Temme follow through on their intention to provide additional volumes in the series.

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1. M. ABRAMOWITZ & I. A. STEGUN (Editors), *Handbook of Mathematical Functions with Formulas, Graphs and Mathematical Tables*, Nat. Bur. Standards Appl. Math. Series, 55, U. S. Government Printing Office, Washington, D. C., 1964.

2. Y. L. LUKE, *The Special Functions and Their Approximations*. Vols. I and II, Academic Press, New York, 1969.

3. Y. L. LUKE, *Mathematical Functions and Their Approximations*, Academic Press, New York, 1975.

45[62Q05].—W. J. KENNEDY, R. E. ODEH & J. M. DAVENPORT (Editors), *Selected Tables in Mathematical Statistics*, Vol. VIII, Amer. Math. Soc., Providence, R.I., 1985, ix + 270 pp., 26 cm. Price $30.00.

This book is a collection of three sets of tables, each accompanied by a paper which presents the statistical problem being studied, summarizes the theory underlying the problem, discusses how the tables were calculated, explains how to use the tables, and provides several examples of their use. The first two sets of tables are of use in the design of experiments. The third set has applications to the construction of estimators and goodness of fit tests when the underlying distribution belongs to a family having structure similar to Student's t. Presumably, these tables have been constructed so as to make the associated statistical methodology more accessible to practitioners. In what follows I shall therefore try to describe situations for which the tables might be useful and comment on the readability of each paper.

The first set of tables by Benon J. Trawinski can be used to design and analyze balanced paired comparison experiments when the goal of the experimenter is to select from a set of T treatments a subset of size S containing the best. Balanced paired comparison experiments involve comparing all possible pairs of treatments equally often, specifying a preference each time. Such experiments arise, for example, in the food industry where food samples are to be compared for taste or visual preference, or in rehabilitation where treatments for the improvement of patient performance are to be compared.

The tables enable an experimenter to determine the number of replications of a balanced paired comparison experiment necessary to guarantee that the subset of size S selected contains the best treatment with probability no less than some prespecified value. They can be used to determine the rule for selecting the subset as well as the expected size of the subset. These tables would seem to be of particular value to researchers who conduct paired comparison experiments on a regular basis.

I found the explanatory material accompanying the tables a bit difficult to read. The examples in Sections 3 and 5 can be used to determine how to use the tables, but these examples are not as clear as they could be. This is especially true of the examples discussing how to carry out interpolations between values in the tables. In fact, Examples 5.1–5.4 refer to illustrations which have been omitted from the book. This lack of clarity means that potential users of these tables will have to do some extra work in order to correctly use the tables.

The second set of tables by Robert E. Bechhofer and Ajit C. Tamhane can be used to design experiments for comparing p test treatments with a control when the experiment is to be run in small (size 2 or 3) blocks. A matched pairs design would be an example of such an experiment with block size 2. The tables provide lists of so-called balanced treatment incomplete block designs for values of p up to 6 and block sizes 2 and 3. These designs are appropriate when the goal of the experimenter is to calculate simultaneous one- or two-sided confidence intervals for the p contrasts of test treatments with the control. One set of tables presents designs which are optimal in the sense of requiring the fewest number of blocks to achieve a prespecified confidence coefficient. Since it is possible that in certain situations an optimal design cannot be used (for example, a block in the optimal design contains a treatment combination which is unfeasible to employ), another set of tables is provided which lists so-called admissible (good) designs.

I found the explanatory material accompanying these tables to be well organized and fairly easy to read, although this may be partly due to my familiarity with this material. The examples are clear, and explanations of how to use the tables are easy to follow. Formulas for analyzing the data resulting from a balanced treatment incomplete block design are also provided. Any experimenter who has some familiarity with standard analysis of variance should have little difficulty employing these tables.

The final set of tables by Mofi Lai Tiku and S. Kumra present the expected values and covariances of order statistics of random samples from a family of symmetric distributions which contains Student's t. In fact, these distributions are reducible to Student's t by means of a linear transformation of the variable.

If one has reason to believe that the underlying distribution in a statistical problem belongs to this family, the tabulated means and covariances can be used to construct best linear unbiased estimators of the mean and variance of the distribution, goodness of fit tests, and robust estimators of the mean. The authors give examples of each of these applications. The examples are easy to follow and the use of the tables is presented clearly. I would, however, like to have seen some additional examples of situations for which these tables might be helpful.

As is the case with most sets of tables, this book will probably appeal to a fairly narrow audience. Experimenters who regularly conduct pairwise comparison experiments, who are involved in making treatment vs. a control comparison in block design settings, or who wish to do statistical inference when the underlying distribution is something like Student's t, should find this book helpful and may wish to have a copy on their shelf.

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