

Contributors to This Issue

PAUL T. BRADY, B.E.E., 1958, Rensselaer Polytechnic Institute; M.S.E.E., 1960, Massachusetts Institute of Technology; Ph.D., 1966, New York University; Bell Telephone Laboratories, 1961—. Mr. Brady has worked in modeling on-off speech patterns and speech-level distributions, especially as they occur in two-way conversation over circuits containing voice-operated devices and transmission delay. Member, Acoustical Society of America, Sigma Xi.

MORGAN M. BUCHNER, JR., B.E.S., 1961, and Ph.D., 1965, The Johns Hopkins University; U. S. Army Active Duty, 1966–1968; Bell Telephone Laboratories, 1965–66 and 1968—. At Bell Laboratories, Mr. Buchner initially worked on the design and performance of data transmission systems. He is presently involved in studying the flow of traffic through telephone networks. He is a Supervisor in the Traffic Research Department. Member, IEEE, Tau Beta Pi, Sigma Xi, Eta Kappa Nu.

LEONARD G. COHEN, B.E.E., 1962, City College of New York; Sc.M., 1964, and Ph.D. (Engineering), 1968, Brown University; Bell Telephone Laboratories, 1968—. At Brown University, Mr. Cohen was engaged in research on plasma dynamics. At Bell Telephone Laboratories, he has concentrated on the study of optical transmission techniques. Member, IEEE, Sigma Xi, Tau Beta Pi, Eta Kappa Nu.

W. M. HUBBARD, B.S., 1957, Georgia Institute of Technology; M.S., 1958, University of Illinois; Ph.D., 1963, Georgia Institute of Technology; Bell Telephone Laboratories, 1963—. Mr. Hubbard's work has included analyses related to the design of millimeter-wave solid-state repeaters for use in a waveguide transmission system and the construction of prototype high-speed repeaters for this type of system. He is currently engaged in optical transmission research with emphasis on repeater techniques. Member, Sigma Xi, Tau Beta Pi, Phi Kappa Phi, American Physical Society.

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Hwang has been working in the area of statistics and combinatorial mathematics, including such problems as sorting, merging and group testing. Currently he is teaching at the National Ching-Hua University, Taiwan, on a six-month leave of absence. Member, A.S.A.

JOHN O. LIMB, B.E.E., 1963, and Ph.D., 1967, University of Western Australia; Bell Telephone Laboratories, 1967—. Mr. Limb has worked on the coding of television signals to reduce channel capacity requirements. He is currently working on methods of reducing frame-to-frame redundancy in moving pictures for *Picturephone*® visual telephone applications.

E. A. J. MARCATILI, Aeronautical Engineer, 1947, and E. E., 1948, University of Cordoba (Argentina); research staff, University of Cordoba, 1947-54; Bell Telephone Laboratories, 1954—. He has been engaged in theory and design of filters in multimode waveguides and in waveguide systems research. More recently he has concentrated on optical transmission media. Fellow, IEEE.

DIETRICH MARCUSE, Diplom Vorpruefung, 1952, Dipl. Phys., 1954, Berlin Free University; D.E.E., 1962, Technische Hochschule, Karlsruhe, Germany; Siemens and Halske (Germany), 1954-57; Bell Telephone Laboratories, 1957—. At Siemens and Halske, Mr. Marcuse was engaged in transmission research, studying coaxial cable and circular waveguide transmission. At Bell Telephone Laboratories, he has been engaged in studies of circular electric waveguides and work on gaseous masers. He spent one year (1966-1967) on leave of absence from Bell Telephone Laboratories at the University of Utah where he wrote a book on quantum electronics. He is presently working on the transmission aspect of a light communications system. Member, IEEE, Optical Society of America.

A. S. MAY, B.S.E.E., 1939, West Virginia University; Bell Telephone Laboratories, 1939-1962; American Telephone and Telegraph Company, 1962—. At Bell Labs. Mr. May was engaged in the design of radar equipment and served as Supervisor in the development of microwave radio-relay systems. At AT&T, he has been engaged in microwave and guided wave planning and in studies of frequency sharing by terrestrial and satellite communications systems. He currently is a Manager in research and development studies.

SCOTTY R. NEAL, B.A. (Mathematics), 1961, M.A. (Mathematics), 1963, and Ph.D. (Mathematics), 1965, University of California, Riverside; Research Mathematician, Naval Weapons Center, China Lake, California, 1964-1967; Bell Telephone Laboratories, 1967—. Since coming to Bell Laboratories, Mr. Neal has been primarily concerned with the analysis of various aspects of telephone traffic systems. He has also worked on applications of optimal linear estimation theory and certain aspects of communication theory. Member, American Math Society, SIAM, Sigma Xi.

THOMAS L. OSBORNE, B.S.E.E., 1961, M.S.E.E., 1963, Auburn University; Bell Telephone Laboratories, 1963—. Mr. Osborne has been involved in research on solid-state microwave radio systems and associated circuits. Member, IEEE, Sigma Xi, Phi Kappa Phi, Tau Beta Pi, Eta Kappa Nu, Pi Mu Epsilon.

MICHAEL J. PAGONES, B.S.E.E., 1961, and M.S.E.E., 1962, University of Illinois; Bell Telephone Laboratories, 1964—. Mr. Pagonis has been concerned with analytical studies of satellite and radio-relay systems. At present he is engaged in interference studies of digital modulation. Member, Tau Beta Pi, Phi Kappa Phi, Eta Kappa Nu, IEEE.

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