

NEW AND RECENT BOOKS IN COMPUTER SCIENCE

PARALLELISM IN HARDWARE AND SOFTWARE: REAL AND APPARENT CONCURRENCY

By Harold Lorin,
IBM Systems Research
Institute

PL/1 PROGRAMMING FOR ENGINEERING AND SCIENCE

By David Stoutemyer,
University of Hawaii

COMPUTER EVALUATION OF MATHEMATICAL FUNCTIONS

By C. T. Fike,
IBM Systems Research
Institute

SYSTEM STRUCTURE IN DATA, PROGRAMS, AND COMPUTERS

By Lyle R. Johnson,
IBM World Trade
Corporation

THE APPROXIMATE MINIMIZATION OF FUNCTIONALS

By James W. Daniel,
University of Wisconsin

An introduction to and survey of the phenomenon of parallel effect in computing systems. Discusses the motives for trying to achieve concurrent operations and the forms in which they appear. The reader is encouraged to follow design and the growth of design concepts. Non-mathematicians can use this text. July 1971, Approx. 512pp., 6"x9", \$15.00 (64863-4)

Uses a case study approach with an emphasis on programming techniques and applications for engineering and science. Includes the implementation details for the F, D, Model 20, and Student PL and SL1 compilers. The book presumes a knowledge of trigonometry and coordinate geometry, however, mathematically advanced applications are included. March 1971, Approx. 320pp., 6"x9", \$9.95 (67652-8)

Provides a comprehensive treatment of the most useful methods for evaluating mathematical functions using modern computers. Treats mathematics at a level appropriate to the broadest technical audience. Presents reference and instructional materials previously not available in one volume. Includes such topics as Chebyshev series, continued fractions, asymptotic series, and evaluation of polynomials. September 1969, 227pp., 6"x9", \$12.50 (16572-0)

Emphasizes the unities of concept in data structures, computer software, and computer hardware, and gives a functional overview of the entire data system. Step by step the reader is led through the basic facets of system structure and technology. Ideal for readers seeking a general understanding of computer science and professionals in the industry interested in self-study. September 1970, 303pp., 6"x9", \$12.50 (88033-6)

Gives an up-to-date survey of methods for minimizing functionals and applying these methods to numerical problems. Describes and analyzes large numbers of specific minimization methods. Both abstract modern mathematical analysis (functional analysis) and concrete explanations are given and can be used as either textual or reference material. January 1971, Approx. 224pp., 6"x9", \$9.50 (04387-7)

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Difficulties beyond our control have caused a delay in publishing the late 1970 and the early 1971 issues. It is expected that the journals will be issued on schedule before the end of 1971.

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