means, 2.5 mK. The method was independently used at Cornell to discover the superfluid transitions of liquid He^3. In the years that followed, Wheatley and his collaborators made many important measurements in the new superfluid and helped map its phase diagram as a function of pressure.

Wheatley's interest in and understanding of classical thermodynamics and mechanics, plus his desire to solve "practical problems," moved him to start a program (see PHYSICS TODAY, August 1985, page 50) to study liquid heat engines in parallel with the superfluid helium work. At the time of his death he was actively involved in work in spin-polarized hydrogen, turbulence, heat engines and superfluid He^3.

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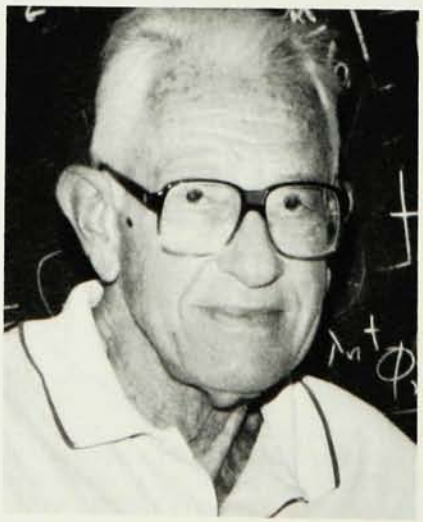
Theodore David Holstein

Theodore D. Holstein, professor of physics at the University of California, Los Angeles, died shortly before his 70th birthday. His research of over 45 years was characterized by seminal contributions in a variety of fields. Holstein's earliest work (1939), with Henry Primakoff, gave us the first theory of the strong three-body interaction in nuclear physics. His solid-state efforts began in 1940 with the famous Holstein–Primakoff paper on the microscopic theory of magnetization, which initiated spin-wave theory. In atomic physics he wrote classic papers on the imprisonment of radiation in gases and on pressure broadening of spectral lines. He subsequently made many fundamental studies of electronic transport phenomena in solids.

HOLSTEIN



These include his incisive works on self-trapping, polaron motion, hopping transport and transport in metals.

Holstein was born in New York on 18 September 1915. He earned his BS at New York University in 1935, his MS at Columbia University in 1936 and his PhD at New York University in 1940. Following a short stay at the City College of New York, Holstein went to Westinghouse Research Laboratories, where he worked from 1941 until 1959. During this period he was primarily concerned with atomic physics. Beginning in the mid-1950s Holstein increasingly devoted himself to solid-state physics, publishing papers on the optical and galvanomagnetic properties of metals and his well-known initial pair of polaron papers. In 1959 Holstein joined the physics department of the University of Pittsbugh. He moved to Los Angeles in 1965. Although he continued his research in atomic physics, Holstein's efforts from about 1960 until his death were primarily directed toward electron and energy transport in solids.

Holstein has been aptly characterized as "the quintessential physicist" and "the theorist's theorist." He was uncompromising in his dedication to the search for scientific knowledge and understanding. He always strove to maintain the highest standards of scholarship and intellectual integrity. His penetrating physical insights are manifested by the directness and clarity of his papers. His incisive questioning was well known. By today's standards Holstein published modestly, but the papers he wrote mattered. Even his unpublished reports are basic references.

Those of us who were fortunate enough to know him well understood his dedication to thoroughness: He had exceptionally high standards and little tolerance for half-hearted efforts, pro forma activities and pomposity. Beyond physics, the study of history, literature and the enjoyment of music were important elements of his life. His friends many times found him to be extremely compassionate and caring. He often took on the problems of others as his own.

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