

dérivées partielles) describes an analogue system with relays which approximates a distributed system by a lumped system. J. Girerd (L'analyseur différentiel à réseaux DELTA 600, son application à la résolution des équations aux dérivées partielles) discusses his company's resistance network differential analyzer. A. Gadola, V. Gervasio, and C. Zaffiro (The use of standard analogue techniques in solving propagation problems) outlines two methods for handling a distributed system; first, by finite-difference approximation, and second, by expanding in a Fourier series with odd terms only, and then using analogue simulation on each mode.

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**32[Z].**—R. W. WILLIAMS, *Analogue Computation*, Academic Press, Inc., New York, 1962, 271 p., 21.5 cm. Price \$9.50.

The scope of Dr. Williams' book is confined to the electronic and electromechanical techniques and components of analog computers instead of complete computers and their applications.

The book, written as an introduction to the subject, consists of nine chapters. Chapter 1 gives a brief account of historical points of interest in analog computers. Chapter 2 covers one of the important components, the potentiometer; the treatment is quite extensive. Chapter 3 deals with operational amplifiers. It presents both functional and design aspects, as well as automatic drift-correction. Chapter 4 is an interesting and unique chapter on a.c. analog technique. The subject of servomechanisms is treated in Chapter 5 for both position and rate servos. The treatment is concise and includes three a.c. components: tachometers, motors, and amplifiers. Chapter 6 covers another phase of a.c. analog technique: trigonometric functions and triangle solving, as well as the resolver component. Function generators and multipliers are presented, respectively, in Chapters 7 and 8. These include the function generator using non-ohmic resistor, the Hall multiplier, and the time division multiplier. The last chapter, on transistor application, mainly discusses d.c. transistor amplifiers and the problems of transistorizing operational amplifiers.

The reviewer has found that the book introduces much information available in British literature. This valuable book for students and designers interested in analog technique is quite readable and is illustrated with many figures.

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