

## TABLE ERRATA

561.—EDWARD BATSCHELET, *Statistical Methods for the Analysis of Problems in Animal Orientation and Certain Biological Rhythms*, American Institute of Biological Sciences Monograph, Washington, D.C., 1965.

Recalculation to 8S of Table B on page 44 of  $\kappa(\rho)$ , where  $\rho(\kappa) = I_1(\kappa)/I_0(\kappa)$ , has revealed that the following six corrections are required in Batschelet's extension of the original tabulation to  $\rho = 0.87$  in [1]:

$\rho$	<i>for</i>	<i>read</i>	$\rho$	<i>for</i>	<i>read</i>
0.94	8.6104	8.6103	0.97	16.9266	16.9289
0.95	10.2716	10.2717	0.98	25.2522	25.2579
0.96	12.7661	12.7668	0.99	50.2421	50.2538

These corrections should also be made in the reproduction of this table as Appendix 2.3 on page 298 of [2].

For confirmation of these corrections or in lieu of interpolation in the interval (0.94, 1], the following continued-fraction approximation in terms of  $y = 2/(1 - \rho)$  is correct to 6D:

$$\kappa(\rho) \approx \frac{1}{4}(y + 1 + 3/(y - 5 - 12/(y - 10 - 32/(y - 11.5 - 240/y))))).$$

G. W. HILL

Division of Mineral Chemistry  
C.S.I.R.O.  
P. O. Box 124  
Port Melbourne, Australia 3207

1. G. J. GUMBEL, J. A. GREENWOOD & D. DURAND, "The circular normal distribution: theory and tables," *J. Amer. Statist. Assoc.*, v. 48, 1953, pp. 131-152. (In particular, see Table 2, p. 140.)
2. K. V. MARDIA, *Statistics of Directional Data*, Academic Press, London and New York, 1972.

562.—K. V. MARDIA, *Statistics of Directional Data*, Academic Press, London and New York, 1972.

Recalculation to 9S of the table in Appendix 2.2 on page 297 of  $\rho(\kappa) = I_1(\kappa)/I_0(\kappa)$  has revealed three errors in Mardia's extension beyond  $\kappa = 10$  of Table C in [1]. The value of  $\rho(12)$  should read 0.95738 instead of 0.95730;  $\rho(24)$  should read 0.97894 instead of 0.97937; and  $\rho(40)$  should read 0.98742 instead of 0.98739.

For confirmation of these corrections or in place of interpolation for large values of the argument, the following asymptotic continued fraction may be used:

$$\rho(\kappa) = 1 - 2/(4\kappa - 1 - 1/(4\kappa/3 - 2 - 1/(4\kappa/5 - 2 - \dots))).$$

G. W. HILL

1. E. BATSCHELET, *Statistical Methods for the Analysis of Problems in Animal Orientation and Certain Biological Rhythms*, Amer. Inst. Biol. Sciences Monograph, Washington, D.C., 1965.

563.—MILTON ABRAMOWITZ & IRENE A. STEGUN, Editors, *Handbook of Mathematical Functions with Formulas, Graphs, and Mathematical Tables*, National Bureau of Standards, Appl. Math. Series, No. 55, U. S. Government Printing Office, Washington, D. C., 1964, and all known reprints.

On p. 440, Formula 10.1.46 is a Gegenbauer addition theorem for spherical Bessel functions [1]. A minus sign should be prefixed to this expansion of  $(\cos \lambda R)/\lambda R$ , and the condition for validity,  $|re^{\pm i\theta}| < |\rho|$ , should be added.

S. N. STUART

Division of Chemical Physics  
C.S.I.R.O.  
P. O. Box 160,  
Clayton, Victoria, Australia 3168

1. G. N. WATSON, *Treatise on the Theory of Bessel Functions*, 2nd ed., Cambridge Univ. Press, Cambridge; Macmillan, New York, 1944. (Section 11.41, Equations (3) and (10).)

564.—I. S. GRADSHTEYN & I. M. RYZHIK, *Table of Integrals, Series, and Products*, 4th ed., Academic Press, New York 1965.

On page 653, formula 6.317 should be corrected by replacing  $\pi/4$  with  $\sqrt{\pi}/2$  in the right member. The same correction applies to the source [1] of this formula.

J. R. MCGREGOR

Department of Mathematics  
The University of Alberta  
Edmonton, Alberta, Canada T6G 2G1

1. A. ERDÉLYI, W. MAGNUS, F. OBERHETTINGER & F. G. TRICOMI, *Tables of Integral Transforms*, Vol. 1, McGraw-Hill, New York, 1954, p. 96, formula (2).

EDITORIAL NOTE: For previous notices of errata in this edition see *Math. Comp.*, v. 30, 1976, p. 899, MTE 528 and the editorial footnote thereto; also, v. 31, 1977, p. 614, MTE 534, and v. 32, 1978, p. 318, MTE 550.