

## Contributors to This Issue

**Thomas J. Aprille, Jr.**, B.S., 1967, Northeastern University; M.S., 1968, Ph.D., 1972 (Electrical Engineering), University of Illinois; The Magnavox Company, 1968–1970, Bell Laboratories, 1972—. Mr. Aprille is presently involved in the design of new multiplex equipment for the L5 long-haul coaxial system. Member, IEEE, Sigma Xi, Phi Kappa Phi, Tau Beta Pi, Eta Kappa Nu.

**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; CSF, Centre de Recherche de Corbeville, Orsay, France, 1955–1966; Warnecke Elec. Tubes, Des Plaines, Illinois, 1966–1967; Bell Laboratories, 1967—. At CSF, Mr. Arnaud was engaged in research on high-power traveling-wave tubes and supervised a group working on noise generators. He is presently studying optical wave propagation. Senior Member, IEEE; member, Optical Society of America.

**A. Descloux**, Math. Dipl., 1948, Swiss Federal Institute of Technology, Zürich; Ph.D. (Mathematical Statistics), 1961, University of North Carolina; Bell Laboratories, 1956—. Mr. Descloux spent 1955–1956 on the staff of the University of Washington where he taught mathematics and statistics. At Bell Laboratories, he has been concerned chiefly with the application of probability theory to traffic problems. Member, Institute of Mathematical Statistics, American Mathematical Society.

**Michael J. Gans**, B.S. (E.E.), 1957, Notre Dame University, M.S., 1961, Ph.D. (E.E.), 1965, University of California, Berkeley; Bell Laboratories, 1966—. At Bell Laboratories, Mr. Gans has been engaged in research on antennas for mobile radio and satellite communications.

**Donald R. Means**, B.E.E., 1961, University of Akron; M.E.E., 1963, and Ph.D., 1972, New York University; Bell Laboratories, 1961–1967, 1968–1969, 1972—. Mr. Means is currently engaged in computer-aided analysis and design of speech networks for telephone sets. Member, IEEE, Sigma Tau, Eta Kappa Nu.

**Calvin M. Miller**, B.S.E.E., 1963, North Carolina State University; M.S.E., 1966, Akron University; Bell Laboratories, 1967—. Mr. Miller has developed equipment and methods for transmission line charac-

terization. His present interests are in the area of fiber optics as a practical transmission medium. Member, Eta Kappa Nu, OSA.

**Gerry Miller**, B.E.S., 1963, Ph.D., 1969, Johns Hopkins University; Bell Laboratories, 1969—. Mr. Miller is a member of the Customer Interconnection Planning Department and is concerned with the effects of unbalanced terminal equipment on crosstalk performance and out-of-band signal power requirements. Member, Tau Beta Pi, Eta Kappa Nu, Sigma Xi.

**R. A. Semplak**, B.S. (Physics), 1961, Monmouth College, N.J.; Bell Laboratories, 1955—. Mr. Semplak, a member of the Antennas and Propagation Research Department, has done research on microwave antennas and propagation. He participated in the Project Echo and *Telstar*<sup>®</sup> communications satellite experiments. He currently is concerned with the attenuation effects of rain on propagation at 18.5 and 30.9 GHz. Member, Sigma Xi and Commission II of International Scientific Radio Union (URSI).

**Jagdeep Shah**, B.Sc. (Physics), 1962, University of Bombay, Bombay, India; Ph.D. (Physics), 1967, M.I.T.; Bell Laboratories, 1967—. Mr. Shah's interests include optical properties of semiconductors, high-intensity effects in semiconductors, properties of organic dyes and dye lasers, and photoexcitation of superconductors. Member, American Physical Society.

**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 cochairman of two international symposia. He is presently first vice-president of the IEEE Information Theory Group. Fellow, IEEE, member, AAAS, Tau Beta Pi, Eta Kappa Nu, Sigma Xi.