

AAPT RECOGNIZES HERBERT, CREATOR OF 'MR. WIZARD' TV SERIES

At the July meeting of the American Association of Physics Teachers held in Vancouver, British Columbia, Don Herbert, the creator and host of the "Mr. Wizard" television series, was presented with the Robert A. Millikan Award, which recognizes "notable and creative contributions to the teaching of physics."

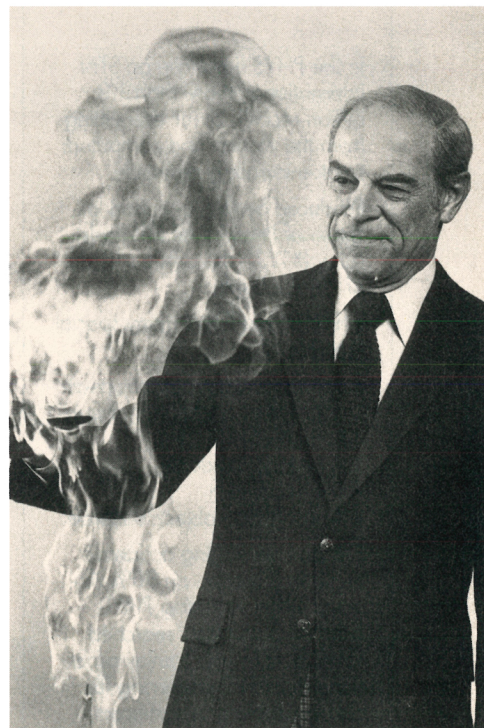
Herbert received a BS degree from the University of Wisconsin, La Crosse, in 1940. Although he had initially planned to teach science, with the advent of World War II Herbert joined the military instead. After the war he began working in radio, and in 1951 he created the television program "Watch Mr. Wizard." "Many AAPT members remember [the show] as one of their early introductions to science," the award citation said. More recently Herbert and his wife, Norma, have produced a syndicated science news report called "How About..." and

Mr. Wizard, the character popularized by Don Herbert, performs a fiery demonstration. Herbert received the 1991 AAPT Millikan Award.

Herbert has revived his Mr. Wizard role in a program that airs on the cable channel Nickelodeon. In 1979 the Herberts helped organize a group of performers who present science demonstrations at elementary schools; the tour now reaches about 3000 schools and 1.2 million students each year.

After accepting the award Herbert spoke to the assembled AAPT members about his myriad experiences on the "Mr. Wizard" set.

Also at the July meeting Paul Hansma received the first Paul E. Klopsteg Award (see *PHYSICS TODAY*, October, page 104).



LORENZ WINS KYOTO PRIZE FOR WORK ON WEATHER AND CHAOS

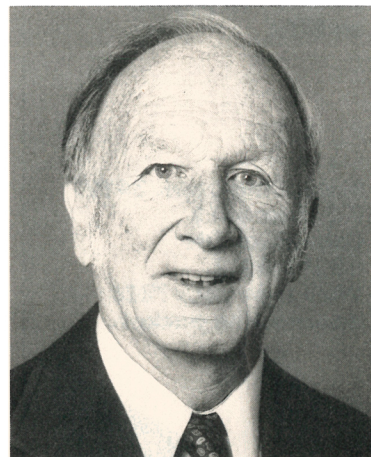
Edward N. Lorenz, professor emeritus of meteorology at MIT, has won the 1991 Kyoto Prize for science, which he will receive on 10 November in Kyoto, Japan. The prize, worth about \$300 000, is given annually by the Inamori Foundation of Japan in the categories of basic science, advanced technology and the creative arts. The awards were established in 1984 by Kazuo Inamori, chairman of the Kyocera Corp.

The prize citation recognized Lorenz's role in establishing the "theoretical basis of weather and climate predictability, as well as the basis for computer-aided atmospheric physics and meteorology." In addition it noted that he made "his boldest scientific achievement in discovering 'deterministic chaos,' a principle which has profoundly influenced a wide range of

basic sciences."

In the early 1960s Lorenz developed a numerical model of weather that used a computer to solve 12 simultaneous equations. He discovered that the model was very sensitive to initial conditions: Slight variations in input could produce widely diverging outputs. Lorenz realized this behavior implied that weather may be fundamentally unpredictable over times longer than about two or three weeks.

Subsequently Lorenz found a system of only three equations that exhibited similar behavior. A plot of the system as it evolved in phase space showed that the points traced a double-spiral pattern that was regular but never exactly repeated. This set of points is now known as the Lorenz attractor. In 1963 he published his discovery in the *Journal of*



Edward N. Lorenz

the Atmospheric Sciences. That paper was later a starting point for much research on what came to be called chaos theory.

Lorenz was a weather forecaster for the Army Air Corps during World