

PUBLICATIONS

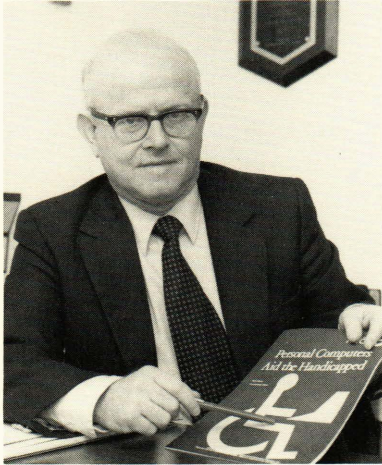
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PRESENTATIONS

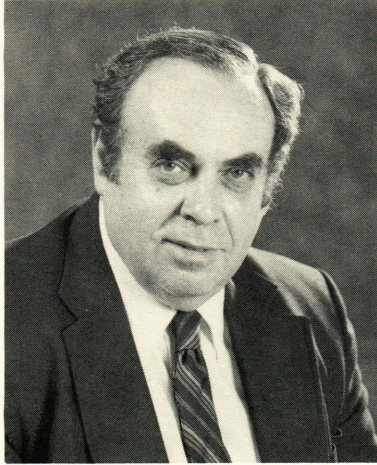
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- V. G. Sigillito, "Bounds for Eigenvalues of Membranes, Waveguides, and Plates," 40th National SIAM Meeting, Stanford Univ. (22 Jul 1982).
- The following papers were presented at the National Radio Science Meeting, Boulder, 13-15 Jan 1982:
- J. A. Giannini and D. L. Thayer, "Propagation Measurements from a Calibrated Source in the Ocean;"
- D. A. Bowser, J. W. Sari, and H. W. Ko, "Spectra of Geomagnetic Field Fluctuations from Ocean Surface Waves;"
- D. A. Bowser, L. W. Hart, and J. W. Sari, "Vertical Coherence of Geomagnetic Noise Propagating through Seawater;"
- J. W. Sari and D. A. Bowser, "Propagation of an ELF Transient Pulse in the Ocean;"
- J. W. Sari, R. I. Joseph, and M. E. Thomas, "Electromagnetic Scattering from Random Conductivity Fluctuations;"
- J. W. Sari and R. I. Joseph, "Tropospheric Propagation of Radiation in an Inhomogeneous, Stratified Atmosphere;"
- J. P. Skura, J. W. Sari, and H. W. Ko, "Application of the Parabolic Equation Method to Propagation in Inhomogeneous Refractive Layers."

THE AUTHORS



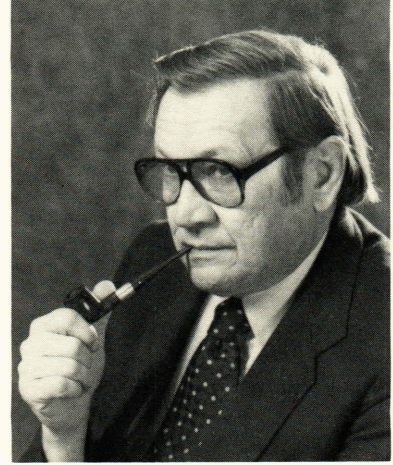
PAUL L. HAZAN obtained his B.S. degree in electrical engineering in 1952 from the Royal College of Science and Technology, U.K., and did graduate work in computer science at the University of Maryland. After working as a senior analyst with Sperry Rand, he became technical director of the Singer Co., Link Division, where he was responsible for developing real-time computing systems.

After joining APL in 1975, Mr. Hazan helped launch the Laboratory's microprocessor program and chaired the steering group that organized APL's Personal Computing program. He was project director for The Johns Hopkins University educational TV series on Personal Computing for schools, directed the Johns Hopkins First National Search for Applications of Personal Computing to Aid the Handicapped, and chairs the IEEE Computer Society's Executive Board on Personal Computing. Mr. Hazan is assistant to the Director of APL for advanced computer technology.



SAMUEL KOSLOV received the Ph.D. (1957, nuclear physics) from Columbia University. During 1954-64, four years of which he spent as assistant and associate professor of physics at Stevens Institute of Technology, his primary research areas were controlled fusion, plasmas, and nuclear weapons effects. He joined the DoD in 1964 and was Special Assistant for National Intelligence when he left in 1967 to join the Rand Corp. Research Council. He became special assistant for science to the Assistant Secretary of the Navy in 1972, receiving the Navy Superior Civilian Service Award in 1977.

Dr. Koslov joined APL in 1978. As assistant to the Director for technical assessment, he advises on the technical performance of various programs, and develops and encourages interaction of the various laboratory departments in developing new interdisciplinary approaches to problems of national interest. He is executive secretary of the Program Review Board.



ROBERT A. MAKOFSKI was employed by APL in 1957 as a specialist in fluid mechanics. As such, he conducted investigations in hypersonic flow, shock-wave/boundary-layer interaction, and in the design of hypersonic test facilities. In 1968, he became active in studies of urban transportation systems as manager of the Urban Transportation Program and as supervisor of the Transportation Technology Group (1974-82). In 1982, he was appointed head of the Technical Services Department. He has been associated with the University's Center for Metropolitan Planning and Research since 1974 as principal research associate and as a member of the Policy Committee.

Mr. Makofski has been a member of a number of transportation advisory committees including some sponsored by the Congressional Office of Technology Assessment, the National Research Council's Transportation Research Board, and the State of Maryland. Currently, he is chairman of the TRB's Committee on New Systems and Technology.



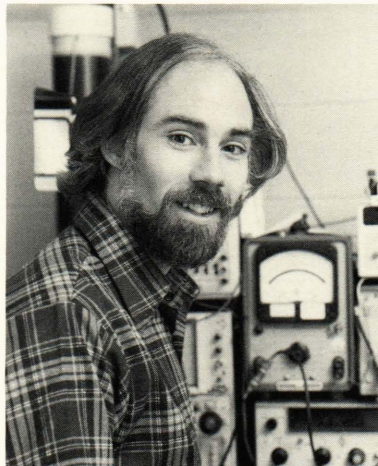
CHARLES FELDMAN was born in Baltimore in 1924. He holds the A.B. and M.A. degrees in physics from The Johns Hopkins University and the Ph.D. degree (cum laude) in physics from the University of Paris (1952). He became a section head at the Naval Research Laboratory (NRL) and subsequently a laboratory manager at Melpar, Inc., where he led research on thin-film microelectronics and

basic research on materials and devices. A specialist in solid state and thin films, he joined APL in January 1967 and currently heads the Solid State Physics Group. Dr. Feldman was awarded NRL's 1958 Outstanding Young Applied Scientist Award, a Research Society of America Applied Science Award, and several Navy Incentive Awards. He holds about a dozen patents.



ROBERT J. TAYLOR received the Ph.D. degree in applied physics from Cornell University in 1971. He initially worked for the Interand Corp. on acoustical detection techniques and the use of Barkhausen to investigate stress in metals. In 1972, he joined APL's Space Department, where he experimented with the use of Transit Improvement Satellites for passive submicrosecond time dissemination. He has since investigated systems and devices for energy generation and utilization.

Dr. Taylor recently conducted experiments to determine how well theoretical estimates of the magnetically induced electric fields from electric transmission lines compared to their measured values. He has also examined the potential safety hazard from such fields. He is presently investigating the short-term effects of spark discharge on people.



LEONARD B. RICHARDSON received the B.S. degree in biology from St. Mary's College of Maryland in 1973. During 1973-80, he conducted aquatic physiological and toxicological research concerning the Chesapeake Bay for the Academy of Natural Sciences of Philadelphia. He joined APL in 1980 as part of the new Aquatic Ecology Section located in Shady Side, Md. Since joining APL, Mr. Richardson has been engaged in research exploring the usefulness of ultrasonic sound in preventing the growth of troublesome aquatic invertebrates.