Contributors to This Issue

Jacques A. Arnaud, Dipl. Ing., 1953, Ecole Supérieure d'Electricité, Paris, France; Docteur Ing., 1963, University of Paris; Docteur es Science, 1972, University of Paris; Assistant at E.S.E., 1953–1955; C.S.F., Centre de Recherche de Corbeville, Orsay, France, 1955–1966; Warnecke Elec. Tubes, Des Plaines, Illinois, 1966–1967; Bell Laboratories, 1967—. At C.S.F., Mr. Arnaud was engaged in research on highpower traveling-wave tubes and supervised a group working on noise generators. He is a supervisor, currently studying microwave quasioptical devices and the theory of optical wave propagation. Senior Member, IEEE; Member, Optical Society of America.

William F. Bodtmann, Monmouth College, 1957–61; Bell Laboratories, 1941—. Mr. Bodtmann has been engaged in research on longand short-haul microwave radio systems, frequency feedback receivers, and FM multiplex systems. He is presently engaged in work associated with communication systems operating at millimeter wavelengths.

Corrado Dragone, Laurea in E.E., 1961, Padua University (Italy); Libera Docenza, 1968, Ministero della Pubblica Istruzione (Italy); Bell Laboratories, 1961—. Mr Dragone has been engaged in experimental and theoretical work on microwave antennas and solid-state power sources. He is currently concerned with problems involving electromagnetic wave propagation and microwave antennas.

Bernard Glance, Dipl. Ing., 1958, Ecole Speciale de Mecanique et Electricité, Dipl. Ing., 1960, Ecole Supérieure d'Electricité, Paris (France); C.S.F., Research Center of Corbeville, Orsay, France, 1960–1966; Dipl. Docteur Ing., Sorbonne, Paris, 1964; S.F.D. Laboratories (subsidiary of Varian Assoc.), Union, N. J. 1966–1968; Bell Laboratories, 1968—. At C.S.F., Mr. Glance was engaged in research on microwave tubes. At S.F.D. Laboratories, he worked on high-power microwave amplifiers. Since joining Bell Laboratories, he has been working on microwave solid-state integrated circuits.

Beat Kleiner, Diploma (Mathematics), 1968; Dr. Sc. Math., 1971, Swiss Federal Institute of Technology, Zurich, Switzerland; University of California, Berkeley, 1971–1972; Bell Laboratories, 1972—. Mr.

Kleiner worked initially on statistical analysis of brainwaves; after joining Bell Laboratories he was mainly engaged in time series analysis. He is currently involved in a large statistical investigation of air pollution data.

- S. C. Liu, B.S.C.E., 1960, National Taiwan University; M.S., 1964, and Ph.D., 1967, University of California at Berkeley; Bell Laboratories, 1967—. Mr. Liu has been working in the areas of mechanical vibrations, random processes, structural dynamics, and earthquake engineering. Member, American Society of Civil Engineers.
- F. W. Ostermayer, Jr., S.B. and S.M. (Electrical Engineering), 1959, Massachusetts Institute of Technology; Ph.D. (Physics), 1968, Lehigh University; Bell Laboratories, 1959–1965, 1968—. Mr. Ostermayer initially worked on microwave masers and ferrite devices. Since rejoining Bell Laboratories in 1968, he has worked on infrared-to-visible conversion phosphors, electroluminescent pumping of YAG: Nd lasers, and, presently, on optical fiber waveguides. Member, American Physical Society, Sigma Xi, Tau Beta Pi, Eta Kappa Nu.

Douglas A. Pinnow, B. Eng. Phys., 1961, Cornell University; M.S., 1965, and Ph.D., 1967, the Catholic University of America; Naval Reactors Division of the U.S. Atomic Energy Commission, 1961–1965; Bell Laboratories, 1967—. Mr. Pinnow has been engaged in research and exploratory development in ultrasonics, nonlinear optics, and optical information processing and display. Since 1970 he has been involved principally in the evaluation and development of fiber optical waveguides and waveguide materials. Member, Optical Society of America, IEEE, American Ceramic Society, Tau Beta Pi.

Clyde L. Ruthroff, B.S.E.E., 1950, and M.A., 1952, University of Nebraska; Bell Laboratories, 1952—. Mr. Ruthroff has published contributions on the subjects of FM distortion theory, broadband transformers, FM limiters, threshold extension by feedback, microwave radio systems, rain attenuation, multiple-path propagation, linear phase modulators, injection-locked FM receivers, and coherent detection. He is interested in the extension of radio communication into the millimeter and optical wavelengths. Fellow, IEEE; member, Sigma Xi and the American Association for the Advancement of Science.

William E. Schroeder, B.S. (E.E.), 1965, M.S. (E.E.), 1967, Ph.D. (E.E.), 1972, The University of Michigan; Bell Laboratories, 1972-. Mr. Schroeder has worked on microwave solid-state devices and is currently studying circuit problems associated with such devices. Member, Eta Kappa Nu, Tau Beta Pi, Sigma Xi, IEEE.

William W. Snell, Jr., Williamsport Technical Institute, 1951; Bell Laboratories, 1955-. In his first years with Bell Laboratories. Mr. Snell was concerned with the design of waveguide components for use in the 4-, 6-, and 11-GHz common carrier band. He later participated in the Shotput and Project Echo satellite communications experiments, during which he designed several components of the Holmdel Space Communication Receiver. He is presently concerned with the design of hybrid integrated circuit frequency-converting devices for use at frequencies above 10 GHz.

Barton W. Stuck, B.S.E.E., M.S.E.E., 1969, Massachusetts Institute of Technology; Sc.D., 1972, Massachusetts Institute of Technology; Bell Laboratories, 1972—. Mr. Stuck is currently working on problems in mathematical physics, and detection and estimation of signals corrupted by nongaussian noise. Member, SIAM, MAA, IEEE.

K. K. Thornber, B.S., 1963, M.S. (E.E.), 1964, Ph.D. (E.E.), 1966, California Institute of Technology; Research Associate, Stanford Electronics Laboratories, 1966-68; Research Assistant, Physics Department, University of Bristol, 1968-69: Bell Laboratories, 1969-.. Mr. Thornber is a member of the Unipolar Integrated Circuit Laboratory. Member, Sigma Xi, Tau Beta Pi.

