

All entries are given to three decimal places except 2(2)200, .000001 and .999999 which are to two.

Special features of the present table are coverage of even values of  $\nu$  from 102 to 200 as well as values of  $P$  and  $1 - P$  equal to .0001 and .000001.

It is noted that the Greenwood and Hartley *Guide to Tables in Mathematical Statistics* in its list of tables of percentage points of  $\chi^2$ , p. 140-143, makes no mention of the fact that Campbell's Table II may be used to obtain percentage points of the  $\chi^2$ , taking  $2c$  in Campbell as  $\nu$  and  $2a$  in Campbell as  $\chi^2$ . This was done in obtaining certain entries of the present table. The Greenwood and Hartley *Guide* does, however, list Campbell on p. 151 under "Percentage points of the Poisson distribution; confidence intervals for  $m$ ."

Many entries in the present table were obtained by interpolation in Thompson's Table, using the four-point Lagrangian formula, Eq. (7) in [2].

In the middle of the distribution the interpolates agree through the third decimal with Campbell's values. In the tails of the distribution agreement is somewhat poorer, a difference of 1 or 2 units in the third decimal being usual.

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1. R. A. FISHER, *Statistical Methods for Research Workers*, 11th Ed., Table III, Oliver and Boyd, Edinburgh, 1950.
2. CATHERINE M. THOMPSON, "Table of the percentage points of the  $\chi^2$ -distribution," *Biometrika*, v. 32, Part II, October, 1941.
3. GEORGE A. CAMPBELL, "Probability curves showing Poisson's exponential summation," *Bell System Tech. J.*, January, 1923.
4. J. ARTHUR GREENWOOD & H. O. HARTLEY, *Guide to Tables in Mathematical Statistics*, Princeton Univ., 1962.

10[L].—A. R. CURTIS, *Tables of Jacobian Elliptic Functions whose Arguments are Rational Fractions of the Quarter Period*, National Physical Laboratory, *Mathematical Tables*, Vol. 7, Her Majesty's Stationery Office, London, 1964, iii + 81 p., 28 cm. Paperback. Price 15 shillings (\$3.00).

Table 1 (p. 8-78) has one page for each of the 71 arguments  $q = 0(0.005)0.35$ , where  $q = \exp(-\pi K'/K)$  is Jacobi's nome, and  $K, K'$  are the usual quarter periods. Each page gives, entirely to 20 D, values of  $k, K, \operatorname{sn}(mK/n), \operatorname{cn}(mK/n), \operatorname{dn}(mK/n)$ , where  $k$  is the modulus and the values of  $m/n$  form the Farey series  $\mathcal{F}_{15}$ , i.e.,  $m$  and  $n$  take all positive integral values for which  $m < n \leq 15$  and  $m/n$  is in its lowest terms, while the various  $m/n$  are arranged in ascending order of magnitude. This Farey series of arguments also, as it happens, has 71 members.

Table 2 (p. 80-81) gives, again for  $q = 0(0.005)0.35$  and entirely to 20 D, the values of  $k, k',$  the modular angle  $\theta = \sin^{-1}k$  in radians,  $K, K'$  and the period-ratio  $K'/K$ .

The tables were prepared to facilitate filter design computations, as well-known tables by the Spenceleys, which proceed by ninetieths of  $K$ , did not contain all the desired  $m/n$  arguments nor always give the desired number of decimal places. The argument  $q$  was used in order that the distribution of  $k$ -values should be dense

as  $k$  approaches unity (25 of the 71 values of  $k$  exceed 0.99), and no interpolation facilities are provided in either table because in the design problem  $k$  can usually be chosen to coincide with a tabular value. The methods of computation on DEUCE are described in the introductory text.

A. F.

- 11[L].—CHIH-BING LING, *Tables of Values of  $\sigma_{2s}$  Relating to Weierstrass' Elliptic Function*, Institute of Mathematics, Academia Sinica, Taiwan, China, 1964. Ms. of 7 typewritten sheets deposited in UMT File.

These manuscript tables of coefficients  $\sigma_{2s}$  to 16 S, for  $s = 2(1)25$ , which appear in the expansion of Weierstrassian elliptic functions when  $\omega = ai$  and when  $\omega = \frac{1}{2} + ci$ , are described in a paper of the same title by Professor Ling in this issue, where an abridgment to  $s \leq 10$  appears.

J. W. W.

- 12[L].—T. Y. NA & A. G. HANSEN, *Tabulation of the Hermite Function with Imaginary Arguments,  $H_n(ix)$* , ms. of 2 typewritten pages + 4 computer sheets of tables, deposited in the UMT File.

In a recent similarity analysis of the flow near an oscillating plate, the authors required numerical values of the Hermite function with an imaginary argument. Herein they present tables of  $i^{-1}H_m(ix)$ ,  $m = 1(2)15$ , and of  $H_m(ix)$ ,  $m = 2(2)16$ , both for  $x = 0(0.1)5$ , to 8 S in floating-point form, as calculated on the IBM 7090 system at the University of Michigan. Previous tabulations of this function have been limited to real arguments.

J. W. W.

- 13[L].—ROBERT SPIRA, *Calculation of the Riemann Zeta Function*, Memo 64-1-3,16, Special Research in Numerical Analysis, Duke University, Durham, North Carolina, 16 March 1964, 12 microcards (24 sides) deposited in UMT File.

This is a reproduction on microcards of the main table of 940 pages of values of the Riemann zeta function (together with thirteen introductory tables) described previously in this journal. (See v. 18, 1964, p. 519, UMT 78.)

The author has informed the editors that a limited number of copies of these cards are available upon request to Duke University.

J. W. W.

- 14[L, M].—ATHENA HARVEY, *Tables of  $\int_0^x e^{-bt} I_0(t)$* , four typewritten pages deposited in UMT File.

In a brief explanatory introduction the author states that this integral appears in the analytical expression of the integrated reflecting power of X-rays for absorbing perfect crystals [1].

The tabular data were computed on an IBM 1620 and are listed to 6 S for  $b = 0(0.1)1.0$  and  $x = 0(0.1)10.0$ . Accuracy to within 2 units in the last place is claimed.