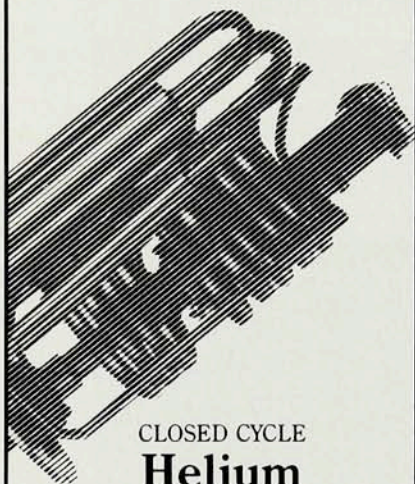


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Southern Colorado), for her studies in the history of physics and for her activism toward removing barriers that have kept women and minority group members from choosing careers in science and engineering.

LUNINE RECEIVES UREY PRIZE FOR PLANETARY SCIENCE

In November the division for planetary sciences of the American Astronomical Society presented its 1988 Harold C. Urey Prize to Jonathan I. Lunine (University of Arizona). The prize, which is given each year to recognize and encourage outstanding achievement in planetary research by a young scientist, honors Lunine's "insightful and creative work on the nature and role of ices and volatiles in the solar system" and his "innovative chemical and thermal model for the atmospheres of 'brown dwarfs.'"

Lunine's research has focused on developing thermodynamic and chemical models of the origin, evolution and present states of comets and of the icy satellites that orbit the outer planets. Using data from the European Giotto and Soviet Vega spacecraft on the volatile composition of Comet Halley, Lunine is trying to determine the conditions under which it formed.

Volatiles, abundant compounds that undergo phase changes over the temperature ranges typical of their surroundings, mediate mass and energy exchange among the atmosphere, the surface and the interior. Water and carbon dioxide are the dominant volatiles on Earth; ammonia, methane, carbon monoxide and nitrogen play similar roles on comets and cold satellites.

Volatile molecules provide information on the histories of icy satellites, because volatiles are released from the satellites' deep interiors through volcanic outgassing. On Earth, early epochs of volcanism may have driven water, carbon dioxide and other volatiles to the surface and atmosphere. "On large icy satellites," Lunine explains, "early volcanic activity involving water-ammonia fluids probably brought large quantities of methane, carbon monoxide and other volatiles to those surfaces."

Lunine also models "brown dwarfs," which are hydrogen-helium objects not massive enough to ignite hydrogen fusion. Brown dwarfs are expected to be extremely faint, and so far none have been definitively observed.

Lunine received a BS in physics and

astronomy from the University of Rochester in 1980, and a PhD in planetary sciences from Caltech in 1985. He joined the Lunar and Planetary Laboratory of the University of Arizona as a research associate in 1984. He is now an assistant professor in the department of planetary sciences.

IN BRIEF

Roberto Peccei, formerly head of the theory group at DESY in Hamburg, FRG, has become a professor of physics at UCLA.

Eric D'Hoker, formerly an associate professor of physics at Princeton University, has become a tenured associate professor of physics at UCLA.

Katsushi Arisaka, formerly a research investigator at the University of Pennsylvania, has become an assistant professor of physics at UCLA.

Alan Lightman, formerly a staff member at the Harvard-Smithsonian Center for Astrophysics, has been appointed professor of science and writing at MIT, teaching in the departments of physics and humanities.

OBITUARIES

George McVittie

George Cunliffe McVittie, long-term head and founder of the modern department of astronomy of the University of Illinois at Urbana-Champaign, died in England on 8 March 1988. He was 83.

McVittie came to Illinois in 1952 to rejuvenate the astronomy program, whose only professor, Robert H. Baker, had recently retired. He found a "department" with no staff other than himself, with a few antique instruments and with no students. He left it in 1972 with a staff of nine senior faculty members, world-class radio and optical telescopes, two dozen PhD students in progress, and a growing reputation in research. The department has since built on this momentum to become one of the country's leading academic astronomy departments.

McVittie was born in Turkey in 1904 of a British family of merchants and diplomats, and was raised in Smyrna (now Izmir) until the age of 18. He never attended school, but was