The Annals of Mathematical Statistics
1971, Vol. 42, No. 3, 1138–1141

BOOK REVIEWS

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DAVID, H. A. *Order Statistics*. Wiley, New York, 1970. xi+272 pp.

Review by I. RICHARD SAVAGE
Center for Advanced Study in the Behavioral Sciences

A lively presentation is given of properties of order statistics, such as exact sampling theory, methods for computing moments, and bounding of distributions. Estimates, tests, and methods for handling outliers based on order statistics are also presented in detail.

About 1500 references are made to the bibliography of over 700 items and half the items appeared after 1962, the publication date for Sarhan and Greenberg *Contributions to Order Statistics*, Wiley, New York. These references are used in a variety of ways. David has prepared a very large collection of problems which usually refer the reader to the original paper. He also presents many concise summaries of very specialized subjects. In particular, an appendix summarizes the sources of tables to facilitate work with order statistics. The text is tightly written but most conclusions and mathematical techniques are supported by citations of the research literature.

David wishes his book to have the "features of a textbook and of a guide through the research literature." The mathematics is at the level of advanced calculus and some work in mathematical statistics. At this level a great wealth of techniques are utilized. Working through text and problems with frequent trips to the library would give the student courage to solve hard problems on the job or in future research. Even if a course in order statistics was not required, this book would be useful in a problem course.

I am sure that users of order statistics will find this a very useful guide. Of course, much research is being done. Perhaps future guides will include new areas, such as, Bayesian statistics, decision theory and large sample theory (which David did not consider in detail).

David deserves thanks from the profession, but he does not need it since clearly the book was a labor of love.

KENDALL, M. G. and STUART, A. *The Advanced Theory of Statistics*, **3**, 2nd ed. Hafner Publishing Company, New York, 1968. x+557.

Review by G. S. WATSON
Princeton University

The first edition of the concluding volume (III) of Kendall and Stuart's epic work was not reviewed in the journal. The appearance of the second edition provides an opportunity to do so and to make a few comments on their achievement, now that they have said their "final words with a considerable sense of relief." Those ghoulish readers who expect a repeat of Kiefer's penetrating review of Volume II will be disappointed—I have neither the skill nor the stomach. I find it very useful to possess and use all three volumes, though Volume I is the most dog-eared. If read with care, they are great books.

The topics covered in Volume III are Analysis of Variance (chapters 35–37), Design of Experiments (chapter 38), Sample Survey Theory (chapters 39, 40), Multivariate Analysis (chapters 41–44) and Time Series Analysis (chapters 45–50). These, unlike the contents of Volumes I and II, are each covered separately by many books at many levels and usually at much greater length.

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