

Contributors to This Issue

HAROLD E. CURTIS, B.S. and M.S., 1929, Massachusetts Institute of Technology; A.T.&T. Co., 1929-34; Bell Telephone Laboratories, 1934—. He has specialized in work on transmission problems related to multi-channel carrier telephony, including microwave radio relay, coaxial cable and waveguide systems.

JAMES L. FLANAGAN, B.S., 1948, Mississippi State University; S.M., 1950 and Sc.D., 1955, Massachusetts Institute of Technology; faculty, Mississippi State University, 1950-52; Rockefeller Foundation Fellow, 1952-53; Air Force Cambridge Research Center, 1954-57; Bell Telephone Laboratories, 1957—. He has specialized in work on speech communication over narrow bandwidths, including studies of acoustical, physiological and psychological phenomena related to speech and speech perception. Since March 1961, he has headed the Speech and Auditory Research Department. Fellow Acoustical Society of America; member I.R.E., Kappa Mu Epsilon, Sigma Xi, Tau Beta Pi.

H. L. FRISCH, B.A., 1947, Williams College; Ph.D., 1952, Polytechnic Institute of Brooklyn; faculty, Syracuse University, 1952-54; faculty, University of Southern California, 1954-56; Bell Telephone Laboratories, 1956—. At the Laboratories, he has engaged in research in statistical mechanics. Member American Chemical Society, American Association for the Advancement of Science, American Physical Society, Sigma Xi.

S. B. GORDON, B.A., 1957, Vassar College; Bell Telephone Laboratories, 1957-61. Mrs. Gordon first did programming for IBM 704 and 7090 computers, in connection with the Laboratories' evaluation of the Air Force Air Defense System (SAGE). More recently she was concerned with the basic IBM 7090 computer program, and wrote the percolation program for this computer.

GEORGE B. GUCKER, B.E.E., 1945, Cooper Union; New York Telephone Company, 1925-26; Bell Telephone Laboratories, 1926—. At the Laboratories, Mr. Gucker has been primarily concerned with the de-

velopment of electron tubes. He presently supervises a group engaged in this work. Member Tau Beta Pi.

J. M. HAMMERSLEY, B.A., 1947, and M.A., 1949, Cambridge University; M.A., 1949, Oxford University; D.Sc., 1959, Oxford University; Sc.D., 1959, Cambridge University; Fellow of Trinity College, Oxford, 1961—. Dr. Hammersley has been a consulting physicist at Bell Telephone Laboratories on two occasions. He is Senior Research Officer, Institute of Statistics at Oxford University, and a consultant to the United Kingdom Atomic Energy Authority at Harwell, England. Fellow, Cambridge Philosophical Society, Institute of Mathematical Statistics, Royal Statistical Society; member Mathematical Association, International Statistical Institute.

RICHARD LINDNER, B.M.E., 1953, Cooper Union; M.S., 1954, Massachusetts Institute of Technology; Bell Telephone Laboratories, 1954—. As a member of the switching apparatus group he first was engaged in contact studies. Since 1956, he has been engaged in basic surface studies of semiconductors in the transistor development department. Member I.R.E., Tau Beta Pi, Pi Tau Sigma.

MARVIN C. PAULL, B.E.E., 1952, Clarkson College of Technology; Bell Telephone Laboratories, 1953—. At the Laboratories his work has included studies in the use of magnetic cores in computer design, research and development in the logical design of computer circuitry and computer programs. Member I.R.E., Eta Kappa Nu, Tau Beta Pi.

TIBOR RADO, Ph.D., 1922, University of Szeged (Hungary); Professor, Ohio State University, 1930—. Dr. Rado, Research Professor of Mathematics at Ohio State University, is the author of 5 books and more than 100 research papers on pure and applied mathematics. He was a visiting lecturer at the Laboratories in 1961. Member American Mathematical Society, Mathematical Association of America, American Association for the Advancement of Science, Sigma Xi, Pi Mu Epsilon.

HARRISON E. ROWE, B.S., 1948, M.S., 1950, and Sc.D., 1952, M.I.T.; Bell Telephone Laboratories, 1952—. He was initially associated with a group engaged in systems research. He later worked on mode conversion problems arising in multimode waveguides. Presently he is concerned with problems relating to optical masers. Member I.R.E., Sigma Xi, Tau Beta Pi, Eta Kappa Nu.

IRWIN W. SANDBERG, B.E.E., 1955, M.E.E., 1956, and D.E.E., 1958, Polytechnic Institute of Brooklyn; Bell Telephone Laboratories, 1958—. He has been concerned with analysis of military systems, particularly radar systems, and with synthesis and analysis of active and time-varying networks. Member I.R.E., Eta Kappa Nu, Sigma Xi, Tau Beta Pi.

A. J. SCHEPIS, B.M.E., 1952, City College of New York; M.M.E., 1960, New York University; Western Electric Co., 1956–57; Bell Telephone Laboratories, 1957—. At the Laboratories he was first responsible for guidance antenna design, waveguide design and liaison with aircraft companies for Laboratories' equipment installation. He later engaged in mathematical analysis of heat, vibration and stress. Recently he has been concerned with determining orbital elements from doppler frequency shifts obtained from a single satellite pass. Member American Rocket Society, American Society of Mechanical Engineers.

V. A. VYSSOTSKY, B.A., 1950, and M.S., 1956, University of Chicago; Bell Telephone Laboratories, 1956–61. At the Laboratories he engaged in advanced computer programming and research on speech analysis, using a digital computer. He was also concerned with automatic coding.

WILLIAM D. WARTERS, A.B., Harvard College, 1949; M.S., 1950, and Ph.D., 1953, California Institute of Technology; Bell Telephone Laboratories, 1953—. Since joining the Laboratories, Mr. Warters has engaged in studies of circular waveguides for long distance, broadband transmission. Currently, as head of the repeater research department, he is working on high-speed PCM repeaters for use in a waveguide transmission system. Member I.R.E., American Physical Society, Sigma Xi.

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