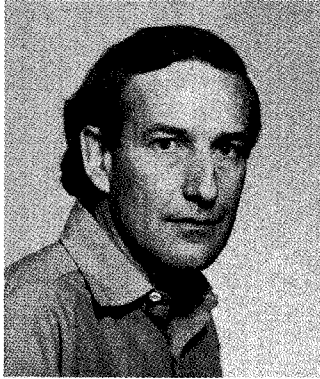


# 1979 MTT-S MICROWAVE PRIZE AWARD



Anthony R. Kerr



Daniel N. Held

For papers "Conversion Loss and Noise of Microwave and Millimeter-Wave Mixers: Part I – Theory, Part II – Experiment," MTT-26 No. 2, February, 1978, pp. 49-50.

Anthony R. Kerr (S'64-A'66-SM'78) was born in England on August 30, 1941. He received the B.E., M.Eng.Sc., and Ph.D. degrees from the University of Melbourne, Australia, in 1964, 1967, and 1969 respectively.

In 1969, he joined the Commonwealth Scientific and Industrial Research Organization, Sydney, Australia, to develop low-noise receivers for radio astronomy. From 1971 to 1974, he worked on low-noise cryogenic receivers for millimeter-wave astronomy with the National Radio Astronomy Observatory, Charlottesville, Virginia. He is presently with the NASA/Goddard Institute for Space Studies, New York, New York, developing low-noise receivers for millimeter and submillimeter wavelengths.

Dr. Kerr is a member of URSI Commission J and the Astronomical Society of Australia.

Daniel N. Held received the B.S., M.S. and Sc.D. degrees from Columbia University in 1968, 1971, and 1977, respectively. From 1968 to 1971 he was with Bendix Corporation's Navigation and Control Division, where his responsibilities included electro-optics and star tracker system design. From 1971 to 1973, he was with the Columbia Astrophysics Laboratory where he was involved in nuclear electronics and satellite system design. In 1973, he joined the Goddard Institute for Space Studies, where he supervised the design, development and implementation of a millimeter-wave radiotelescope and he did research of millimeter-wave mixers. Dr. Held is at present a Supervisor of Planetary Synthetic Aperture radar Systems Group at Jet Propulsion Laboratories, where he has been working since 1977. He is participating in the design of several new SAR missions, including the Venus Orbital Imaging Radars.

## 1979 MTT-S MICROWAVE CAREER AWARD

For contributions to waveguide, antenna, non-reciprocal and laser devices.

A. Gardner Fox was born in Syracuse, New York on November 22, 1912. He received the B.S. and M.S. degrees in electrical engineering from the Massachusetts Institute of Technology, Cambridge, in 1935.

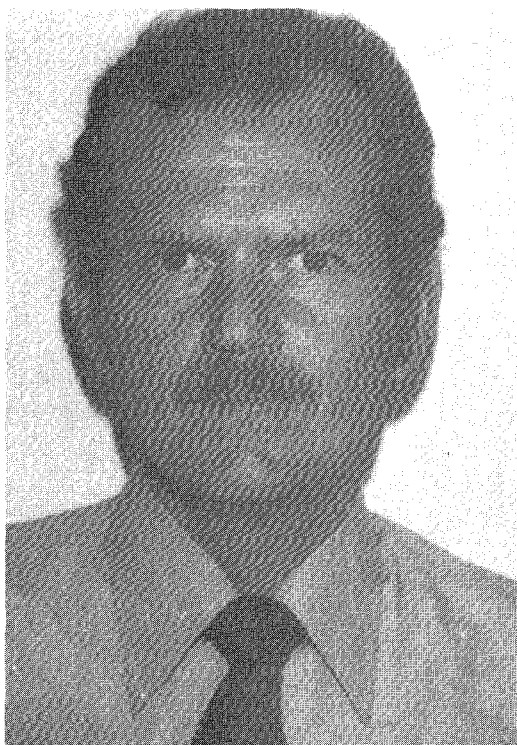
He has been a member of the technical staff of the Bell Laboratories since 1936. His early work was concerned with shortwave radio transmitters and an early radar project. In 1939, he joined the Radio Research Department at the Holmdel Laboratory where he engaged in research on waveguides. During World War II he was concerned with the design of microwave radar antennas and filters at the Whippany Laboratory. In 1944, he returned to Holmdel where he took part in the pioneering of the Bell System's first microwave radio-relay system, and later engaged in millimeter wave research. From 1953, he was in charge of the Department of Microwave Physics doing device research on ferrites, dielectrics, and semiconductors. In 1959, he became interested in the efforts to produce an optical maser, and turned his attention to the theory of optical resonators. He then headed the Department of Coherent Wave Physics which has been involved in research on lasers, modulators, and nonlinear optics. Since February 1976 until his retirement in 1978, he was head of the Department of Radio Systems Research. He holds 53 patents in the microwave and quantum electronics fields.

Mr. Fox has served on a number of IEEE technical and conference committees. He was an Associate Editor of the IEEE Journal of Quantum Electronics from 1965 to 1970, and served as its Editor until 1977. He was made a Fellow of the IRE in 1956 for his microwave contributions, and in 1977 was elected a Fellow of the Optical Society of America. In 1978, he was the recipient of the first Quantum Electronics Award given by the IEEE Quantum Electronics and Applications Society.



#### 1979 MTT-S MICROWAVE APPLICATION AWARD

For the development of microwave silicon and GaAs microwave analog and digital integrated circuit.



Dale H. Claxton was born in Stapleton, Staten Island, New York, on June 11, 1943. He received the B.S. and M.S. degrees in electrical engineering from U.C.L.A. in 1972 and 1974, respectively. He joined TRW Defense and Space Systems Group in April 1973, and is currently a Section Head in the Microwave Technology Department of the Communications and Antennas Laboratory. Since joining TRW, he has been involved in the research and development of microwave devices, circuits and subsystems for high performance communications systems. Areas of past and current research include broadband low noise IMPATT, bipolar and FET VCOs, bipolar transistor analog integrated circuits, GaAs transferred electron logic devices and FETs, high speed digital and analog GaAs integrated circuits, and the systems applications of the above.

Mr. Claxton is a member of Tau Beta Pi and the Electron Devices, Solid State Circuits and Microwave Theory and Techniques Societies of the IEEE.