PUBLICATIONS
Compilation of principal recently published books and technical articles written by APL staff members.


HONORS AND AWARDS

P. J. Waltrip was honored on April 18, 1974 by being named the winner of the first Young Engineer-Scientist award of the National Capital Section of the American Institute of Aeronautics and Astronautics in Washington, D. C. A specialist in high-speed aerodynamics and airbreathing propulsion systems, Dr. Waltrip is Supervisor of the Supersonic Combustion Section of the APL Propulsion Group.

Mary M. Schaefer, Editor in the Space Development Department, has been named an Associate Fellow of the Society for Technical Communications. Miss Schaefer, who is a Past National President of the organization, received the award on May 16, 1974 at the 21st National Conference.


The following two addresses were presented at the International Conference on Tetrahedrally Bonded Amorphous Semiconductors, Yorktown Heights, New York, March 20–24, 1974:

K. Moorjani, N. A. Blum, and C. Feldman, "Effects of Substrate Temperature During Deposition on the Optical Constants of Silicon Films";

H. K. Charles, Jr. and C. Feldman, "Switching Dynamics in Amorphous Silicon Thin Films";

H. K. Charles, Jr. and C. Feldman, "Switching Dynamics in Amorphous Boron and Silicon Thin Films";

N. A. Blum and C. Feldman, "Mossbauer Study of Amorphous and Crystalline Tellurium."


The following two addresses were presented at the Spring Meeting of the Association for Research in Vision and Ophthalmology, Sarasota, Florida, April 24–29, 1974:

R. W. Flower, "Infrared Angiography of the Choroid--Its Clinical Potential and Limitations";

L. J. Viernein (APL) and I. P. Pollack (JHU, School of Medicine), "Precision of Constant Pressure Tonography."


D. E. Olsen, "Applications of Simul-
taneous Prediction Intervals,"  
Logistics Research Conference,  
Office of Naval Research and  
George Washington Univ., May  
8–10, 1974.
F. G. Satkiewicz, “Polyatomic Posi- 
tive Ion Mass Spectra of Oxides,”  
22nd Annual Conference on Mass  
Spectrometry and Allied Topics,  
American Society for Mass Spectrometry, Philadelphia, May  
H. J. Binck and J. H. Zouck, “Use  
of a Microprocessor in a Supervisory Control Application,”  
National Aerospace Instrumentation Symposium, Albuquerque, New  
W. E. Buchanan and E. F. Kiley,  
“Integrated Universal Pilot Warning/Collision Avoidance Display,”  
1974 International Symposium and Exhibition, Society for Information Display, San Diego, May  
R. F. Gasparovic, G. H. Emmons,  
and L. D. Tubbs, “Two Wavelength Measurements of the  
Ocean Surface Radiometric Clutter,”  
22nd National Infrared Information Symposium, Wright- 
Patterson Air Force Base, Ohio,  
J. A. Schetz and F. S. Billig, “Ap- 
proximate Analysis of Base Burning in Supersonic Flow,”  
Workshop on Aerodynamics of Base Combustion, Purdue University,  
Lafayette, Indiana, May 29–30,  
1974.

The following two addresses were presented at the 28th Annual Frequency Control Symposium, Atlantic City, New Jersey, May 29–30, 1974:
R. J. Taylor, “Satellite to Ground Timing Experiments”;
Association for Computing Machinery, San Diego, May 1974.

APL COLLOQUIA

Apr. 12—“Recording and Reproduction of Music,” by A. G. Bose, MIT and Bose Corp.
Apr. 19—“Nonlinear Transfer Equations,” by N. G. Van Kampen, Univ. of Utrecht and Univ. of Texas.
May 3—“Electron-Hole Condensation in Semiconductors,” by R. N. Silver, California Inst. of Tech.
May 10—“A Computer-Assisted Tomographic X-Ray Scanner,” by R. S. Ledley, Georgetown Univ.


WITH THE AUTHORS

C. K. Jen, the author of “Excitation Energy Transfer in Solids,” was born in Chin-Yuang District, Shansi, China. He received a B. S. in electrical engineering from the Massachusetts Institute of Technology, an M. S. in radio communication from the University of Pennsylvania, and a Ph. D. in physics from Harvard University. Before coming to APL in 1950, Dr. Jen was Instructor of physics at Harvard; Professor of Physics and Electrical Engineering at the National Tsing Hua University, Peiping, China; Professor of Physics and Electrical Engineering at the National Southwest Association University, Kunming, China; and Research Lecturer in electronics at Harvard. At APL, Dr. Jen has collaborated in pioneering research on the electron spin resonance of free radicals trapped in inert matrices at liquid helium temperature, has studied the microwave spectra of molecules, and most recently has been involved in the study of triplet state molecules by simultaneous excitation by optical and microwave radiations. Since 1953 Dr. Jen has been Supervisor of the Microwave Physics Group and in 1958 he was appointed Vice-Chairman of the APL Research Center. He was the
first William S. Parsons Visiting Professor at the Johns Hopkins University in 1966-1967. He is a Fellow of the American Physical Society, a Fellow of the Washington Academy of Sciences, a member of the Philosophical Society of Washington, and an elected Fellow of the Academia Sinica (Taiwan).

E. F. Prozeller, coauthor of "The TRIAD PRN Navigation Experiments," is a native of Buffalo, N.Y. He received the B. E. E. degree from the University of Detroit and the M. S. E. E. from the University of Illinois. A specialist in analog and digital signal processing, radio navigation systems and carrier and modulation tracking receivers, Mr. Prozeller was employed by APL in 1965. His first assignment was in the Space Radio Frequency Systems Group of the Space Development Department where he contributed to the design of the Geoeceiver satellite navigation receiver. His latter assignments have included participation in the development of a hybrid OMEGA/Transit navigation system for aircraft and the study of modulation methods for use in advanced navigation satellites. In 1971 he was appointed SDO Project Scientist responsible for the technical development, coordination, and evaluation of the TRIAD PRN experiment. Mr. Prozeller is presently a section supervisor in the Space System Applications Group and is a member of the Institute of Electrical and Electronics Engineers.

Verne Schwab, coauthor of "The TRIAD PRN Navigation Experiments," is a native of northwestern Pennsylvania. He received the B.A. degree from St. John's College in Annapolis, Maryland. Mr. Schwab joined the APL staff in 1946 as a physicist in the Bumblebee Launching Group and performed studies of stabilization and control of launching test vehicles. From 1950 to 1965, as a member of the Bumblebee Dynamic Analysis Group, he participated in design and performance studies of missile propulsion and guidance systems, radar search techniques and ICBM interception systems. In 1961 he was a member of the APL team that performed the first integral doppler navigation experiments with a Transit satellite. Since 1965 he has been a member of the Space Development Department and engaged in the design and analysis of satellite navigation systems. He is a member of the American Mathematical Society.