

which are needed for an exposition of Hunt's approach to potential theory. The book ends with a chapter devoted to Choquet's representation theorem and some applications. Thus, as can be seen from the table of contents, one of the author's main purposes is to give an account of those methods of probability theory which could prove to be of great service to analysts. The reviewer feels that the author should have included for these analysts a section on the potential theory of the Brownian motion process, as this would have illustrated in a concrete and nontrivial way many of the abstract concepts he has defined. For the specialist in this field, on the other hand, this well written book, with its careful and complete discussion of new and important results, some of them due to the author himself, is highly recommended.

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31[K, X].—ARISTARKH KONSTANTINOVICH MITROPOL'SKIĬ, *Correlation Equations for Statistical Computations*, Authorized translation from the Russian by Edwin S. Spiegelthal, Consultants Bureau Enterprises, Inc., New York, 1966, viii + 103 pp., 28 cm. Price \$9.50.

In this book, the author describes various methods for performing calculations associated with correlational analysis. Most of these methods have little value when the calculations are performed on an automatic computer. Matrix notation is not used, and the notation of the author is quite awkward.

One can only be more overwhelmed by the price of this book than by the fact that it was translated at all.

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32[K, X].—E. S. PEARSON & H. O. HARTLEY, Editors, *Biometrika Tables for Statisticians*, Vol. I, Third Edition, Cambridge University Press, New York, 1966, xvi + 264 pp., 29 cm. Price \$6.50.

This new edition of a standard source of statistical tables is welcomed. The review by Milton Abramowitz (this journal, Volume 9, (1955), 205-211) remains a valid assessment. We now add details to his review to reflect the changes of the new editions.

For both the second and third editions the basic changes were made in the tables, although corresponding changes have been made in the Introduction. In these editions there is an Index of the tables. The following is a list of the changed or new tables. Tables with a number followed by a lower case letter are new in the third edition.

- 8 Percentage points of the χ^2 -distribution.
Removal of cut-off errors in the last figure tabled.
- 11 Test for comparisons involving two variances which must be separately estimated.
Addition of 2.5 % and 0.5 % critical levels.

- 16 Percentage points of the B -distribution.
Removal of cut-off errors in the last figure tabled. Addition of 0.25 % and 0.1 % points.
- 20 Moment constants of the mean deviation and of the range.
Removal of cut-off errors in the last figure tabled.
- 22 Percentage points of the distribution of the range.
Removal of cut-off errors in the last figure tabled.
- 23 Probability integral of the range, W , in normal samples of size n .
Removal of cut-off errors in the last figure tabled.
- 26 Percentage points of the extreme studentized deviate from sample mean, $(x_n - \bar{x})/s_\nu$ or $(\bar{x} - x_1)/s_\nu$.
In the second edition this table was extended to $n = 12$ and errors were corrected. Formerly lower percentage points were given in this table but now page 50 gives these values for $\nu = 10$ and suggested methods of interpolation. The range of the table is $n = 3(1)10, 12$; $\nu = 10(1)20, 24, 30, 40, 60, 120, \infty$ for the 10 %, 2.5 %, 0.5 % and 0.1 % points and $\nu = 5(1)20, 24, 30, 40, 60, 120, \infty$ for the 5 % and 1 % points. 3D for all except the 0.1 % points which are 2D.
- 26a Percentage points of $(x_n - \bar{x})/S$ or $(\bar{x} - x_1)/S$ (where $S^2 = \sum_{i=1}^n (x_i - \bar{x})^2 + \nu s_\nu^2$).
Note: $S^2 = \sum_1^n (x_i - \bar{x})^2 + \sum_1^{\nu+1} (y_i - \bar{y})^2$, with y_i independent of x_i .
The range of the table is $n = 3(1)10, 12, 15, 20$; $\nu = 0(1)10, 12, 15, 20, 24, 30, 40, 50$ and the 5 % and 1 % points. The 5 % points are 3D (except $n = 3, \nu = 0$ is 4D) and the 1 % points are 4D.
- 26b Percentage points of $\max |x_i - \bar{x}|/S$ (where $S^2 = \sum_{i=1}^n (x_i - \bar{x})^2 + \nu s_\nu^2$)
Note: $S^2 = \sum_1^n (x_i - \bar{x})^2 + \sum_1^{\nu+1} (y_i - \bar{y})^2$, with y_i independent of x_i .
The range is as in 26a; all values are 3D except those for $n = 3, \nu = 0$ are 4D.
- 29 Percentage points of the studentized range, $q = (x_n - x_1)/s_\nu$.
The lower percent points are no longer included. The 10 % points have been included and the accuracy of the 5 % and 1 % points has been improved. All values are either 2D or 4S.
- 29a Two-sample analogue of Student's test. Values of $u = |\bar{x}_1 - \bar{x}_2|/(w_1 + w_2)$ exceeded with probability α .
Note: \bar{x}_1, \bar{x}_2 are the means and w_1, w_2 the ranges in two independent samples containing n_1, n_2 observations, respectively.
The range of the table is $n_1 = 2(1)20, n_2 = n_1(1)20$ for 10 %, 5 %, 2 % and 1 % points. 3D accuracy.
- 29b Upper percentage points of the ratio of two independent ranges, $F' = w_1/w_2$.
Note: w_1, w_2 are the ranges in two independent samples containing n_1, n_2 observations, respectively.
The range of the table is n_1 and $n_2 = 2(1)15$ for 50 %, 25 %, 10 %, 5 %, 2.5 %, 1 %, 0.5 % and 0.1 % points. 4S throughout.

29c Percentage points of the ratio of range to standard deviation, w/s , where w and s are derived from the same sample of n observations.

The range of the table is $n = 3(1)20(5)100(50)200, 500, 1000$ for upper and lower 0.0%, 0.5%, 1.0%, 2.5%, 5.0% and 10.0% points. At least 3S.

31a Percentage points of the ratio $s_{\max}^2 / \sum_{i=1}^k s_i^2$.

Note: s_{\max}^2 is the largest in a set of k independent mean squares, s_i^2 , each based on ν degrees of freedom.

The range of the table is $k = 2(1)10, 12, 15, 20$; $\nu = 1(1)10, 16, 36, 144, \infty$ for the 5% and 1% points. Values to 4D.

31b Percentage points of the ratio $w_{\max} / \sum_{i=1}^k w_i$. Upper 5% points.

Note: w_{\max} is the largest in a set of k independent ranges, w_i , each derived from a sample of n observations.

The range of the table is $k = 2(1)10, 12, 15, 20$; $n = 2(1)10$ and the accuracy is 3D.

34c Tests for departure from normality. Percentage points of the distribution of $b_2 = m_4/m_2^2$.

The values of $n = 50(25) 150(50) 700(100) 1000(200) 2000(500) 5000$.

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33[L].—HENRY E. FETTIS & JAMES C. CASLIN, *Ten Place Tables of the Jacobian Elliptic Functions II. Theta Functions and Conversion Factors*, Report ARL 66-0069, Aerospace Research Laboratories, Office of Aerospace Research, United States Air Force, Wright-Patterson Air Force Base, Ohio, April 1966, iv + 109 pp., 28 cm. Copies obtainable upon request from the Defense Documentation Center, Cameron Station, Alexandria, Virginia.

This report concludes a compilation in two parts of new tables by the authors relating to the Jacobian elliptic functions. In this second part we find a 10D table, without differences, of the ratio $\Theta(u, k)/\Theta(0, k)$, in the original notation of Jacobi, for $k^2 = 0.01(0.01)1$ and $u = 0(0.01)N$, where N ranges from 1.60 to 4.00 with increasing values of k^2 in a manner too complicated for simple description. This table was calculated on an IBM 1620 system by use of Gauss's transformation, as described in the introduction. A supplementary two-page table gives 10D conversion factors (involving the theta functions of zero) that permit the calculation of the remaining three theta functions (expressed in Jacobi's earlier notation) from the present tabular data in conjunction with the values of the Jacobi elliptic functions tabulated in the first report [1]. The basic formulas are given for such calculations.

The abbreviated introduction to the present tables contains no discussion of the problem of interpolation therein nor of the precautions, if any, that were taken to insure accuracy in the printed data.

In the introductory text this reviewer detected five typographical errors in addition to three noted by the authors on an insert sheet. Furthermore, the exponent