Authors

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B.A. in Physics, 1949, Kansas State Teachers College; M.S. in Physics, 1951, Kansas State University. Joined IBM in 1956 at San Jose and worked in the fields of x-ray diffraction, magnetic thin films, electron mirror microscopy, magnetic head design, and speech synthesis, at the Research Laboratory until 1961. Did experimental research on Kerr magneto-optic readout of magnetically recorded information with Ne-He gas laser from 1961-1963, as member of the advanced technology group of the Systems Development Division, San Jose. Manager of photo-optics group from 1963 till present, with responsibility for photographic and optical technology for the 1350 Photo Image System and the 1360 Photo Digital System.

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B.S., 1952-53, University of Paris; Lic. es-Sci., 1957, University of Paris and Rennes; Ph.D. in Applied Mathematics, 1961, Faculté des Sciences, Grenoble. Joined IBM World Trade Corporation in 1960 at the IBM France Laboratory and was engaged in research on applications of modern algebra to coding and switching theory. From 1963 until 1965 he worked on advanced modem technology and in 1965 was given corporate technological responsibility for modem development. Since December 1965, he has been technical advisor to the Vice President-Chief Scientist of IBM.

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B. S., 1962, Morgan State College; M. S., 1965, Howard University, both in Physics. Has been a graduate teaching assistant, in the Department of Physics at Howard University, and an instructor in science education at Morgan State College. Worked at the Thomas J. Watson Research Center, Yorktown Heights, during the summer of 1966 on problems in organic dye lasers and spectroscopy. During academic year beginning September, 1966, will be a part-time instructor at Morgan State College while working toward a Ph.D. in Physics at Johns Hopkins University. Member, Sigma Pi Sigma, and National Honor Physics Society.

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M.S., 1958, and Ph.D., 1962, in Electrical Engineering, Technische Hochschule, Darmstadt. Joined IBM in 1961 to work in the thin magnetic film group at the Zurich laboratory on pulse deformation and attenuation on striplines, the dynamic switching behavior of thin magnetic films in a conducting surrounding, array technology, and testing. His present activity is in the field of general stripline research. Received the NTG award of the Nachrichten Technische Gesellschaft in 1963 for his work on short, inhomogeneous transmission lines as microwave absorbers. Member, Nachrichten Technische Gesellschaft.

Gerhard Kohn

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M.S., 1954, and Ph.D., 1958, in Electrical Engineering, Technical University of Stuttgart. From 1955 to 1960 was a member of the scientific staff of the Institute for Communications Engineering at the University, where he worked on nanosecond pulse circuits. He received an outstanding contribution award from the Nachrichtentechnische Gesellschaft for this work. He joined the IBM Research Laboratory at Zurich in 1960, where worked on thin magnetic film memories; in 1962 he became manager of this project. His main interests at Zurich were in very fast film memories for nondestructive readout. In 1966 he joined the faculty of the Technical University of Stuttgart as a full professor of electrical engineering and as director of the Institute for Communications Engineering. Member, IEEE, Nachrichten Techische Gesellschaft, and Association of German Electrotechnologists.

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Served as Radar Technician in United States Air Force, 1950-1954. Employed by the Department of Justice as electronic specialist, 1954-1960. Studied physics at Long Island University and is now attending Marist College, Poughkeepsie, N.Y. Joined IBM in 1960 and is presently working on optical resonance research at the Thomas J. Watson Research Center.

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B.S.E.E., 1954, Northeastern University. Joined IBM at Poughkeepsie in 1954. Until 1960 his major assignments were in the design and development of magnetic devices and circuits. Since then, has been working in main memory development with recent emphasis on high-speed ferrite core memories. Member, Tau Beta Pi and Eta Kappa Nu.

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Diploma in Physics, 1950, Dr. rer. nat., 1952, Martin Luther University, Halle, Germany. Was Research Assistant at the Physics Department of the University of Halle from 1950 to 1954, then worked as a physicist in the research and development laboratories of the Werk für Bauelemente der Nachrichten-technik Teltor-Berlin, Germany from 1954 to 1958, and at the Intermetall Company, Freiburg-Breisgau, Germany from 1958 to 1961. Joined IBM in 1961 as a physicist in the Zurich Research Laboratory. His present field of interest is fast active devices.

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M.S. in Physics, 1953, University of Hamburg, Germany; Ph.D. in Physics, 1958, University of Erlangen, Germany. Was a research physicist in the Photo Research Section of the U. S. Army Signal Research and Development Laboratory, Fort Monmouth, New Jersey, working on fundamental studies in image evaluation techniques. Joined IBM in 1962 at the development laboratories in San Jose where he was engaged in studies on properties of photo-optical image-forming systems. As staff member of the San Jose Research Laboratory, was working on the production and evaluation of computer-generated binary holograms. Currently, working on special programming problems in the Boulder Development Laboratory. Member, Deutsche Physikalische Gesellschaft, Society of Photographic Scientists and Engineers, Optical Society of America, and Deutsche Gesellschaft für Angewandte Optik.

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B.Sc., 1951, and Ph.D., 1956, in Physics, Carnegie Institute of Technology. Following a post-doctoral year at Carnegie, during which time he co-authored the text *Principles of Electricity and Magnetism*, he joined IBM at the Research Center. At IBM he has held a number of positions, including manager of the metal physics group in the Research Center, 1958-60; visiting scientist in the IBM Zurich Laboratory, 1961-62; manager of magnetic film memory array development in the Components Division, 1962-64; technical assistant to the director of processors and storage in the Systems Development Division, 1965-66; and currently is manager of technical planning for the Research Division. Dr. Pugh has twice been Program Chairman of the INTERMAG Conference 1965 and 1966, is a senior member of the IEEE, a Fellow of the American Physical Society, and a member of Sigma XI and the American Association for the Advancement of Science.

Dieter Seitzer

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M.S., 1957, Ph.D., 1961, in Engineering, University of Technology, Stuttgart. From 1958 to 1962 he was Assistant in the Department of Communications Theory and Electronic Engineering at the University, and from 1961 to 1962, held a lectureship there on Introduction to the Design of Electronic Devices. Joined IBM at Zurich in April 1962 to work on electronic devices and magnetic film memories. At present he is manager of a group developing fast-pulse

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William T. Siegle

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B.E.E., 1960, M.E.E., 1961, Ph.D., 1964, Rensselaer Polytechnic Institute. Joined the Components Division at Poughkeepsie in 1964, working in the film memory development area. Transferred in 1965 to the Systems Development Division, Burlington, where he is presently manager of device development in an advanced film memory program. Member, American Physical Society, IEEE and Sigma Xi.

Victor T. Shahan

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B.S. in Electrical Engineering, 1956, University of Notre Dame; M.S. in Electrical Engineering, 1957, Carnegie Institute of Technology. Joined the magnetics research department at IBM Poughkeepsie in 1957 and worked on ferrite core characterization. From 1960-62, he worked on ferrite and magnetic film devices for high performance memory at the Thomas J. Watson Research Center. Transferred to Poughkeepsie in 1963, where he continues to work on memory development.

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George E. Werner

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B.S. in Physics and Mathematics, 1951, Lebanon Valley College. Joined IBM in 1954 at the development laboratories in Poughkeepsie. His early work was in the development of memory units. He later worked on the STRETCH system and studied the capabilities of multiprogramming systems in general. He was appointed manager of high-speed memory development in 1964 and was transferred to Burlington in August, 1966, as manager of advanced film memory product development.

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B.E.E., 1949, Cornell University. Previously worked in data transmission at the U. S. Signal Corp Engineering Laboratories at Fort Monmouth, New Jersey. Joined IBM at the Poughkeepsie development laboratories in 1951, where he participated in the development of the central processing unit of the IBM 702 and the core memory of the IBM 705. He has worked in solid-state memory developments since 1958. At present he is manager of an advanced ferrite memory development group. Member, IEEE.