

other source which seems to give as easy access to the ideas involved in studies of fast and complex circuitry (such as [1], for example).

The author has included a chapter on computer organization and control and one programming. These are fairly superficial accounts suitable for project engineers but certainly not sufficiently complete to serve as serious expositions of these complicated subjects. Presumably these chapters were added to describe the general machine to the engineer working on its components. However, the subjects treated are not completely within the scope of Boolean algebra (as the author notes on p. 339) and hence not completely within the scope of this book.

In short, the author has prepared a well-directed set of notes for use as a practical handbook for anyone interested in the inside of an electronic computing instrument. The book contains no problems for solution by the reader, but otherwise it is entirely suitable for use as a textbook for a course covered by the material accorded attention.

The table of contents follows. Chapter 1. Symbolic Representation of Quantities, Chapter 2. Boolean Algebra Applied to Computer Components, Chapter 3. Switching Networks, Chapter 4. Binary Addition and Subtraction, Chapter 5. Binary Multiplication and Division, Chapter 6. Decimal Codes, Chapter 7. Counting, Binary and Decimal, Chapter 8. Decimal Addition and Subtraction, Chapter 9. Decimal Multiplication and Division, Chapter 10. Miscellaneous Operations, Chapter 11. Computer Organization and Control, Chapter 12. Programming, Bibliography, and Index.

C. B. T.

1. A. WEINBERGER & J. L. SMITH, "A One-Microsecond Adder Using One-Megacycle Circuitry," IRE Trans. on Electronic Computers, v. EC-5, 1956, p. 65-73. This article also appears under the title, "The Logical Design of a 1-Microsecond Parallel Adder using 1-Megacycle Circuitry," in Western Joint Computer Conference, *Proc.*, Feb. 7-9, 1956, San Francisco, California, sponsored by The Am. Inst. of Elec. Engineers, The Assn. for Computing Machinery, and the Inst. of Radio Engineers. Pub. by Am. Inst. of Elec. Engineers, New York, 1956, p. 103-108.

TABLE ERRATA

Reviews in this issue mention errata in the following works:

D. K. C. MACDONALD & LOIS T. TOWLE, "Integrals of interest in metallic conductivity," Review 37, p. 38-39.

MICHIO TAKASHIMA, "Tables for testing randomness by means of lengths of runs," Review 27, p. 33.

NOTES

Societa Italiana per il progresso delle scienze

The 46th congress of this Society met in Sicily, 15-21 September 1956. During the meeting the fiftieth anniversary of its foundation was celebrated. In the inaugural session, which was attended by Prime Minister Segni, Professor Mauro Picone paid an eloquent tribute to Vito Volterra, who was one of the original group which founded the SIPS. Professor Picone, who is the Director of the Istituto Nazionale del Applicazioni del Calcolo, organized the Mathematics Section of the Congress, the theme of which was the progress in mathematical analysis due to automation; the Secretary of the Mathematics Section was Dr.

D. Caligo. After an introductory address by Professor Picone, elucidating the theme, a series of talks were presented. The titles, or free translations of them, follow.

L. Couffignal (Paris), Mathematical science and computational technique.

M. V. Wilkes (Cambridge), Automatic digital computers and scientific research.

J. Todd (Washington), Computational problems concerning the Hilbert matrix.

A. van Wijngaarden (Amsterdam), The numerical summation of Stowly convergent series.

B. De Finetti (Rome), Applications involving logic and combinatorial analysis.

C. Böhm (Rome), On the automatic evaluation of the precision of computation.

F. H. Raymond (Courbevoie), Evolution of the concept of the structure of a digital universal computer.

L. Dadda (Milan), The Computation Laboratory of the Milan Technical University.

A. Ostrowski (Basel), On the solution of equations using Taylor's series.

O. Taussky (Washington), Computational problems involving matrices with integral elements.

M. J. de Schwarz (Rome), Automatic solution of a transcendental equation.

E. L. Aparo (Rome), On matrix equations.

J. Kuntzmann (Grenoble), Research on error evaluation of differential problems.

E. Biondi (Milan), Experiments on the numerical solution of various types of partial differential equations.

D. Caligo and D. Dainelli (Rome), Experiments on the numerical solution of ordinary differential equations on FINAC.

C. Strachey (London), Some matrix problems arising from the consideration of flutter in aircraft.

In addition to the above papers on numerical analysis, there was another, G. Grioli (Padua), Statics of continuous media, and a special address by G. Fichera, who has succeeded Professor Picone in the Chair of Mathematics at the University of Rome, on "Progress in some fields of mathematical analysis in the half-century 1906-1956."

The papers will be published in full in a special volume, so no account of them is necessary. The introductory remarks of the talk of Professor Kuntzmann are, however, well worth recalling. He noted that during recent years many powerful computational methods have appeared and that it is now appropriate that genuine mathematical effort should be applied to them, so as to determine the basic ideas and to enunciate and establish theorems.

Numerical analysts should find themselves quite at home scientifically in Italy. Professor Picone's influence predominates and he firmly believes in the union of the best in mathematics with the best available equipment: at present a Ferranti machine FINAC is at the Istituto in Rome. The productivity of his organization on the theoretical side has been phenomenal, and undoubtedly the acquisition of the new tool will result in distinguished contributions to true numerical analysis. There is another center of automatic computation in Milan.

JOHN TODD