

KRUER RECEIVES 1990 MAXWELL PRIZE FROM APS

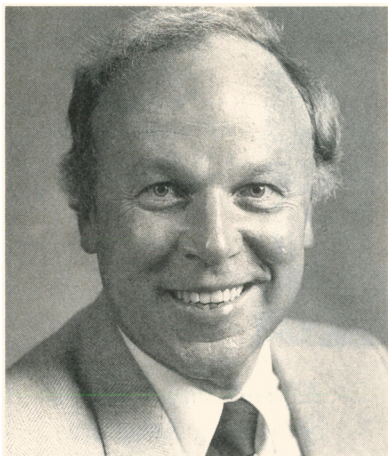
The American Physical Society recently honored several individuals for outstanding research achievements in plasma physics.

At its meeting in Cincinnati, Ohio, last November, the APS division of plasma physics presented the 1990 James Clerk Maxwell Prize to William L. Krueer of Lawrence Livermore National Laboratory. The division cited Krueer "for outstanding and seminal contributions to the theoretical and experimental understanding of the interaction of intense electromagnetic waves with plasmas and for numerous contributions to the understanding of basic plasma phenomena via numerical simulation." Krueer has studied many processes related to intense laser-plasma interactions, including resonance absorption, parametric decay, stimulated Brillouin and Raman scattering and the two-plasmon decay instability. His work has been applied to laser-driven inertial fusion, free-electron lasers, space plasmas and wave heating of tokamaks.

Krueer earned a PhD in astrophysics from Princeton University in 1969. From 1969 to 1972 he worked at the Princeton Plasma Physics Laboratory. In 1972 he moved to Livermore, where he is currently associate division leader for plasma physics in the inertial-confinement fusion program.

Also at the November meeting, E. Michael Campbell, Peter L. Hagelstein, Dennis I. Matthews, Mordecai D. Rosen and Szymon Suckewer received the 1990 APS Award for Excellence in Plasma Physics Research. The purpose of this award is to recognize a recent achievement in the field. The 1990 winners were cited for

William L. Krueer



"the first laboratory demonstration of a soft x-ray laser, achieved through pioneering laser target design, theoretical modeling of the states of highly ionized atoms in laser produced plasmas and novel spectroscopic diagnostics of such plasmas."

Campbell, Hagelstein and Rosen were part of a Livermore group led by Matthews, which first demonstrated a 206 Å selenium x-ray laser in the spring of 1984. Suckewer led a separate group at the Princeton Plasma Physics Laboratory, which developed a 182 Å carbon soft x-ray laser.

Campbell received a PhD in applied physics, aerospace and mechanical sciences from Princeton in 1977. He then joined Livermore, where he is currently a program leader in the laser program.

Hagelstein earned a PhD in electrical engineering and computer science from MIT in 1981. From 1975 to 1985 he was a staff physicist at Livermore. In 1986 he became an associate professor of electrical engineering and computer science at MIT.

Matthews received a PhD in atomic physics from the University of Texas, Austin, in 1974. He is currently group leader in the inertial confinement fusion program for the development of laboratory x-ray lasers and their applications at Livermore.

Rosen earned a PhD in plasma physics from Princeton in 1976. He is currently division leader in the plasma physics and laser fusion target design program at Livermore.

Suckewer received a PhD in plasma physics in 1966 and a doctorate in 1971 from Warsaw University in Poland. In 1975 he emigrated to the US and joined the Princeton Plasma Physics Laboratory, where he is currently the head of the x-ray laser project. In 1988 he became a professor in the mechanical and aerospace engineering department at Princeton.

Also presented at the November meeting was the Simon Ramo Award for an outstanding doctoral thesis in plasma physics, which went to Margaret Murnane of Washington State University. Murnane's thesis, entitled "Subpicosecond Laser-Produced Plasmas," was cited by the division for "all aspects of a benchmark experiment opening up the new field of high-density, high-temperature plasmas created by ultrashort laser pulses." Murnane did her graduate work at the University of California, Berkeley, where she developed the laser system and diagnostics to demonstrate the production of picosecond x-ray pulses from short-lived laser-produced plasmas.

After receiving a PhD in physics in

1989, Murnane remained at Berkeley for one year as a postdoctoral fellow. In 1990 she became an assistant professor of physics at Washington State.

IN BRIEF

The Continuous Electron Beam Accelerator Facility in Newport News, Virginia, has made some high-level additions to its staff in the past year.

Fred Dylla, most recently head of the operations branch at the Princeton Plasma Physics Laboratory, is now an associate division manager at CEBAF. Dylla's appointment became effective in October. **Nathan Isgur**, formerly a physics professor at the University of Toronto, became head of theory at CEBAF last July. And **George Neil** has left his position as a senior scientist in TRW's defense and space systems group to become head of the linac department at CEBAF, where he started working last April.

OBITUARIES

Robert A. Ellis Jr

A pioneer in modern experimental plasma physics, Robert A. Ellis Jr, died on 15 December 1989 at the age of 62. He was head of experimental projects at the Princeton Plasma Physics Laboratory, where he had worked since 1956.

Bob received a BA from Fisk University in 1948 and an MS from Yale in 1949. Immediately thereafter, he became an instructor at the Tennessee Agricultural and Industrial State College in Nashville, an all-black and mostly undergraduate school that later evolved into Tennessee State University. While on leave from Tennessee A&I Bob completed his PhD work at the University of Iowa. There Bob was the first doctoral student of James Van Allen, who urged him to seek a position at a research university. But Bob's commitment to black education and his loyalty to Tennessee A&I led him back to that institution, where he was soon promoted to a full professorship.

In 1956 seeing a unique opportunity to participate in a new field, Bob went to Princeton to join Project Matterhorn, the small group, then headed by Lyman Spitzer Jr., working on controlled fusion. At Project Matterhorn (now the Princeton Plasma Physics Laboratory) Bob became a key member of the team studying the magnetic confinement and heating of plasmas in stellarators. Their published papers on the B-1 and B-3 devices were