Mathematics People

Gray Receives AAAS Mentor Award

MARY GRAY of American University was awarded the 1994 Mentor Award for Lifetime Achievement from the American Association for the Advancement of Science (AAAS) at its annual meeting in February 1995.

Professor Gray was recognized for the extraordinary number of women and underrepresented minorities she has affected in her career both directly and indirectly through the influence of her former students and the programs she has initiated and developed. Her twenty doctoral students include eleven women and five African Americans. It is particularly impressive that the four African American women who received Ph.D.'s in mathematics education under her direction constitute a full one-third of the twelve African American women who received Ph.D.'s in the mathematical sciences in the period 1985–1991.

Professor Gray's success is due to the energy she dedicates to first uncovering promising women minorities, guiding them to a fruitful graduate program, and then seeing to it that they have the means to succeed. She sought financial aid for her students and assisted them with locating housing and securing child care and other necessities that made a critical difference.

Her impact as the founding president of the Association for Women in Mathematics (AWM) cannot be underestimated. She has also been instrumental in the development of mentoring programs in several mathematics and statistics societies, including the AMS, which she served as vice-president from 1976 to 1977. She currently chairs the Joint Lectureship Program of five statistical societies.

In addition, Professor Gray was cited for her outstanding work on behalf of human rights for all in the international arena. Her work for the advancement of women and ethnic minorities knows no limits. Her commitment and impact on human rights was recognized in 1993 when she became chair of the Board of Directors of Amnesty International USA.

Mary Gray received her bachelor's degree in mathematics and physics from Hastings College in 1959. She spent 1959 and 1960 at the J. W. Goethe Universität in Frankfurt and then received her master's degree in mathematics from the University of Kansas in 1962. Two years later, specializing in ring theory, she earned her doctorate in mathematics from that institution. But as academic equity became her passion, she turned toward applied statistics and the study of law. She received her J.D. degree summa cum laude from Washington College of Law in 1979, joined the Maryland bar, and received a Doctor of Laws *honoris causa* from the University of Nebraska in Lincoln in 1993.

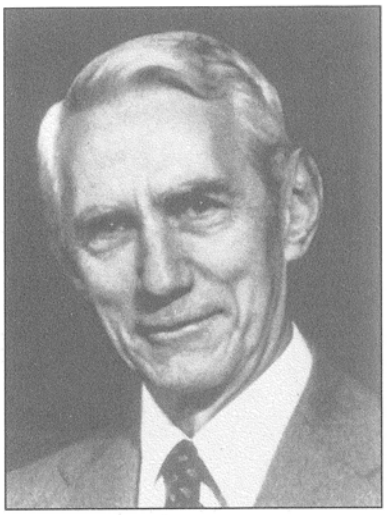
Before coming to American University in 1968, she held appointments at the University of California, Berkeley, and at California State University, Hayward. She served several terms as chair of the Department of Mathematics, Statistics, and Computer Science at American University, was director of their Women's Studies Program from 1988–1989, and president of their faculty senate in 1979–1980 and 1991–1993.

Her research areas include forensic statistics, language and mathematics, gender and mathematics ability and performance, and legal issues in computing.

—Mary Beth Ruskai

Claude Shannon Receives Wiener Medal

CLAUDE E. SHANNON, a renowned researcher in information theory, was awarded the Norbert Wiener Centenary Medal by the International Association of Cybernetics (IAC). The medal was presented during the Norbert Wiener Centenary Congress, held at Michigan State University from November 27 to December 3, 1994. The AMS was a cosponsor of



Claude E. Shannon

the Congress, along with the IAC and the World Organization of Systems and Cybernetics. Because Professor Shannon is in ill health, his wife accepted the award on his behalf.

Citation

The citation for the award said: "On behalf of the International Association of Cybernetics, I, Jean Remaekers, the president, award to you, Claude Elwood Shannon, the Norbert Wiener Centenary Medal in recognition of your master's thesis, which helped change digital circuit design from an art to a science;

"your profound probabilistic concept of information, rooted in the thermodynamics of entropy and disorder, that has profoundly affected all aspects of communications engineering, and moreover has been highly relevant in the theory of statistical inference of Sir Ronald Fisher and others;

"the inspiration your contributions have given the school of Kolmogorov in sensing the non-probabilistic combinatorial aspects of information and its importance for the study of complexity;

"your work on chess-playing and other automata, which, together with all your other works, makes you, with Norbert Wiener, a true Father of the Second Industrial Revolution."

Biographical Sketch

Claude Elwood Shannon was born on April 30, 1916, in Gaylord, Michigan. He received his B.S. in 1936 from the University of Michigan and his M.S. and Ph.D. in mathematics in 1940 from the Massachusetts Institute of Technology. He was on the staff of the Carnegie Institution in 1939 and then held a research fellowship at Princeton University in 1940. He was a research mathematician at Bell Telephone Labs from 1941 until 1972. In 1957 he also became a professor of communication sciences and mathematics at MIT; he has been an emeritus professor since 1978.

Professor Shannon has received numerous honors and distinctions during his lifetime, including several honorary degrees. He received the Stuart Ballantine Medal of the Franklin Institute (1955) and was the AMS Gibbs Lecturer (1965). In 1966 he was awarded the Medal of Honor of the Institute for Electrical and Electronics Engineers (IEEE). That same year, President Lyndon Johnson presented Professor Shannon with the nation's highest honor in science, the National Medal of Science. Professor Shannon received the Kyoto Prize in Basic Science as well as the Audio Engineering Society Gold Medal in 1985. He was one of five Americans who received the Marquis Who's Who, Inc. Achievement Award. He is a fellow of IEEE and a member of the American Academy of Arts and Sciences, the National Academy of Sciences, the National Academy of Engineering, the Leopoldina Academy, the Royal Netherlands Academy of Arts and Sciences, the Royal Irish Academy, and the Royal Society of London.

Professor Shannon is noted for his contributions to information theory (as developed in his paper, *A mathematical theory of communications*, Bell System Technical Journal **27** (1948)) and for his application of boolean algebra to the theory of switching circuits (which he developed in his master's thesis at MIT).

AAAS Fellows Elected

In September 1994, the American Association for the Advancement of Science (AAAS) elected nearly 300 scientists, mathematicians, engineers, and educators as AAAS Fellows. Among these were a number of mathematical scientists. What follows are their names, affiliations, and the AAAS section to which they were elected. JACK DONGARRA, University of Tennessee (information, computing, and communication); JONAS H. ELLENBERG, National Institute of Neurological Disorders and Stroke (statistics); MITCHELL H. GAIL, National Cancer Institute (statistics); HERBERT A. HAUPTMAN, Medical Foundation of Buffalo (medical sciences); ALBERT J. HOPKINS, Danbury, New Hampshire (information, computing, and communication); SUSANNE M. HUMPHREY, National Library of Medicine (statistics); ELLIOTT H. LIEB, Princeton University (mathematics); JOYCE CURRIE LITTLE, Towson State University (information, computing, and communication); KURT LOENING, Topterm-North American Division (information, computing, and communication); WILLIAM MICHAEL O FALLON, Mayo Clinic (statistics); C. RAMAKRISHNA RAO, Pennsylvania State University (statistics); RICHARD M. SCHOEN, Stanford University (mathematics); TERENCE PAUL SPEED, University of California, Berkeley (statistics); FREDERIC Y. M. WAN, University of California, Irvine (mathematics); FRANK W. WARNER, III, University of Pennsylvania (mathematics); and JON A. WELLNER, University of Washington (statistics).

Erratum

The January 1995 issue of the *Notices* (page 59) reported the deaths of Emile Bertin and Neville C. Hunsaker. Their names were inadvertently switched. Following is the correct information.

Emile Bertin, of Utrecht University, the Netherlands, died on March 23, 1994. Born on August 13, 1931, he was a member of the Society for 15 years.

Neville C. Hunsaker, Professor Emeritus of Utah State University, died on December 9, 1993. Born on December 11, 1907, he was a member of the Society for 45 years.