In Chapter II properties such as regularity tightness and perfectness of measures are defined and studied. Connections between measures and linear functionals and the weak convergence of measures are studied. Prohorov's theorems on compactness and metrizability of a set of measures are proved. Existence of nonatomic measures in separable metric spaces is investigated. The interesting theorem of the author, Ranga Rao, and Varadarajan which asserts that any uncountable complete separable metric X space admits a nonatomic measure is proved. Its proof is beautiful.

In Chapters III and IV probability distributions in topological groups are studied in detail. A beautiful elementary proof due to the author, of the fact that any idempotent measure on a separable complete metric group is necessarily the Haar measure on a compact subgroup, is given. Representations of infinitely divisible measures in locally compact abelian groups and the connected limit theorems are brought.

Most of the results of these chapters are taken from the fundamental paper of the author, Ranga Rao, and V. S. Varadarajan, *Probability distributions on locally compact abelian groups*, Ill. J. Math **7** (1963), 337–369. The reader will, though, have to fill out quite a few details for himself in these chapters.

Chapter V entitled the Kolmogorov Consistency Theorem and Conditional Probability contains the proofs of the by now classical extension theorems and the existence of conditional and regular conditional probability in standard Borel spaces.

Chapters VI and VII deal with probability measures in a Hilbert space, in $C[0, 1]$ and in $D[0, 1]$ (functions possessing right and left limits at every point in $[0, 1]$. Limit theorems in Hilbert space, weakly compact sets of measures on Hilbert spaces (Prohorov theorems), Varadan's results on the Levy Khinchine representation of infinitely divisible laws, etc., are proved.

Probability measures on $C[01]$ and $D[01]$ are studied. The Skorohod topology in $D[01]$ and its properties are proved. Compactness criteria for sets of probability measures and some applications to testing statistical hypotheses are given.

The book is self-contained and elegantly written. It is recommended reading for any graduate student or worker in the field of probability.

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Modern Factor Analysis. By Harry H. Harman. (2nd ed., revised.) The University of Chicago Press, Chicago and London (1967). xx+474 pp.

The material is presented in five parts. Part 1 introduces factor analysis model, matrix and geometric concepts essential to Factor Analysis, problem of communality and different types of factor solutions. Part 2 gives direct solutions such as, principal-factor and related solutions, Minres solution, maximum likelihood solution, and multiple-group solution. Part 3 presents the derived solutions such as different solutions in common-factor space, oblique multiple-factor solution: orthogonal and oblique cases. Part 4 deals with factor measurements and Part 5 gives problems and exercises.

In this revised edition a chapter on Mires method and a section on the Direct Oblimin Method of transformation to oblique factors are added, a more consistent matrix notation is used and the bibliography is updated.

A basic knowledge of Linear Algebra is essential in understanding the material presented in this book. The basic materials are presented in a nutshell in the early chapters just to assist the reader to recall some results which are used later. The book is easily readable even for a beginner but too much explanation in popular language often makes a reader forget the topic when he finishes reading it. Chapter 6 is typical in this respect. The different methods discussed in the book are illustrated by interesting examples from different fields especially from Psychology. These include such examples as Burt's papers on the eight emotional traits and Gonsnell's discussion of eight political variables, and so on. For a mathematician it may be amusing to read about the factor analysis of emotional traits in one of these examples. "Since wonder and anger are indicative of an egocentric personality and tenderness is indicative of timidity, the factor characterizing these two opposing emotions may be called 'Egocentricity' (E). If it is desired to change the signs of all the coefficients, then the factor may be called 'Timidity'. In Burt's discussion fear and sorrow are classed with tenderness and in the present analysis each of these traits has a coefficient of -0.14. These values have some statistical significance and help substantiate the interpretation of the second factor."

"Primarily the work is an exposition and not a formal mathematical development." A mathematician may appreciate the book better if it is condensed to one-fifth of the present size. In the reviewer's opinion the book serves the purpose for which it is written, namely, "to serve as a reference treatise on factor analysis in the current stage of advancement of the subject."

A. M. Mathai,
McGill University

Generalized Integral Transformations. By A. H. Zemanian. Wiley, New York (1968). xvi+300 pp.

This book is a treatment of the theory of integral transformations of distributions, a theory to which the author and his students have made large contributions. The book includes a brief but thorough treatment of distribution theory. Chapter titles are: 1. Countably multinormed spaces, countable union spaces, and their

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