

Authors

John L. Craft

B.E.E. cum laude, New York University, 1951; M.E.E., 1959, Syracuse University. Joined IBM in 1951 and worked on various design teams in development of the IBM 701, 702, and 704. Later was group leader in development of transistorized high-gain feedback amplifiers and sampled-data systems for homing-navigation airborne equipment. More recently served as member of the technical staff of IBM Director of Research. Is now developing data processing equipment to solve sentence analysis problems in language translation at Thomas J. Watson Research Center. Member of Tau Beta Pi, Eta Kappa Nu, and the IRE Professional Group on Electronic Computers.

Ernest H. Goldman

M.S. in E.E., 1949, and D.Sc. in E.E., 1952, Harvard University. Has been with IBM engineering and research laboratories since 1951. After developing circuits for reading and writing on magnetic tapes in 1952 and 1953, he became one of the early workers on the SAGE system, where he was in charge first of input-output development then of test planning and system testing. In 1957 he joined the Research Laboratory, where his interests have been in commercial systems research and language processing machines. For the past year he has been the manager of automatic translation research and Director of Experimental Systems Research at the Thomas J. Watson Research Center. Awarded Bowdoin Prize for graduate students, Harvard, 1952. Is a member of the Harvard Engineering Society, the ACM and Sigma Xi, and is a senior member of the IRE.

Rolf Landauer

A.B., 1945; A.M., 1947; and Ph.D., 1950, Harvard University. National Advisory Committee for Aeronautics, 1950-52. Joined IBM in 1952 as a theoretical solid-state physicist. At present is manager of the Physics Division of the Solid-State Science Department at the Thomas J. Watson Research Center. Is Fellow, American Physical Society.

Martin A. Leibowitz

A.B. with highest honors, 1956, Columbia College; A.M., 1957, Ph.D., 1961, Harvard University. Was Research

Assistant at Harvard University from 1957 to 1960. Joined IBM in 1960 at Ossining Laboratory, Advanced Systems Development Division, and has been engaged in the study of statistical problems associated with large-scale communication systems. Is a member of Phi Beta Kappa.

Mitchell P. Marcus

B.I.E., Ohio State University, 1948. Attended University of New Hampshire and Princeton University. Joined IBM in 1948 in Customer Engineering. Transferred to the Endicott Development Laboratory in 1951. Responsible for the circuit design of several IBM machines. From 1954 to 1959 assigned to the Engineering Planning Department. Is presently an Advisory Engineer in the Basic Systems Sciences Group, General Products Development Laboratory. Member of Phi Lambda Phi and Tau Beta Pi.

Jürgen Moser

Dr. rer. nat., Mathematics 1952 at University of Göttingen. Subsequently assistant in Göttingen and on a Fulbright grant at New York University. From 1955-57 was research associate and assistant professor at New York University. Taught from 1957 to 1960 at M.I.T. Since 1960 has been Professor of Mathematics at New York University. Consultant to Mathematics Department, IBM Research. Field of interest has been ordinary and partial differential equations and applications. 1961 Sloan Fellow; member of the American Mathematical Society.

William H. Rhodes, Jr.

B.S.E.E., 1947, Clarkson College of Technology. Joined IBM in 1947 as a customer engineer in New York City. Transferred to Product Development Laboratory in Poughkeepsie in 1954. His work has included design of electronic computers and input/output control units, and was manager of the High-Speed Memory Development Program. Is presently engaged in memory techniques development, Data Systems Division Development Laboratory.

Louis A. Russell

S.B.E.E. in Electrical Engineering, 1950, Massachusetts Institute of Technology; M.S.E.E., 1961, Syracuse Uni-

versity. Was affiliated with Dynamic Electronics, New York, Inc., as Field Engineer to U. S. Air Force on Airborne Communications Equipment. At the Rome Air Development Center, he worked on radio direction finder equipment. Joined IBM in July, 1953 in Research and Development Engineering Department on magnetic devices, logic circuits, and storage techniques. Is presently engaged in the development of new storage techniques in the Data Systems Division Development Laboratory. Member of IRE.

Fred E. Sakalay

B.E.E., 1950, Rensselaer Polytechnic Institute. Joined IBM as a customer engineer in 1950. Joined the Product Development Laboratory in Poughkeepsie in 1955, and worked on development of a small calculator. At present is working in the Data Systems Division in the field of high-speed memory development.

Gerald J. Sprokel

Studied physical chemistry and theoretical physics at Utrecht University, Netherlands, receiving a Ph.D. degree in 1952. Came to the United States in 1954, sponsored by the American Visco Co., to study distribution finishes on yarns; subsequently developed instrumentation to measure electrostatic charge distribution on yarn. In 1956 studied at Oak Ridge Institute for Nuclear Studies and started a radioisotope laboratory at American Visco Co. Joined IBM General Products Division at Endicott in 1958 as a radiochemist; is presently developing radiation detection instruments.

Warren B. Strohm

B.E. in E.E., Tulane University of Louisiana, 1947. Graduate studies at Polytechnic Institute of Brooklyn and Syracuse University. From 1947-1952, worked in design of industrial control in chemical processing and power generation industries. Joined IBM in 1952 and did development work on one of the first ferrite computer memories. Later did research on magnetic materials and components. Now doing research in computer techniques for automatic translation of natural languages at Thomas J. Watson Research Center. Is licensed Professional Engineer in New York; is also member of IRE Professional Group on Electronic Computers.

John A. Swanson

S.B. in Physics, 1946 summa cum laude; A.M. in Physics, 1947, Harvard University. Joined IBM in 1951 after additional studies at Harvard and was engaged largely in work on theoretical solid state physics at the Poughkeepsie Research Center. John Swanson died accidentally on January 6, 1960, while on vacation.

Robert M. Whalen

B.E.E., 1949, Cornell University. Joined IBM at the Poughkeepsie Product Development Laboratory in 1951. Participated in the development of the central processing unit of the IBM 702 and the core memory of the IBM 705. Has been working in solid state memory development, Data Systems Division, since 1958. Previously worked in data transmission at the U. S. Signal Corps Engineering Laboratories at Fort Monmouth, N. J. Is a member of the IRE and of its Professional Group on Electronic Computers.