

Contributors to This Issue

H. W. Arnold, B.A., 1965, Occidental College; M.A., 1967, Sc.D., 1971, Columbia University; Bell Laboratories, 1971—. Mr. Arnold has conducted millimeter wave mobile radio propagation experiments and has investigated advanced communications satellite systems. He was involved in the design of the Crawford Hill COMSTAR beacon propagation receivers and is presently performing data analysis from that experiment. Member, IEEE.

John R. Cavanaugh, B.S. (Electrical Engineering), 1961, Ohio University; M.S. (Electrical Engineering), 1963, New York University; Bell Laboratories, 1961—. Mr. Cavanaugh has worked on determining acceptable picture quality standards for broadcast television transmission. He is currently a member of the Network Objectives Department working on subjective evaluations of digital telephone systems. Member, Phi Kappa Phi, Tau Beta Pi, Eta Kappa Nu.

Donald C. Cox, B.S. (E.E.), 1959, and M.S. (E.E.), 1960, University of Nebraska; Ph.D. (E.E.), 1968, Stanford University; U.S. Air Force Research and Development Officer, Wright-Patterson AFB, Ohio, 1960-1963; Bell Laboratories, 1968—. After coming to Bell Laboratories from Stanford where he was engaged in microwave trans-horizon propagation research, Mr. Cox was engaged in microwave propagation research in mobile radio environments and in high-capacity mobile radio systems studies until 1973. He is now doing millimeter wave satellite propagation and systems research. Senior Member, IEEE and member, Commissions B, C and F of USNC/URSI, Sigma Xi, Sigma Tau, Eta Kappa Nu, and Pi Mu Epsilon; Registered Professional Engineer.

William R. Daumer, B.S.E.E., 1972, M.S.E.E., 1973, Drexel University; Bell Laboratories, 1973—. Mr. Daumer is currently a member of the Digital Network Planning Department, where he is involved in studying the effects of various digital technologies on the transmission performance of the evolving telephone network. Earlier Bell Laboratories experience included work on modeling the economic impact on digital transmission systems in the toll network.

Bernard C. De Loach, Jr., B.S., 1951, M.S. (Physics), 1952, Auburn University; Ph.D. (Physics), 1956, Ohio State University; Bell Laboratories, 1956—. Mr. De Loach has worked in the areas of microwave and millimeter wave solid-state devices and more recently in light-emitting diodes and semiconductor lasers. He is currently head of the Lightwave Sources Department. Fellow, IEEE.

John L. Doane, B.E., 1964, Yale University; S.M., 1965, Ph.D., 1970, Massachusetts Institute of Technology; Bell Laboratories 1970–1977. From 1970 to 1975, Mr. Doane worked on theoretical and experimental determinations of delay distortion in WT4 millimeter waveguide. From 1975 to 1977, he did circuit design and systems engineering for the TSS-R computerized maintenance system for AR6A single sideband radio. Since 1977, he has been designing millimeter-wave instrumentation for monitoring plasma density and temperature at the Plasma Physics Laboratory of Princeton University. Member, IEEE.

Thomas D. Dudderar, B.S.M.E., 1957, Lehigh University; Sc.M., 1961, New York University; Ph.D., 1966, Brown University; Bell Laboratories, 1966—. Mr. Dudderar works in the Materials Research Laboratory. He has published research papers on mechanical properties of materials, photoelasticity, holographic interferometry, and laser speckle photography and has been awarded patents on mechanical testing techniques and stress analysis using holographic interferometry. Member, SESA, SES.

David D. Falconer, B.A.Sc., 1962, University of Toronto; S.M., 1963, and Ph.D., 1967, Massachusetts Institute of Technology; post-doctoral research, Royal Institute of Technology, Stockholm, 1966–1967; Bell Laboratories, 1967—. Mr. Falconer has worked on problems in communication theory and high-speed data communication. During 1976–77 he was a visiting professor of electrical engineering at Linköping University, Linköping, Sweden. He presently supervises a group working on digital signal processing for speech bit rate reduction. Member, Tau Beta Pi, Sigma Xi, IEEE.

Richard D. Gitlin, B.E.E., 1964, City College of New York; M.S., 1965, and D. Eng. Sc., 1969, Columbia University; Bell Laboratories 1969—. Mr. Gitlin is presently concerned with problems in data transmission. He is a member of the Communication Theory Committee of the IEEE Communications Society and is editor for Communication

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Stanley Kaufman, B.E., 1948, M.S., 1957, Johns Hopkins University; Bellcomm, 1968–1971; Bell Laboratories, 1972—. Mr. Kaufman has worked principally in structures and structural dynamics. At Bellcomm, he developed a model for the stability and performance of the Lunar Roving Vehicle. Mr. Kaufman is the author of numerous papers on the finite element method and has participated in the development of various piezoelectric devices. Associate Fellow, AIAA.

William A. Massey, B.A., 1977, Princeton University (Mathematics); Stanford University, 1977—. Mr. Massey spent the summers of 1977 and 1978 working at Bell Laboratories under the Cooperative Research Fellowship Program. He is currently attending Stanford University and is pursuing a Ph.D. in mathematics in the area of Stochastic Processes. Member, Sigma Xi, Phi Beta Kappa.

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Richard C. Miller, B.A. (Mathematics), 1949, University of Chicago; Ph.D. (Physics), 1957, University of Illinois; Bell Laboratories, 1959—. Mr. Miller has been concerned with the study of the nonlinear optical properties of materials, high-resolution laser microrecording systems, and the optical properties of semiconductor lasers. He is currently a member of the Lightwave Sources Department.

John A. Morrison, B.Sc., 1952, King's College, University of London; Sc.M., 1954 and Ph.D., 1956, Brown University; Bell Laboratories, 1956—. Mr. Morrison has done research in various areas of applied mathematics and mathematical physics. He has recently been interested in queuing problems associated with data communications networks. He was a Visiting Professor of Mechanics at Lehigh University during the fall semester 1968. Member, American Mathematical Society, SIAM, IEEE, Sigma Xi.

Judith B. Seery, B.A., 1968, College of St. Elizabeth; M.S., 1972, New York University; Bell Laboratories, 1968—. Ms. Seery does computing and analysis in the Mathematics and Statistics Research Center. She has recently participated in problems in fiber optics, minimal spanning networks, and multidimensional scaling. Member, Mathematical Association of America, Association for Women in Mathematics.

Peter G. Simpkins, Diploma in Technology, 1957, University of London; M.S., 1960, California Institute of Technology; Ph.D., 1965, Imperial College, London; AVCO Corporation, 1965–1968; Bell Laboratories, 1968—. Mr. Simpkins is currently working in the Materials Research Laboratory. He has published articles on gas dynamics, fluid mechanics, underwater acoustics, and fracture mechanics. During a leave of absence in 1974, he was Senior Research Fellow at the University of Southampton, England.

Aaron D. Wyner, B.S., 1960, Queens College; B.S.E.E., 1960, M.S., 1961, and Ph.D., 1963, Columbia University; Bell Laboratories, 1963—. Mr. Wyner has been doing research in various aspects of information and communication theory and related mathematical problems. He is presently Head of the Communications Analysis Research Department. He spent the year 1969–1970 visiting the Department of Applied Mathematics, Weizmann Institute of Science, Rehovot, Israel, and the Faculty of Electrical Engineering, the Technion, Haifa, Israel, on a Guggenheim Foundation Fellowship. He has also been a full- and part-time faculty member at Columbia University and the Polytechnic Institute of Brooklyn. He has been chairman of the Metropolitan New York Chapter of the IEEE Information Theory Group, has served as an associate editor of the Group's *Transactions*, and has served as co-chairperson of two international symposia. In 1976, he was president of the IEEE Information Theory Group. Fellow, IEEE, member, AAAS, Tau Beta Pi, Eta Kappa Nu, Sigma Xi.