TABLE ERRATA


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]:

<table>
<thead>
<tr>
<th>$\rho$</th>
<th>for read</th>
<th>$\rho$ for read</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.94</td>
<td>8.6104</td>
<td>8.6103</td>
</tr>
<tr>
<td>0.95</td>
<td>10.2716</td>
<td>10.2717</td>
</tr>
<tr>
<td>0.96</td>
<td>12.7661</td>
<td>12.7668</td>
</tr>
<tr>
<td>0.97</td>
<td>16.9266</td>
<td>16.9289</td>
</tr>
<tr>
<td>0.98</td>
<td>25.2522</td>
<td>25.2579</td>
</tr>
<tr>
<td>0.99</td>
<td>50.2421</td>
<td>50.2538</td>
</tr>
</tbody>
</table>

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:

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

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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:

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

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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, \(|e^{\pm i\theta}| < |\rho|\), should be added.

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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).)


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.

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