

TABLE ERRATA

594.—W. MAGNUS, F. OBERHETTINGER & R. P. SONI, *Formulas and Theorems for the Special Functions of Mathematical Physics*, third enlarged edition, Springer, New York, 1966.

- p. 1: Line 6 up: For $\frac{t^u}{n!}$, read $\frac{t^n}{n!}$.
- p. 13: Line 11 up: Read $\psi(1+z) =$ instead of $=$.
Add , $|z| < 1$,
- p. 13: Line 10 up: Read $\psi(1+z) =$ instead of $=$.
Add , $0 < |z| < 1$.
- p. 13: Line 6 up: For $\psi(z)$, read $\psi(x)$.
- p. 14: Line 1 up: For $\psi^n(z+l/m)$, read $\psi^{(n)}(z+l/m)$.
- p. 15: Line 2 up: For $\psi^n(\frac{1}{2})$, read $\psi^{(n)}(\frac{1}{2})$.
- p. 21: Line 6: For $\operatorname{Re} z > -1$, read $\operatorname{Re} z > 1$ [cf. EH I 32(7)].
- p. 21: Line 7: For t^{-z} , read t^z [cf. EH I 32(8)].
- p. 27: Line 7: Add , $n = 1, 2, \dots$ [cf. the first formula on this page].
- p. 32: Line 3: Add $n = 1, 2, \dots$
Line 10: For E^{m+1} , read $E^{(m+1)}$; for E^m , read $E^{(m)}$.
- p. 33: Last line: For $\Gamma(m+2)$, read $(m+1)\Gamma(m+2)$.
Add $|\log z| < 2\pi$.
- p. 34: Line 2 up: For $\operatorname{Re} s < 1, 0 < \alpha < 1$,
read $\operatorname{Re} s < 0, 0 < \alpha \leq 1$ [cf. EH I 28(6)].
- p. 38: Line 11: For $z_2 F_1$, read $\pm z_2 F_1$.
- p. 71: Last line: For $\frac{\partial}{\partial z}$, read $\frac{\partial}{\partial \nu}$.
- p. 74 }
p. 75 } 3.3.3 Replace z by x everywhere.
- p. 75: Line 7: Add $|\arg z| < \frac{2}{3}\pi$.
- p. 75: Line 6: up is incorrect.
- p. 88: Line 3 up: Add $\operatorname{Re} \mu > -\frac{1}{2}, \operatorname{Re} \nu > -\frac{1}{2}$.
- p. 89: Line 4: For $J_{2\nu+2m+1}(z)$, read $J_{2\nu+2m+1}(2z)$.
- p. 124: Line 10 up: For $\Gamma(\nu+1)$, read $a^{-\nu}\Gamma(\nu+1)$.
- p. 131: Line 8 up: Delete $(-1)^{n-1}$.
Line 6 up: Move B_{2n} to line 5 up.
- p. 132: Line 6: Replace ∞ by m_2 .
Line 13 up: For $[(2m_2)$, read $[(2m$.
- p. 154: Line 3: For $\left(\frac{z-1}{z+1}\right)^{\frac{1}{2}\mu}$, read $\left(\frac{z-1}{z+1}\right)^\mu$ [cf. EH I 141(17)].
- p. 154: Line 7 up: For $\Gamma(\frac{1}{2}-\mu)$, read $\Gamma(\frac{1}{2}-\nu)$.
Line 4 up: For $[z+(z^2-1)^{1/2}]$, read $[z-(z^2-1)^{1/2}]$.
- p. 167: Line 9 up: For $\times F(\frac{1}{2}-\frac{1}{2}\nu-\frac{1}{2}\mu)$, read $\times x F(\frac{1}{2}-\frac{1}{2}\nu-\frac{1}{2}\mu)$ [cf. EH I 144(12)].
- p. 174: Line 2 up: Replace z by x .

- p. 176: Line 6: For $\sum_{n=0}$, read $\sum_{m=0}$ [cf. GR 1019].
For (x) , read (z) .
- p. 177: cf. Hansen [1, p. 370] Formulas (56.2.8) and (56.2.9):
Line 7: Delete the comma.
Line 9: For $|t| < 1$, read $|h| < 1$.
Line 10: Add $= \sum_{n=0}^{\infty} h^n Q_n(x)$, $-1 < x < 1$,
Line 11: For $\times(z-t)^{-1}$, read $(z-t)^{-1}$.
- p. 178: Line above 4.5: For Q_v , read Q_ν .
- p. 179: Line 8: For $Q_\nu^m(\cos \theta)$, read $Q_\nu^m(\cos \theta')$ [cf. EH I 169(3) and Errata].
- p. 180: Line 11 up: Replace the German \mathfrak{B} 's by Latin P 's.
- p. 182: Line 11 up: For $(\cos \vartheta)$, read $(-\cos \vartheta)$.
- p. 195: Lines 17 and 18 up: According to EH I 162 Sec. 3.9.1:
Read: ... in $-\pi < \arg c < \pi$ even when the series does not converge,
provided only that ζ is not a real number. . . .
- p. 197: Line 2 up: The asymptotic behavior should read

$$e^{i\pi\mu} \pi^{1/2} (2z)^{-n-3/2} \Gamma(n + \frac{3}{2} + \mu) / \Gamma(n + 2).$$

- p. 200: Line 11 up: For $v \rightarrow 0$, read $\nu \rightarrow 0$.
- p. 213: Line 8 up: For $)_3$, read $)_3 x$.
This corrects the corresponding entry in MTE 575 (*Math. Comp.*, v. 36, 1981, p. 316).
- p. 215: Line 12: Read $+Q_n^{(\alpha,\beta)}$ instead of $-Q_n^{(\alpha,\beta)}$ [cf. Szegő [2, (4.62.9)]].
Line 9 up: The integral representation is incorrect.
For dz read $\frac{dz}{z-x}$.
- p. 220: Line 4: Replace $\Gamma(n+1)$ by $n!\Gamma(2\lambda)$.
- p. 222: The last two equations of the recurrence relations for C_n^λ are incorrect. Read instead:

$$C_n^{\lambda+1}(x) = x C_{n-1}^{\lambda+1}(x) + \frac{n+2\lambda}{2\lambda} C_n^\lambda(x).$$

- p. 233: Line 8: Replace $\sqrt{1-2t\cos(\theta+\varphi)+t^2} \sqrt{1-2t\cos(\theta-\varphi)+t^2}$
by $\sqrt{1-2t\cos(\theta+\varphi)+t^2} + \sqrt{1-2t\cos(\theta-\varphi)+t^2}$.
According to Hansen [1, p. 306], we have

$$\begin{aligned} \sum_{k=0}^{\infty} t^k P_k(\cos x) P_k(\cos y) &= \frac{4/\pi}{u+v} K\left(\frac{u-v}{u+v}\right) \\ &= \frac{2}{\pi u} K\left[\frac{2}{u}(t \sin x \sin y)^{1/2}\right] \\ &= \frac{2}{\pi v} K\left[\frac{2}{v}(-t \sin x \sin y)^{1/2}\right], \end{aligned}$$

$$\begin{aligned} \text{where } u &= [1+t^2-2t\cos(x+y)]^{1/2}, \\ v &= [1+t^2-2t\cos(x-y)]^{1/2}. \end{aligned}$$

- p. 234: Line 12 up: Read $m = 1$ instead of $m = 0$.
 p. 235: Line 9 up: Read $i\sqrt{1-x^2}$ instead of $\sqrt{x^2-1}$.
 [Cf. the correction on p. 188 in MTE 477 (*Math. Comp.*, v. 25, 1971, p. 201)].

p. 235: 5.4.3

Asymptotic expansions:

Note that the convention of EH I is used here, according to which $(x^2 - 1)^{1/2}$ is defined by

$$(x^2 - 1)^{1/2} := (x - 1)^{1/2}(x + 1)^{1/2}.$$

This means a deviation from the ordinary definition, i.e.,

$$w^\alpha := \exp(\alpha \ln w).$$

The cut $ix \in (-\infty, \infty)$ of $(x^2 - 1)^\alpha$ divides the complex x plane in two *disconnected* parts. In the right-half plane, i.e. $\operatorname{Re} x > 0$, we have (indeed)

$$(x^2 - 1)^\alpha = (x - 1)^\alpha(x + 1)^\alpha.$$

However, in the left-half plane, $\operatorname{Re} x < 0$, we have

$$\begin{aligned} (x^2 - 1)^\alpha &= e^{-2i\pi\alpha}(x - 1)^\alpha(x + 1)^\alpha, & \operatorname{Im} x > 0, \\ &= e^{+2i\pi\alpha}(x - 1)^\alpha(x + 1)^\alpha, & \operatorname{Im} x < 0. \end{aligned}$$

It may be noted, furthermore, that

$$\left(\frac{x-1}{x+1}\right)^\alpha = \frac{(x-1)^\alpha}{(x+1)^\alpha}$$

for all $x \in \mathbf{C} \setminus (-\infty, 1]$.

By taking the appropriate limit of the right-hand side on part of the cut, $(-\infty, -1)$, it follows that the discontinuity across this part of the cut vanishes. This implies that the analytic continuation of the right-hand side on $(-\infty, -1)$ is equal to the left-hand side. The remaining cut is $[-1, 1]$.

- p. 238: Line 7: For $0 \leq \theta < \pi$, $0 \leq \varphi < \pi$, read $0 \leq \varphi < \theta < \pi$.
 p. 239: Line 5: For $\cos n\delta$, read $\cos m\delta$ [Cf. EH I 168(2)].
 p. 267: Line 6 up: For $(c - a)$, read $z(c - a)$.
 p. 271: Line 4: For $W(w_1, w_6)$, read $W(w_1, w_7)$.
 Line 5: For $W(w_1, w_7)$, read $W(w_1, w_6)$ [Cf. EH I, pp. 253 and 259].
 p. 277: Line 6 up: For $2^{1-c}e^z$, read $2^{1-c}e^{\frac{1}{2}z}$.
 p. 284: Lines 2 and 3: Replace $\pi(\nu - z)$ by $(\pi\nu - z)$
 In Line 2 the right-hand side should be preceded by a minus sign.
 p. 288: Line 11 up: For -2γ , read $+2\gamma$. [Cf. EH I 261(13)].
 Line 2 up: For $|z|^{\operatorname{Re} c - 2}$, read $|z|^{2 - \operatorname{Re} c}$ [Cf. EH I, pp. 257 and 261].
 p. 289: Line 7: For $-N$, read $-M$.
 p. 304: Line 4: For $\sqrt{z} W_{\kappa+1/2, \mu-1/2}(z)$, read $-\sqrt{z} W_{\kappa+1/2, \mu-1/2}(z)$.
 p. 493: In the definition of $n!$ replace the commas by the symbol \cdot .

The preceding list of errata is an abridgment of our Corrigenda Report 82 03. The inaccuracies and misprints of minor importance listed in this report have been omitted in this abridgement. Copies of the report will be available upon request.

H. VAN HAERINGEN AND L. P. KOK

Department of Mathematics
Delft University of Technology
Delft, The Netherlands

Institute for Theoretical Physics
P.O. Box 800
Groningen, The Netherlands

1. ELDON R. HANSEN, *A Table of Series and Products*, Prentice-Hall, Englewood Cliffs, N.J., 1975.
2. G. SZEGÖ, *Orthogonal Polynomials*, 4th ed., Amer. Math. Soc. Colloq. Publ., vol. 23, Amer. Math. Soc., Providence, R.I., 1975.

595.—Bateman Manuscript Project: A. ERDÉLYI, W. MAGNUS, F. OBERHETTINGER & F. G. TRICOMI, *Higher Transcendental Functions*, Vol. I, McGraw-Hill, New York, Toronto, London, 1953.

- p. 35: (1) For $z < 2\pi$, read $0 < |z| < 2\pi$.
 p. 136: (43) Second line: For 2μ , read 2^μ .
 p. 143: Line 2: For (20), read (21).
 p. 143: Line 3: For $\Gamma(\frac{1}{2} - \mu)$, read $\Gamma(\frac{1}{2} - \nu)$.
 p. 144: (12) For z read x .
 p. 231: (5) For \times , read $=$.
 p. 262: (6) For $\text{Re } c - 2$, read $2 - \text{Re } c$.
 p. 266: (17) For $c^{-i\pi c}$, read $e^{-i\pi c}$.

596.—Bateman Manuscript Project: A. ERDÉLYI, W. MAGNUS, F. OBERHETTINGER & F. G. TRICOMI, *Higher Transcendental Functions*, Vol. II, McGraw-Hill, New York, Toronto, London, 1953.

- p. 64: (6) Read $a^{-\nu}(\frac{1}{2}z)^{\mu-\nu}$ instead of $(\frac{1}{2}az)^{\mu-\nu}$.
 p. 82: (24) Read $\text{Im}(a^2z) < 0$ instead of $\text{Im}(a^2z) > 0$.
 p. 183: (47) Read $\cos m\varphi$ instead of $\cos n\varphi$.
 p. 186: (30) Delete $1 +$.
 p. 225: (5) Read $x + 1 - n$ instead of $x - n$.
 (6) Add $0 \leq x \leq N$, x integer.

[Cf. G. Szegö, *Orthogonal Polynomials*, 4th ed., Amer. Math. Soc. Colloq. Publ., vol 23, Amer. Math. Soc., Providence, R.I., 1975, Sec. 2.82.]

597.—Bateman Manuscript Project: A. ERDÉLYI, W. MAGNUS, F. OBERHETTINGER & F. G. TRICOMI, *Higher Transcendental Functions*, Vol. III, McGraw-Hill, New York, Toronto, London, 1955.

- p. 101: (15) For $1 + 2\Delta$, read $1 - 2\Delta$.

598.—Bateman Manuscript Project: A. ERDÉLYI, W. MAGNUS, F. OBERHETTINGER & F. G. TRICOMI, *Tables of Integral Transforms*, Vol. I, McGraw-Hill, New York, Toronto, London, 1954.

- p. 10: (29) The result 0 given for m even is incorrect. For example, take $m = 2$, $n = 1$.
- p. 11: (4) On the right-hand side y should be replaced by $y/2$ everywhere.
- p. 19: (5) Read $y = 1, 2, 3, \dots$ instead of $y = 0, 1, 2, \dots$.
- p. 20: (11) Read $\sum_{0 \leq r < (y+n)/2}$ instead of $\sum_{0 < r < (y+n)/2}$
- p. 30: (8) The right-hand side should be divided by $\sinh(\pi y)$; hence replace $\cosh(\pi y)$ by $\operatorname{ctnh}(\pi y)$.
- p. 67: (38) The result 0 given for m odd is incorrect. For example, take $m = 1$, $n = 1$.
- p. 67: (38) For $0 \leq m \leq 2n$ read $0 < m \leq 2n$.
- p. 67: (38) For $\{\cos$ read $\cos\{$
- p. 68: (2) For $\frac{1}{2}\nu^{-1}$ read $-i\frac{1}{2}\nu^{-1}$.
Add $\nu \neq 0$.
- p. 68: (4) On the right-hand side y should be replaced by $y/2$ everywhere.
- p. 68: (5) For $\frac{1}{2}B$ read $-i\frac{1}{2}B$.
- p. 70: (15) For πi read $-\pi i$.
- p. 70: (16) For $1 - ay$ read $\nu - 1 - ay$.
- p. 70: (17) For $(-1)^{n+1}$ read $(-1)^n$.
- p. 73: (13) The right-hand side should read $\frac{1}{2}\pi \tanh(\pi y)$.
- p. 120: (20) For $0 < \operatorname{Re} \alpha < n$, read $0 < \operatorname{Re} \lambda < n$.
- p. 122: (32) Read 2 instead of -2 , both in the first line and in the second line on the right-hand side.
- p. 308: (5) For $\arg(1 - ab)$ read $\arg(1 + ab)$.
- p. 310: (22) For $-\pi < \theta < \pi$, read $0 < \theta < \pi$.
- p. 321: (37) is wrong, even after the correction suggested in the errata on page xvi. Its right-hand side should read

$$(2a)^{-\frac{1}{2}s} \Gamma(s) \exp\left(\frac{1}{4a}\right) \cos\left(\frac{1}{4}\pi s\right) D_{-s}(a^{-1/2}), \quad \operatorname{Re} s > 0.$$

599.—Bateman Manuscript Project: A. ERDÉLYI, W. MAGNUS, F. OBERHETTINGER & F. G. TRICOMI, *Tables of Integral Transforms*, Vol. II, McGraw-Hill, New York, Toronto, London, 1954.

- p. 199: (92) For a^κ , read $a^{\kappa+1}$.
- p. 278: (22) For $\Gamma(\mu + n)$, read $\Gamma(\mu + n + 1)$.
- p. 284: (1) The right-hand side should be divided by $n!$. In MTE 533 it is stated that for $\Gamma(\alpha + n + 1)$ one should read $\Gamma(\alpha + 1)$. Unfortunately, this is incorrect. The reason for this mistake is that the *incorrect* formula (3) on page 284 has been used for the derivation. (Cf. the corresponding entry in our list.)
- p. 284: (3) The right-hand side should be multiplied by

$$\Gamma(\alpha + n + 1)[n!\Gamma(\alpha + 1)]^{-1}.$$

The preceding list of errata is an abridgment of our Corrigenda Report 82 04. The inaccuracies and misprints of minor importance listed in this report have been omitted in this abridgment. Copies of the report will be available upon request.

H. VAN HAERINGEN AND L. P. KOK

Department of Mathematics
Delft University of Technology
Delft, The Netherlands

Institute for Theoretical Physics
P. O. Box 800
Groningen, The Netherlands

600.—M. ABRAMOWITZ & I. A. STEGUN, Editors, *Handbook of Mathematical Functions*, Dover, New York, 1965.

p. 336: 8.10.3 The right-hand side should read, in part,

$$\frac{\pi e^{-i\pi\mu} \csc[\pi(\nu - \mu)]}{2\Gamma(1 + \mu)} [\dots]$$

p. 336: 8.10.6 In the denominator of the right-hand side,
for $\Gamma(\frac{1}{2} - \mu)$, read $\Gamma(\frac{1}{2} + \nu)$.

p. 440: 10.1.41 For $(\frac{1}{2}\pi/x)$, read x^{-1} .

10.1.42 For $(\frac{1}{2}\pi/x)$, read x^{-1} .

10.1.43 For $(\frac{1}{2}\pi/x)$, read x^{-1} .

10.1.44 For $(\frac{1}{2}\pi/x)$, read $-x^{-1}$.

p. 445: 10.2.35 Add $|re^{\pm i\theta}| < |\rho|$.

p. 508: 13.5.6 For $\Re b - 2$, read $2 - \Re b$.

p. 508: 13.5.9 For $\psi(a)$, read $\psi(a) + 2\gamma$.

H. VAN HAERINGEN AND L. P. KOK

Department of Mathematics
Delft University of Technology
Delft, The Netherlands

Institute for Theoretical Physics
P. O. Box 800
Groningen, The Netherlands

601—I. S. GRADSHTEYN & I. M. RYZHIK, *Table of Integrals, Series and Products*, Corrected and enlarged edition, Academic Press, New York, First Printing, 1980.

P. xxxii: Line 5 from bottom. Read \int_1^∞ for \int_0^∞ .

P. 354: 3.531.1; and p. 533: 4.233.2. One is the negative of the other. Except for sign, there are slight differences in the numerical values.

P. 361: 3.551.5. Add $\beta > \gamma$.

P. 373: 3.631.15. The portion in braces can be expressed as

$$\begin{aligned} & \frac{2^{-m}}{n-m} {}_2F_1\left(-m, -\frac{m-n}{2}; 1 - \frac{m-n}{2}; -1\right) \\ & - 2^{-m-1} \frac{\Gamma(1+m)\Gamma\left(\frac{n-m}{2}\right)}{\Gamma\left(\frac{m+n}{2}+1\right)} \cos\left(\frac{n-m}{2}\right)\pi. \end{aligned}$$

P. 374: 3.631.17. The portion in braces can be expressed as

$$2^{-m-1} \frac{\Gamma(1+m)\Gamma\left(\frac{n-m}{2}\right)}{\Gamma\left(\frac{m+n}{2}+1\right)} \sin\left(\frac{n-m}{2}\right)\pi.$$

P. 374: 3.631.18. The second parameter of the ${}_2F_1$ should read $-(a+m)/2$. The same error is in the source WA (Watson), but p. 313, not p. 342. It is also given incorrectly in MO (Magnus and Oberhettinger), p. 16. The result is also valid for a an integer. See also Errata #282, Math. Comp., v. 14, 1960, p. 221. If

$$L_m = \int_0^\pi \cos^m x \cos ax \, dx,$$

$$L_{2r} = \frac{-2a \sin \pi a}{2^{2r}} \sum_{k=0}^{r-1} \frac{\binom{2r}{k}}{4(r-k)^2 - a^2} + \frac{\binom{2r}{r} \sin a\pi}{2^{2r}a},$$

$$L_{2r+1} = \frac{2a \sin a\pi}{2^{2r+1}} \sum_{k=0}^r \frac{\binom{2r+1}{k}}{(2r+1-2k)^2 - a^2}.$$

P. 374: 3.631.20. Add $\operatorname{Re}(n) > -1$.

P. 374: 3.632.3. Add the condition $n > 0$; Also for $n \leq 0$ and p not an integer

$$\int_0^\pi \cos^p x \sin(p+2n)x \, dx = \frac{2^{n+1}}{n+p} {}_2F_1(1-n, -p-n; 1-p-n; \frac{1}{2}) - \frac{(p+1-2n)\pi \cot(p-n)\pi}{(p+1-n)(1-n)},$$

for p an integer and $n \neq 0$, use p. 373, 3.63.15; for p an integer, use p. 373, 3.631.16 if $n = 0$.

P. 447: 3.824.3. The formula is correct, but an equivalent and more tractable form is

$$\frac{\pi}{2^{2m+1}a} \sum_{k=0}^m (-1)^k \binom{2m}{m-k} e^{-2ka}.$$

Note: This formula as well as p. 448: 3.824.5, .6, .7 can be expressed in hypergeometric form since

$$\sum_{k=0}^m \binom{p}{q-k} z^k = \frac{\Gamma(p+1)}{\Gamma(q+1)\Gamma(p-q+1)} {}_2F_1(-q, 1; p-q+1; -z).$$

P. 448: 3.824.4. Lower limit of second sum should be 0.

P. 449: 3.827.1. The condition on ν should read $0 < \operatorname{Re} \nu < 4$.

P. 455: 3.832.20. Add $m = 0, 1, 2, \dots$

P. 455: 3.832.22. Read $s > 0, n \geq 0, \operatorname{Re}(a) > 0$; for $n = 1$, see p. 406: 3.723.3.

P. 459: 3.838.3-4. These are both special cases of 3.838.2. The latter holds for non-integer values of the exponents.

- P. 477: 3.893.4. The integral is meaningless since the integrand has an infinite number of poles on the path of integration, unless a/b is an integer in which case it becomes equivalent to 3.893.5 or 3.893.6 according as a/b is odd or even, respectively.
- P. 478: 3.895.2, .3, .5, .6, .8, .10. Remove the restriction $p \neq 0$ since all expressions are valid in the limit as $p \rightarrow 0$.
- P. 479: 3.895.12, .14. Read $a \geq 0, n > 0$.
- P. 479: 3.895.11, .13. Read $a \geq 0$. More tractable forms for equations (11)–(14) are

$$(11), (13): \quad \begin{array}{l} \text{Re} \\ \text{Im} \end{array} \left\{ \frac{\pi(2n!)}{2^{2n+1} \sin\left(\frac{\alpha + i\beta}{2}\right) \pi \Gamma\left(n + 1 + \frac{\alpha + i\beta}{2}\right) \Gamma\left(n + 1 - \frac{\alpha + i\beta}{2}\right)} \right\}$$

$$(12), (14): \quad \begin{array}{l} \text{Im} \\ \text{Re} \end{array} \left\{ \frac{\pi(2n+1)!}{2^{2n+1} \cos\left(\frac{\alpha + i\beta}{2}\right) \pi \Gamma\left(n + \frac{1}{2} + \frac{\alpha + i\beta}{2}\right) \Gamma\left(n + \frac{1}{2} - \frac{\alpha + i\beta}{2}\right)} \right\}$$

- P. 481: 3.899.2: On the left-hand side read $\cos(4n+1)x$ for $\sin(4n+1)x$. On the right-hand side read $-(k/p)^2$ in the exponent. The latter mistake is also in the source BI.
- P. 1073: 9.524. On the right-hand side for k^2 read k^z .

HENRY E. FETTIS

1885 California, Apt. 62
Mountain View, California 94041

-
- P. 589: 4.389.5. The right-hand side should read

$$\frac{\pi}{2^{p+1}} [C + \psi(p+1) - 2 \ln 2] \quad (p > -1).$$

The same correction should be applied to the source BI.

EMERIC DEUTSCH

Department of Mathematics
Polytechnic Institute of New York
Brooklyn, New York 11201

The following errata were detected by use of the Soviet MIR-2 computer. The author thanks Y. L. Luke for his aid in preparing this note for publication.

- P. 298: 3.254.2. Replace $\Gamma(\lambda - \mu)$ by $\Gamma(\lambda - 2\nu)$.
- P. 424: 3.768.3. Replace the right-hand side by $a^{-\nu-1/2} s_{\nu+1/2, 1/2}(a)$
[$\text{Re } \nu > -1$]

Note that this is a special case of an alternative representation for 3.768.5 given by H. van Haeringen and L. P. Kok in their list of errata. See *Math. Comp.*, v. 39, 1982, pp. 747–757.

- P. 427: 3.771.12. In the first equation for $s_{\nu, \nu+1}(au)$ read $s_{\nu-1, \nu+1}(au)$. In the second equation for $(\nu + \frac{1}{2})$ read $(\nu + \frac{1}{2})^{-1}$.
 [Re $\nu > -\frac{1}{2}$].
- P. 681: 6.551.1. Replace $(\nu - \frac{1}{2}) + J_\nu(y)S_{-1/2, \nu-1}(y)$ by $(\nu - \frac{1}{2})J_\nu(y)S_{-1/2, \nu-1}(y)$.
 This pertains to the 4th edition only. 6551.1 is a special case of 6.561.13.
 See below.
- P. 683: 6.561.6. In the right-hand side divide the second term by π .
- P. 684: 6.561.13. For the right-hand side read

$$\frac{2^\mu \Gamma\left(\frac{\nu + \mu + 1}{2}\right)}{a^{\mu+1} \left(\frac{\nu - \mu + 1}{2}\right)} + a^{-\mu} \{(\mu + \nu - 1)J_\nu(a)S_{\mu-1, \nu-1}(a) - J_{\nu-1}(a)S_{\mu, \nu}(a)\}.$$

This is equivalent to

5

$$a^{-\mu} \{(\mu + \nu - 1)J_\nu(a)s_{\mu-1, \nu-1}(a) - J_{\nu-1}(a)s_{\mu, \nu}(a)\}.$$

- P. 702: 6.592.2. In the second term of the right-hand side replace $2^{1-\nu}$ by $2^{-1-\nu}$.
 See 6.592.7 below for a special case.
- P. 702: 6.592.7. Replace $\sqrt{\frac{\pi}{2}} \sec$ by $\frac{1}{2}\pi \sec \frac{\nu\pi}{2}$.
- P. 849: 7.512.6. The right-hand side should read $B(\lambda, \beta - \lambda)(1 - z/b)^{-\alpha}$.

ERNST D. KRUPNIKOV

Poste Restante
 Novosibirsk 90
 630090, USSR

EDITORIAL NOTE. For a comprehensive list of previous errata, see *Math. Comp.*, v. 39, 1982, pp. 747-757 and the sources noted there. Except for the p. 681: 6.551.1 entry given herein, all errata also pertain to the 4th edition of 1964.

602.—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 page 777, in formula 22.4.6 the value of $P_n(0)$ should read

$$\frac{(-1)^m}{2^{2m}} \binom{2m}{m}, \quad \text{for } n = 2m.$$

I. M. LONGMAN

Department of Geophysics and Planetary Sciences
 Tel-Aviv University
 Ramat Aviv, Israel