derived for the spectral density function of the y_t process in terms of the spectra density function of the wide-sense stationary stochastic process u_t.

This short monograph is an informative and attractively written elementary account of a useful subject, though it might have been improved by a wider range of coverage. However, references to a wide selection of texts and papers are given which provide the interested reader with the opportunity to read further at a more advanced level in special topics in linear difference equations such as Sturm-Liouville theory or boundary problems and expansion theorems in the regular or singular case which have not been dealt with in this introductory volume.

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Opera Matematica. BY ALEXANDRU GHIKA. Editura Academici R.S.R., Bucarest (1968). 955 pp.

L'œuvre mathématique d'Alexandre Ghika, ex professeur à l'Université de Bucarest est assez vaste; les 1,000 pages de ce volume en sont témoin.

Des résultats profonds dans la théorie des fonctions analytiques marquent le début de sa carrière et sa thèse à Paris (1929). Il s'occupe aussi d'autres problèmes dans l'analyse, souvent comme application des méthodes de l'Analyse Complexe. Notamment, des équations différentielles d'ordre infini, équations intégrales, équations aux dérivées partielles et en différences finies.

Dans la dernière partie de sa vie, Ghika s'intéresse et travaille dans différentes directions de l'Analyse Fonctionnelle. Son influence et son esprit ont fait école, et beaucoup de mathématiciens roumains plus jeunes travaillent aujourd'hui dans cette direction.

En publiant ce volume, l'Académie Roumaine a fait un hommage reconnaissant à la mémoire d'un de ses plus brillants membres.

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Matrices and Linear Algebra. BY H. SCHNEIDER and G. P. BARKER. Holt, New York (1968). ix+385 pp.

The authors have written this text for sophomore, and perhaps freshman, students in physics, engineering, economics, and other fields outside mathematics.

Matrices are introduced in Chapter 1 as devices which convey all the necessary information on systems of linear equations. Their algebra is then developed. The second chapter is devoted to a treatment of linear equations. Chapter 3 deals with vector spaces. A formal definition of a vector space is given at the outset, affording the authors an opportunity to show how versatile vectors are. The usual topics: subspaces, linear independence, bases, row spaces, rank and canonical forms are developed, but with lots of examples of column vectors to keep the students' feet on the ground. In Chapter 4, determinants are introduced axiomatically, but quickly developed as signed sums of products. Chapters 5 and 6 treat linear transformations, and eigenvalues and eigenvectors, respectively. The authors switch back and forth easily between the matrix and the linear transformation points of view, using whichever approach seems more appropriate at any given time. The Jordan canonical form is given but not proved. There are a few pages on Markov Chains. Chapter 7, entitled Inner Product Spaces, includes the Gram-Schmidt orthonormalization process, unitary equivalence, and Hermitian, unitary and normal matrices. Applications to differential equations are given in Chapter 8.

While this book is aimed at students not primarily interested in mathematics, it would appear to be equally suitable for mathematics students.

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Linear Algebra. By Robert R. Stoll and Edward T. Wong. Academic Press, New York and London (1968). x+326 pp. U.S. $8.50.

This book is a welcome addition to the literature on linear algebra. The book is divided into nine chapters and an appendix which is devoted to notion of elementary set theory. The first eight chapters cover all the important topics, which usually constitute an introductory course on linear algebra. In Chapter 2, there is a brief excursion into the discussion of manifolds. The introduction of each concept is well motivated and the theorems are clearly stated and rigorously proved, using the basis-free methods as far as possible. Each section is followed by a number of solved examples, which illustrate the theorems. An excellent feature of the book is the discussion of calculation methods, and a large number of worked-out examples of computational nature, which, quoting the authors, enables the students not only to cope with the theoretical problems, but also help the students to grapple with "dirty" computational problems as well. There are over 300 well graded exercises, with hints to more difficult ones. The ninth chapter deals with a good but brief application of linear algebra to other fields. There are no formal

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