

The two following papers were presented at the IEEE Group on Antennas and Propagation International Symposium, Ohio State University, Columbus, September 14-16, 1970:


The following three papers were presented at the American Physical Society Plasma Physics Division Meeting, Washington, D.C., November 4-7, 1970;

- E. P. Gray, “The Guiding Center in Inhomogeneous Fields;”


The following two papers were presented at the Fall Joint Computer Conference, Houston, November 17-19, 1970:


The following five papers were presented at the 14th Weather Radar Conference, Tuscon, Arizona, November 17-20, 1970:

J. H. Meyer, “Radar Observations of Land Breeze Fronts at Wallops Island, Virginia;”

E. B. Dobson, “Doppler Radar Measurements of Mean Wind Variations in the Clear Atmosphere;”

T. G. Konrad, “The Dynamics of the Convective Process in the Clear Air as Seen by Radar;”


I. Katz, “A Comparison of Remote
and In-Situ Measurements in Convection."


The following two presentations of "Magnetic Hyperfine and Zeeman Interactions in the c" State of H." were made by A. N. Jette:

Department of Physics, University of British Columbia, Vancouver, B. C., November 19, 1970;


M. H. Friedman, "Fluid Dynamics in the Cornea," Bioengineering Division Seminar, Polytechnic Institute of Brooklyn, New York, November 24, 1970.


M. H. Friedman (APL) and K. Green (JHMI), "Free Swelling Rate of Bare Corneal Stroma," American Institute of Chemical Engineers 63rd Annual Meeting, Chicago, December 1, 1970.


M. H. Friedman, "Irreversible Thermodynamics and Mass Transfer in the Cornea," University of Pennsylvania Graduate - Faculty Seminar, Philadelphia, December 14, 1970.

Two papers were presented by R. M. Fristrom at the 4th Indian National Symposium on Combustion, IIT, Kanpur, India, December 14-16, 1970:

"Flame Chemistry—1970";
"Combustion and Air Pollution—Contrasts between American and Indian Problems."

The following two papers were presented at the Computer Designer's Conference and Exhibition, Anaheim, California, January 19-21, 1971:

J. A. Perschy, "A General Purpose Computer for Satellite Applications;"

G. D. Wagner and R. C. Moore, "The Ballad Computer."


T. Tanaka (Catholic University of America), K. Moorjani (APL), and S. M. Bose (Catholic University of America), "Coherent Potential Theory of Off-Diagonal Randomness," Annual Meeting of the American Physical Society, New York City, February 1-4, 1971.


The following two papers were presented at the 15th Annual Meeting of the Biophysical Society, New Orleans, Louisiana, February 16, 1971:

M. H. Friedman (APL) and K. Green (The Johns Hopkins Medical Institutions), "Ion Binding and Donnan Equilibria in Rabbit Corneal Stroma;"

K. Green (The Johns Hopkins Medical Institutions) and M. H. Friedman (APL), "Potassium and Calcium Effects on Sodium Binding in Corneal Stroma."


Jan. 8 - "Galactic Confinement of Cosmic Rays," by M. M. Shapiro, Naval Research Laboratory.


W. H. Avery, Supervisor of the Aeronautics Division, has been appointed a member of the Department of Commerce Technical Advisory Board Panel on SST Environmental Research. The appointment was made by the Office of the Assistant Secretary of Commerce for Science and Technology.

L. L. Cronvich, Supervisor of the Aerodynamics Group, has been appointed a member of the Publications Committee of the American Institute of Aeronautics and Astronautics.

A. I. Mahan, a member of the Research Center, has served as a member of the Evaluation Panel of the National Academy of Sciences that selected recipients of Federal Postdoctoral grants to be awarded during fiscal year 1972.

T. O. Poehler, a member of the Microwave Physics and Plasma Physics Groups, has been presented the National Capital Award as the outstanding young engineer in the Washington metropolitan area. The award is sponsored by the D.C. Council of Engineering and Architectural Societies.

A. M. Stone, Assistant to the Director, has been appointed to the Editorial Board of the Journal of Defense Research, Series B: Tactical Warfare, published by the Institute for Defense Analysis for the Advanced Research Projects Agency of the Department of Defense.


A. G. Schulz, a native of California, holds the A.B. and Ph.D. degrees in physics from the University of California at Berkeley. He was originally employed at APL from 1945 to 1947 assigned to flight test telemetering of supersonic ramjet development vehicles. He left to go back to school and after receiving the Ph.D. in 1952 he returned to APL as Supervisor of the Missile Test Group. He has held several other supervisory positions including the following: From 1954 to 1956 he was Supervisor of the Transistor Circuit Development Group; from 1956 to 1958, Supervisor of the Missile Guidance Counter-Countermeasures Group; from 1958 to 1960, Supervisor of the Typhon Radar and Fire Control System Division; and from 1960 to 1962, Supervisor of the Typhon Missile Guidance Division. Since 1962 he has been Co-Supervisor of Excitation Mechanism Research in the Research Center. Dr. Schulz has been a member of the Digest Editorial Board since 1963. Having engaged in research in nuclear medicine for several years under the auspices of The Johns Hopkins Medical Institutions, Dr. Schulz holds appointments as Associate Professor in the department of Radiological Science in The Johns Hopkins University School of Hygiene and Public Health and in the department of Radiology in the School of Medicine. He is a member of the American Physical Society, the Philosophical Society of Washington, the Society of Nuclear Medicine, and the American Association for the Advancement of Science.

L. C. Kohlenstein, a native Marylander, received the B. S. degree in electrical engineering from The Johns Hopkins University in 1962. Employed at APL in 1963, he first studied the effects of quantization and limiting in analog-to-digital converter in a radar system and assisted in the design of the analog portion of the circuitry. Since 1965 he has been interested principally in radioisotope scanning system research, including developing a digital computer simulation of the scanning process, conducting visual perception experiments, modeling the human observer in a scan viewing situation, and evaluating the effect of image processing. Recently, he has been interested in modeling large environmental and social systems and is involved in a study of the Chesapeake Bay region.

L. G. Knowles was co-author of an earlier paper in the Digest on "The Flexicon—A Medical Display Unit for Digital Data," in the January-February 1968 issue. A native of Pennsylvania, he holds the B. S. and M. S. degrees in electrical engineering; the former was received from the Pennsylvania State University and the latter from the University of Illinois in 1963. Employed at APL in 1961, Mr. Knowles is a specialist in digital systems engineering, applications of digital processors to weapon control systems, and generalized digital instrumentation techniques. Since 1966 he has been concerned principally with the design and development of a digital simulation and display system for studying medical radioisotope scanners used in the detection of lesions in soft organs. He is a member of the Society of Nuclear Medicine.
The authors of the paper titled "Modular Externally-Powered System for Limb Prostheses," shown above examining some of their equipment, are (left to right): Dr. G. Schmeisser, C. H. Hoshall, and W. Seamone.

**Dr. Gerhard Schmeisser**, who is a native of Baltimore, received the A. B. degree from Princeton University, and the M. D. degree from The Johns Hopkins University School of Medicine in 1953. After completing his resident training in Orthopedics at The Johns Hopkins Hospital, he entered private practice. In 1959 he returned to Hopkins to accept full-time hospital and university appointments in order to pursue his interests in research and medical education. Dr. Schmeisser is Chief of Orthopedic Surgery at the Baltimore City Hospitals and Associate Professor of Orthopedic Surgery at both The Johns Hopkins University School of Medicine and the University of Maryland Medical School. Since 1966 he has directed the Limb Prosthesis Clinic at The Johns Hopkins Hospital and he has been working with Messrs. Seamone and Hoshall on externally-powered upper limb prosthetic devices since 1969. Dr. Schmeisser is a Fellow of the American Academy of Orthopedic Surgeons.

**C. H. Hoshall** is a native of Maryland and received the B. S. degree in electrical engineering from the University of Maryland in 1949. The same year he was employed as an electronics engineer at the National Security Agency, Washington, D. C. After leaving NSA in 1955, he worked in electronics at the ACF Industries and the Minneapolis-Honeywell Regulator Co., joining the Applied Physics Laboratory in 1962. At APL he was first an engineer in the Space Department and the Life Sciences Group; in 1967 he joined the Controls Group in the Missile Systems Division. The major portion of Mr. Hoshall's time in the recent past has been devoted to the development of myoelectrically-controlled upper extremity prostheses.

**W. Seamone** contributed a paper to the November-December 1964 issue of the Digest on "Feedback Technique Improves Efficiency of Hydraulic Servos" and was co-author of a paper titled "A Servo-Controlled Pulsatile Heart Pump" which appeared in the November-December 1969 issue. He is a native of West Virginia and received the B. S. degree in aeronautical engineering from The Catholic University of America in 1950. Before coming to APL in 1953, he was employed by Bell Aircraft Corp. where he was a specialist in hydraulic servomechanisms. At APL Mr. Seamone has been involved in the development of a variety of automatic flight control systems. In the last few years he has become interested in biomedical engineering projects and has done research on an artificial heart pump and upper limb prosthetics. Since 1966 he has been Supervisor of the Controls Group in the Missile Systems Division.