

# Authors

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B.S. in Mathematics and Physics (first rank in the University), 1950, Bombay University; M.S. in Mathematics (first rank in the University), 1952, Karnatak University, India; Ph.D. in Programming Mathematics, 1956-60, Boston University; graduate studies in Mathematical Statistics, 1958-61, Columbia University; graduate studies in Electrical Engineering, 1962, Massachusetts Institute of Technology; graduate studies in Operations Research, 1965-present, New York University. Has been an Assistant Professor of Mathematics at Wilson College, Bombay University, and an instructor at the Boston University Graduate School. Joined IBM in 1958 at IBM Research. Recent work as a member of the Research staff has been in physical information theory, statistics and operations research, and information retrieval. Joined CHQ staff in 1967 as manager of analytical studies in the Information Science Services Department. Member, Institute of Mathematical Statistics and Sigma Xi.

## Martin H. Dost

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Undergraduate studies in the Electrical Engineering Power Department, 1955, Technical University of Berlin; M.S. in Engineering Science, 1957, University of California, Berkeley. In 1957-58, worked for the University of California Institute of Engineering Research. Joined IBM in 1958 at the Development Laboratory in Poughkeepsie to work in a mechanical analysis group. Transferred to San Jose in 1960 for work on random access memory development, and is now concerned with machine technology and advanced circuit development for an information storage and retrieval system. Member, Simulation Councils, Inc.

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B.Sc. in Physics, 1956, National University of Ireland, Dublin; M.A., 1957, and Ph.D., 1959, both in Low Temperature Physics, University of Toronto. In 1959-61, attended University of California at Berkeley for post-doctoral studies in nuclear magnetic resonance. Worked at the IBM Research laboratory in San Jose from 1961 to 1967. Is presently a Research Physicist at Spectra Physics concentrating on nonlinear optics, and absorption and parametric processes. Member, American Physical Society, American Association of Physics Teachers, and American Association for the Advancement of Science.

## Edward B. Eichelberger

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B.S. in Electrical Engineering, 1956, Lehigh University; M.A. and Ph.D. in Electrical Engineering, 1963, Princeton University. Joined IBM in 1956 and worked in solid state circuit design at the development laboratory in Endicott. In 1959, he began graduate study at Princeton University under the IBM Resident Graduate Study Program. While at Princeton, he worked in the field of switching theory. Later, became manager of the Scientific Computation Laboratory in Endicott. Is now a member of the systems assurance department of the staff for the Data Processing Group of IBM divisions. Member, IEEE and ACM.

## Sakti P. Ghosh

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B.Sc., 1955; M.Sc., 1957, Calcutta University; Ph.D., 1962, University of California, Berkeley, all in statistics. Has been a statistician in charge of methods and design for the government of West Bengal, India; Research and Teaching Assistant at the University of California, Berkeley; and an Assistant Professor at New York University. Joined IBM in 1962 at the Research Center and is presently in the Mathematical Science Department working with the theory and methods of file organization in information retrieval. Won the Bird Scholarship in 1955, and the University Silver Medal in 1957. Member, American Statistical Association, Institute of Mathematical Statistics, AAAS, RESA; Life Member, Calcutta Statistical Association.

## Lawrence V. Gregor

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B.S., 1954; M.S., 1959, both in Chemistry at the Pennsylvania State University; Ph.D. in Chemistry, 1961, University of California at Berkeley. After service in the United States Navy from 1954-56 and work concurrent with graduate study at the Lawrence Radiation Laboratory, University of California, joined IBM in 1961 at the Thomas J. Watson Research Center. Engaged there in the investigation of polymer dielectric films, thermal oxidation of silicon, and behavior of metal-oxide-silicon systems. Is presently manager of a semiconductor surface physics group at the laboratory in East Fishkill. Member, AAAS, American Chemical Society, and Sigma Xi.

## Warner L. Peticolas

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B.S. in Chemical Engineering, 1950, Texas Technological College, Lubbock; Ph.D. in Physical Chemistry, 1954, Northwestern University. In 1954-55 and 1957-60 worked for the DuPont Company; in 1955-56 worked for the Public Health Services in Bethesda, Maryland; from 1960-67, worked for IBM at San Jose Research, where he was manager of a chemical physics group; is now an IBM consultant at San Jose Research and a professor in the Physics Department at the University of Oregon. Interested in modern spectroscopic techniques using lasers. Member, American Physical Society, American Chemical Society, Faraday Society, Sigma Xi, and Alpha Chi Sigma.

## William A. Pliskin

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B.S. in Physics, 1941, Kent State University; M.S. in Physics, 1943, Ohio University; Ph.D. in Physics, 1949, Ohio State University. Fellow at Ohio State University, 1948-49. Was a research physicist at Texaco Research Center, working on fundamental catalysis studies such as molecular surface structures determined by the infrared spectra of chemisorbed molecules. Joined IBM in 1959 at Poughkeepsie and has been engaged in structure and application studies of oxide and glass systems for surface passivation of silicon devices. Is presently Manager of Special Studies of Oxides and Insulators at the East Fishkill Laboratory. Member, Sigma Xi, Pi Mu Epsilon, Sigma Pi Sigma, American Physical Society, Electrochemical Society, and RESA; Senior Member, IEEE.

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B.A., 1959, Bell Haven College, Jackson, Mississippi; Ph.D., 1964, University of North Carolina, both in physics. Has worked at the U. S. Naval Ordnance Laboratory. In 1965 began work in IBM Endicott, where he is currently working in the field of holography as a member of the scientific computation laboratory. Member, American Physical Society, AAAS, and Sigma Xi.

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B.A., 1940; M.A., 1949, both in Mathematics; Ph.D. in Statistics, 1960, all from the University of North Carolina. Was Assistant Professor in the College of Commerce and Industry at the University of Wyoming, and from 1951-60 worked with Operations Analysis for the U. S. Air Force. Joined IBM in 1960 at the laboratory in Endicott to work on statistical methods for the reliability and serviceability group. Currently, he is a statistician in the engineering data processing area of the laboratory at Endicott; in this capacity he provides general mathematical and statistical consultation for the engineering, product testing, quality assurance, and reliability and serviceability groups.

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B.E.E., 1962; M.E.E., 1964; Ph.D. (Control Systems), 1965, Rensselaer Polytechnic Institute. As an undergraduate participated in co-operative work-study program with IBM; graduate study supported by NASA Fellowship. Joined the control systems department at San Jose Research in 1965 and is currently on assignment to the Nordic Laboratory in Sweden. Member, Tau Beta Phi, Eta Kappa Nu, Sigma Xi, and IEEE.

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B.S., 1961, College of the City of New York; M.S., 1964, Polytechnic Institute of Brooklyn, both in Physics. Joined IBM in 1962 at the Components Division Laboratory in Poughkeepsie, New York, to work in semiconductor device development. Was most recently engaged as a physicist at the laboratory in East Fishkill working in microelectronic technology and component analysis. Presently studying for the doctorate in Physics at New York University. Member, American Physical Society.