Errata for

Tables of Integrals, Series, and Products, 6^{th} edition

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NOTES:

1 Due to our procedures for verifying errata, the date that an entry is updated may be significantly later than the date that the errata was brought to our attention.
2 The date that an update to these errata pages is made is shown in the margin.
3 Sometimes many contributors bring the same errata to our attention.
4 The latest errata is available from `http://www.mathtable.com/zwillinger/errata/`.

ERRATA:

2001 1 **Index of Special Functions**, page xl, in the Notation column,

(a) replace "$\mathrm{erf}(x) = \Phi(x)$" with "$\mathrm{erf}(x)$"
(b) replace "$\mathrm{erfc}(x) = 1 - \Phi(x)$" with "$\mathrm{erfc}(x) = 1 - \mathrm{erf}(x)$'

2005 2 **Acknowledgements**, pages xxiii–xxv, The following names should be added

- Dr. Luis Alvarez-Ruso
- Dr. Maarten H P Ambaum
- Dr. M. Antoine
- Dr. P. Ashoshauvati
- Dr. Florian Baumann
- Dr. Jerome Benoit
- Dr. Laurent Berger
- Dr. Ian Bindloss
- Dr. Anders Blom
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- Dr. Christoph Bruegger
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- Dr. Chris Herzog
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- Dr. Steven Johnson
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- Dr. Florian Kaempfer
- Dr. Dave Kasper
- Dr. Ilki Kim

- Dr. Youngsun Kim
- Dr. Yannis Kohninos
- Dr. Mel Knight
- Dr. Stefan Kramer
- Dr. Tobias Kramer
- Dr. Hermann Krebs
- Dr. Kun-Lin Kuo
- Dr. Konstantinos Kyritsis
- Todd Lee
- Dr. M. Howard Lee
- Dr. Armando Lemus
- Dr. Michael Lexa
- Dr. H. Li
- Dr. Kuo Kan Liang
- Dr. Donald Livesay
- Dr. Georg Lohoefer
- Dr. Sylvie Lorthois
- Dr. R. Mahurin
- Dr. A. Mangiarotti
- Sr. Yuzo Maruyama
- Dr. David J. Masiello
- Dr. David McA McKirdy
- Dr. Angelo Melino
- Dr. Rami Mehrem
- Dr. Gerard P. Michon
- Dr. Victor H. Moll
- Mr. Tony Montagnese
- Dr. Pablo Parmezani Munhoz
- Dr. Stefan Neumeier
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- Dr. D. Papadopoulos
- Mr. Man Sik Park
- Dr. Nicola Pessina
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- Dr. Mel Schopper
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- Dr. Masaki Shigemori
- Kenneth Ing Shing
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- Dr. Marcus Spradlin
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- Dr. Robert Whittaker
- Dr. D. T. Wilton
- Dr. J. D. Wright
- Dr. M. D. Yacoub
- Mr. Chun Kin Au Yeung
- Dr. Kazuya Yuasa

3 **Acknowledgements**, pages xxiii–xxv, the following correction should be made:

(a) The name “Dr. V. I. Fabricant” should have been “Dr. V. I. Fabrikant”.

(b) The name “Dr. D. Ruddermann” should have been “Dr. D. Ruderman”.

2002

2002 4 **Order of Presentation**, page xxviii, the fourth integral on the page has the expression “$\ln 2 \cosh pv$”. While correct, this would be better written as “$\ln(2\cosh pv)$”.

(Thanks to Leslie Green for this correction.)

2005 5 **Text**, pages xxxi, xxxiii, xxxvi, and xxxviii all refer to “Ryzhik and Gradshteyn” when it should be “Gradshteyn and Ryzhik”.

(Thanks to Leslie Green for this correction.)

2005 6 **Formula**, page xxxv, the first formula on the page is

$$-\Psi'(z\boxed{-}1) = -\Psi'(z) + \frac{1}{z^2}$$

which is incorrect. It should have been

$$\Psi'(z\boxed{+}1) = \Psi'(z) - \frac{1}{z^2}$$

(Thanks to Nicola Pessina for correcting this error.)

2002 7 **Use of the tables**, page xxxvii, the second sentence following **Bessel Functions** now begins

> Some common ones involve $\boxed{\text{s}}$ the replacement of $Y_n(z)$ by $Y_{\boxed{n}}(z)$ and the introduction of the symbol

This is incorrect, it should have been:

> Some common ones involve the replacement of $Y_n(z)$ by $Y_{\boxed{\nu}}(z)$ and the introduction of the symbol

2002 8 **Index of Special Functions**, page xxxix, lines 12 and 20 both have $\Phi(x)$ in the notation column. Remove line 20.

2002 9 **Formula 0.122.4**, page 2, the result is now

$$\frac{1}{2}\left[m(n+1)-2\right]$$

This is incorrect, it should have been

$$\frac{\boxed{n}}{2}\left[m(n+1)-2\right]$$

2001 10 **Formula 0.131**, page 3, the evaluation now begins

$$= \boxed{C} + \ldots$$

This is incorrect, it should have been (the font for C was incorrect):

$$= \boxed{\boldsymbol{C}} + \ldots$$

(Thanks to Marcus Spradlin for correcting this error.)

2005 11 **Formula 0.239 1**, page 10, the summand is now

$$(-1)^{\boxed{n}+1}\frac{1}{3k-2}$$

which is incorrect. It should have been

$$(-1)^{\boxed{k}+1}\frac{1}{3k-2}$$

(Thanks to Martin Gotz for correcting this error.)

2001 12 **Summation 0.241.3**, page 11, the result can be further simplified to $\frac{1}{\sqrt{1-4p}}$.
(Thanks to Victor H. Moll and George Boros for this suggestion.)

2002 13 **Summation 0.245 3**, page 12, the summation is now

$$\sum_{k=1}^{\infty}\frac{k}{(2k+1)!} = \frac{1}{e}\boxed{= 0.36787\ldots}$$

This is incorrect, it should have been:

$$\sum_{k=1}^{\infty}\frac{k}{(2k+1)!} = \frac{1}{\boxed{2}e}\boxed{\approx 0.1839397}$$

2005 14 **Formula 0.318 1**, page 18, the last term is now

$$+\frac{x^2}{2!}f'(a)+\ldots$$

This is incorrect, it should have been

$$+\frac{x^2}{2!}f''(a)+\ldots$$

(Thanks to Dave Kasper for correcting this error.)

2005 15 **Formula 0.32 3**, page 18, the limits on the first integral are now $-t$ and t; which are incorrect. These limits should have been $-l$ and l.

(Thanks to Pablo Parmezani Munhoz correcting this error.)

2003 16 **Section 0.322**, page 19, line 2 now has the formula:

$$\frac{\boxed{2}}{2}\{f(x_0+0)+f(x_0-0)\}$$

This is incorrect. It should have been

$$\frac{\boxed{1}}{2}\{f(x_0+0)+f(x_0-0)\}$$

(Thanks to Leslie Green for correcting this error.)

2003 17 **Section 0.330**, page 20, third line from the bottom now reads, in part:

$$S_n(z)=\sum_{k=0}^{n}\frac{A_k}{\boxed{2}^k}, \text{ satisfies the condition} \ldots$$

This is incorrect. It should have been

$$S_n(z)=\sum_{k=0}^{n}\frac{A_k}{\boxed{z}^k}, \text{ satisfies the condition} \ldots$$

(Thanks to Mel Knight for correcting this error.)

2003 18 **Section 0.440**, page 23, the first line now reads, in part:

Let $\boxed{f(x)}$ and $g(x)$ be continuous in …

This is incorrect. It should have been

Let $\boxed{f[g(x)]}$ and $g(x)$ be continuous in …

(Thanks to Mel Knight for correcting this error.)

2001 19 **Formula 1.112 3**, page 25, The formula now reads:

$$(1+x)^{1/2}=1+\frac{1}{2}x\boxed{+}\frac{1\cdot 1}{2\cdot 4}x^2+\ldots$$

This is incorrect, it should have been:

$$(1+x)^{1/2}=1+\frac{1}{2}x\boxed{-}\frac{1\cdot 1}{2\cdot 4}x^2+\ldots$$

(Thanks to Filippo Colomo for correcting this error.)

2001 20 **Formula 1.211 1**, page 26, the right hand side is now

$$\sum_{k=0}^{\infty} \frac{x^{\boxed{h}}}{k!}$$

This is incorrect, it should have been (the exponent should be "k', not "h")

$$\sum_{k=0}^{\infty} \frac{x^{\boxed{k}}}{k!}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2002 21 **Page heading**, page 27, is now

Introduction

This is incorrect, it should have been:

Functional relations

2002 22 **Formulae 1.334 3, 5**, page 34. Each of these formulae has a "chx" on the right hand side; these should have been "$\cosh x$".

23 **Integral 1.352 1 and 1.352 2**, page 37, in three cases the expression "$\sin \dfrac{x}{2}$" should have been smaller and
2005 shown as "$\sin \frac{x}{2}$".

(Thanks to Leslie Green for this correction.)

2005 24 **Formulae 1.393 2**, page 40. Both of the evaluations of this formula have "[n odd]". The second evaluation should be "[n even]". Also, the exponent on the second line, $\frac{n}{2}$, is shown too large.

(Thanks to Leslie Green for this correction.)

2002 25 **Formula 1.411 6**, page 41, the formula is now, in part,

$$\tanh x = x - \frac{x^3}{3} + \frac{2x^5}{15} \boxed{+} \frac{17}{315} x^7 + \cdots$$

This is incorrect, it should have been

$$\tanh x = x - \frac{x^3}{3} + \frac{2x^5}{15} \boxed{-} \frac{17}{315} x^7 + \cdots$$

(Thanks to Louie Louie for correcting these errors.)

2005 26 **Formula 1.422 6** page 43, should be deleted.

2005 27 **Formula 1.432 1**, page 44, the first term in the infinite series is now

$$\left(1 - \frac{x^2}{(2k\pi + y^{\boxed{2}})}\right)$$

which is incorrect. It should have been

$$\left(1 - \frac{x^2}{(2k\pi + y)^{\boxed{2}}}\right)$$

(Thanks to Andy Plumb for correcting this error.)

2005 28 **Formula 1.442 1** page 45,

- the evaluation is now

  $$\frac{\pi}{x}$$

  which is incorrect, it should have been

  $$\frac{pi}{4}\operatorname{sign}x$$

- the range of applicability is now

  $$[0 < x < 2\pi]$$

  which is incorrect, it should have been

  $$(-\pi < x < \pi)$$

29 **Formula 1.624 10**, page 55, the left hand side is now "arctan x"; which is incorrect. The left hand side should
2005 have been "arccot x".

(Thanks to Dave Kasper for correcting this error.)

2001 30 **Formula 1.625 7**, page 56, the formula is now

$$\begin{aligned}\arccos x - \arccos y &= \arccos\left(xy + \sqrt{1-x^2}\sqrt{1-y^2}\right) && [x \geq y]\\ &= \arccos\left(xy + \sqrt{1-x^2}\sqrt{1-y^2}\right) && [x < y]\end{aligned}$$

This is incorrect, there is a minus sign missing from the top expression. The formula should have been

$$\begin{aligned}\arccos x - \arccos y &= \boxed{-}\arccos\left(xy + \sqrt{1-x^2}\sqrt{1-y^2}\right) && [x \geq y]\\ &= \quad\arccos\left(xy + \sqrt{1-x^2}\sqrt{1-y^2}\right) && [x < y]\end{aligned}$$

(Thanks to Filippo Colomo for correcting this error.)

2002 31 **Integral 2.01 6**, page 62, is now

$$\int \cos x\,dx = \boxed{-}\sin x$$

This is incorrect, it should have been:

$$\int \cos x\,dx = \sin x$$

(Thanks to Konstantinos Kyritsis for correcting this error.)

2002 32 **Integral 2.01 8**, page 62, is now

$$\int \frac{1}{\cos^2 x}\,dx = \boxed{-}\tan x$$

This is incorrect, it should have been:

$$\int \frac{1}{\cos^2 x}\,dx = \tan x$$

(Thanks to Frank Harris for correcting this error.)

2002 33 **Integral 2.01 22**, page 62, is now

$$\int \frac{1}{\sinh^2 x}\,dx = \coth x$$

This is incorrect, it should have been:

$$\int \frac{1}{\sinh^2 x}\,dx = \boxed{-}\coth x$$

(Thanks to Frank Harris for correcting this error.)

2002 34 **Integral 2.02 8**, page 63, the constraint is presently "$[n \neq 1]$", which is incorrect. It should have been "$[n \neq -1]$".

(Thanks to Kenneth Ing Shing for correcting this error.)

2001 35 **Integral 2.110 7**, page 66, should be added and should be

$$\int x^a (nx^b + c)^k\,dx = \frac{n^k}{b}\sum_{i=0}^{k} \frac{(-1)^i k!\Gamma\left(\frac{a+1}{b}\right)\left(n^b + \frac{c}{n}\right)^{k-i}}{(k-i)!\Gamma\left(\frac{a+1}{b}+i+1\right)} x^{a+1+ib}$$
$[a,\, b,\, k \geq 0$ are all integers$]$

2005 36 **Integral 2.123**, page 69, the integrand is now "$\frac{1}{xz^5}$" which is incorrect, it shuold have been "$\frac{1}{xz_1^5}$".

(Thanks to Vincent Genot for correcting this error.)

2001 37 **Integral 2.141 2**, page 72, the last term is "$-\arctan x$", which is incorrect. It should have been "$-\arctan(1/x)$".

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 38 **Integral 2.146 3**, page 74, the last "$\frac{k\pi}{n}$" term is too large.

(Thanks to Leslie Green for this correction.)

2002 39 **Page heading**, page 75, is now

Forms containing pairs of binomials $a + bx$ and $\alpha + \beta x$

This is incorrect, it should have been:

Forms containing the binomial $1 \pm x^n$

2005 40 **Integral 2.172**, page 78, The right hand side of the first evaluation (for $\Delta < 0$) is now

$$\frac{-2}{\sqrt{-\Delta}}\,\text{arctanh}\,\boxed{x}\frac{b+2cx}{\sqrt{-\Delta}}$$

This is incorrect, it should have been:

$$\frac{-2}{\sqrt{-\Delta}}\,\text{arctanh}\,\frac{b+2cx}{\sqrt{-\Delta}}$$

(Thanks to Ian Bindloss for this correction.)

2002 41 **Integral 2.242 1**, page 86, the first term of the evaluation of the integral is presently

$$\frac{2\boxed{a}\sqrt{z}}{b}$$

This is incorrect, the "a" should have been an "α". That is

$$\frac{2\boxed{\alpha}\sqrt{z}}{b}$$

(Thanks to M. Antoine for correcting this error.)

2004 42 **Section 2.26**. The expression $\sqrt{a+b+cx^2}$ is incorrect and should have been $\sqrt{a+b\boxed{x}+cx^2}$, this occurs in the following places:

(a) In the table of contents on page vii.

(b) Section 2.26 heading on page 92.

(c) Running heads on page 93 and page 95.

(Thanks to Donald Livesay for correcting this error.)

2002 43 **Integral 2.268**, for $m = 1$, page 96, the expression "bigbigstrut" should not be present.

(Thanks to Steven Johnson for correcting this error.)

2001 44 **Integral 2.269 5**, page 97, The integral now reads:

$$\int \frac{dx}{x^2\sqrt{R^3}} = -\frac{A}{\sqrt{R}}\boxed{+\frac{1}{a^2\Delta\sqrt{R}}\left[\left(3b^2-8ac\right)cx+\left(3b^2-10ac\right)b\right]} - \frac{3b}{2a^2}\int\frac{dx}{x\sqrt{R}}$$

This is incorrect, it should have been:

$$\int \frac{dx}{x^2\sqrt{R^3}} = \frac{A}{\sqrt{R}} - \frac{3b}{2a^2}\int\frac{dx}{x\sqrt{R}}$$

(Thanks to Roger Haagmans for correcting this error.)

2004 45 **Notation for section 2.27**, page 97.

The second representation for I_2 has the constraint "$[a > 0$ and $\boxed{1}c < 0]$". This is incorrect and should have been "$[a > 0$ and $c < 0]$".

(Thanks to Donald Livesay for correcting this error.)

2002 46 **Integral 2.314**, page 104, the evaluation for $ab < 0$ is presently

$$\frac{1}{2m\sqrt{-ab}}\ln\frac{b+e^{mx}\sqrt{-ab}}{b-e^{mx}\sqrt{-ab}}$$

This is incorrect, it should have been:

$$\frac{1}{2m\sqrt{-ab}}\ln\left|\frac{e^{mx}\sqrt{-ab}-|b|}{e^{mx}\sqrt{-ab}+|b|}\right|$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2002 47 **Integral 2.321 2**, page 104, an alternative way to write the evaluation of the integral is as follows

$$e^{ax}\left(\sum_{k=0}^{n}\frac{(-1)^k k!\binom{n}{k}}{a^{k+1}}x^{n-k}\right)$$

(Thanks to Victor H. Moll and George Boros for suggesting this evaluation.)

2001 48 **Integral 2.444 2**, page 122, the evaluation of the integral is now

$$2\boxed{\cos}a \arctan\left(\tanh\frac{x}{2}\tan\frac{a}{2}\right)$$

This is incorrect, it should have been:

$$2\boxed{\operatorname{cosec}}a \arctan\left(\tanh\frac{x}{2}\tan\frac{a}{2}\right)$$

(Thanks to David McKirdy for correcting this error.)

2005 49 **Integral 2.464 25**, page 132, the integrand is now

$$\frac{\tan^4\frac{x}{2}}{\sqrt{a\boxed{=}b\cosh x}}$$

which is incorrect. It should have been

$$\frac{\tan^4\frac{x}{2}}{\sqrt{a\boxed{+}b\cosh x}}$$

(Thanks to Vincent Genot for correcting this error.)

2005 50 **Formula 2.472 5**, page 137, the first summation on the right hand side how starts with $k = 1$; which is incorrect. This summation should have started with $k = 0$. (Thanks to Georg Lohoefer for correcting this error.)

2003 51 **Integral 2.477 6**, page 142, the evaluation includes the term "$[1-(-1)^{n-1}]$"; this is better written as "$[1+(-1)^n]$";

(Thanks to Leslie Green for this correction.)

2005 52 **Integrals 2.549 3** and **2.549 4**, page 167, are missing the constraint "$a > 0$".

(Thanks to Robert A. Padgug for correcting this error.)

2005 53 **Formula 2.558 2**, page 170, the factor in front of the integral on the right hand side is now

$$\left(A - \frac{Bb + Cc}{\boxed{B^2} + c^2}\right)$$

which is incorrect. It should have been

$$\left(A - \frac{Bb + Cc}{\boxed{b^2} + c^2}\right)$$

(Thanks to Christoph Bruegger and Florian Kaempfer for correcting this error.)

2005 54 **Integral 2.584 40**, page 188,

(a) The integrand is now $\frac{\boxed{\sin x}}{\Delta^3}$, which is incorrect. It should be $\frac{\boxed{\sin^2 x}}{\Delta^3}$.

(b) The last term of the evaluation is now $\frac{1}{k'^2}\frac{\boxed{\operatorname{si} x}\cos x}{\Delta}$ which is incorrect. It should be $\frac{1}{k'^2}\frac{\boxed{\sin x}\cos x}{\Delta}$.

(Thanks to Ashok Kumar Singal for correcting this error.)

2002 **55 Integral 2.637 1**, page 213, the second term of the evaluation presently has a $\frac{\sin 3x}{2^{2k+2}}$ term, this is incorrect. This term should have been $\frac{\sin 3x}{3^{2k+2}}$.

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2002 **56 Integral 2.813 1**, page 237, the result is now

$$\operatorname{sign}(a)\left[\boxed{n}\arcsin\frac{x}{|a|}+\sqrt{a^2-x^2}\right]$$

This is incorrect, it should have been

$$\operatorname{sign}(a)\left[\boxed{x}\arcsin\frac{x}{|a|}+\sqrt{a^2-x^2}\right]$$

2001 **57 Integral 3.036**, page 246, is now Formula 3.036 1, the formula is now

$$\begin{aligned}\int_0^\pi f\left(\frac{\sin^2 x}{1+2p\cos x+p^2}\right)dx &= \int_0^\pi f\left(\sin^2 x\right)dx \quad [p^2\boxed{\geq}1];\\ &= \int_0^\pi f\left(\frac{\sin^2 x}{p^2}\right)dx \quad [p^2\boxed{<}1].\end{aligned}$$

This is incorrect, it should have been:

$$\begin{aligned}\int_0^\pi f\left(\frac{\sin^2 x}{1+2p\cos x+p^2}\right)dx &= \int_0^\pi f\left(\sin^2 x\right)dx \quad [p^2\boxed{<}1];\\ &= \int_0^\pi f\left(\frac{\sin^2 x}{p^2}\right)dx \quad [p^2\boxed{\geq}1].\end{aligned}$$

(Thanks to Yuzo Maruyama for correcting this error.)

2003 **58 Integral 3.141 21**, page 264, now has the evaluation

$$\begin{aligned}&\frac{2}{3}\sqrt{a-c}\,[2(b-a)F(\delta,q)+(2a-b-c)E(\delta,q)]\\ &+\frac{2}{3}\boxed{(2c-b-u)}\sqrt{\frac{(b-u)(u-c)}{a-u}}\end{aligned}$$

This is incorrect, it should have been:

$$\begin{aligned}&\frac{2}{3}\sqrt{a-c}\,[2(b-a)F(\delta,q)+(2a-b-c)E(\delta,q)]\\ &+\frac{2}{3}\boxed{(b+c-a-u)}\sqrt{\frac{(b-u)(u-c)}{a-u}}\end{aligned}$$

(Thanks to Gonçalo Tavares for correcting this error.)

2005 **59 Integral 3.141 23**, page 264, is missing an equals sign. The first "+" sign (after the "dx") should be an equals sign (=).

(Thanks to Óttar Ísberg for correcting this error.)

2003 60 **Integral 3.141 30**, page 265, now has the evaluation

$$\frac{2}{3}\boxed{\frac{\sqrt{(a-c)^3}}{b-c}}[(a+c-2b)E(\mu,q)-(a-b)F(\mu,q)]$$
$$+\frac{2}{3}\boxed{\frac{a-c}{b-c}}(u+b-a-c)\sqrt{\frac{(u-a)(u-c)}{u-b}}$$

This is incorrect, it should have been:

$$\frac{2}{3}\boxed{\sqrt{a-c}}[(a+c-2b)E(\mu,q)-(a-b)F(\mu,q)]$$
$$+\frac{2}{3}(u+b-a-c)\sqrt{\frac{(u-a)(u-c)}{u-b}}$$

(Thanks to Gonçalo Tavares correcting this error.)

2002 61 **Integral 3.147 7**, page 272, the upper limit on the integral is now $\boxed{\alpha}$, it should be $\boxed{a}$.
(Thanks to Todd Lee for correcting this error.)

2005 62 **3.169** **Notation**, page 305, the second to last line of the notation now has

$$\boxed{u} = \arcsin\sqrt{\frac{u^2-a^2}{u^2-b^2}}$$

This is incorrect, it should have been

$$\mu = \arcsin\sqrt{\frac{u^2-a^2}{u^2-b^2}}$$

2001 63 **Integral 3.195**, page 313, the constraint is now

$$[a > 0]$$

This is incorrect, it should have been

$$[p \neq 0, \quad a > 0, \quad a \neq 1]$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2004 64 **Integral 3.194 4**, page 313. Part of the constraint is now

$$0 < \mathrm{Re}\,\boxed{\nu} < n+1$$

This is incorrect, it should have been

$$0 < \mathrm{Re}\,\boxed{\mu} < n+1$$

(Thanks to Christoph Gierull correcting this error.)

2002 65 **Integral 3.197 2**, page 314, the evaluation of the integral is now

$$\boxed{u^{\mu+\nu-\lambda}}\mathrm{B}(\lambda-\mu-\nu,\mu)\,{}_2F_1\left(\boxed{-\nu,\lambda-\mu-\nu;\lambda-\nu};-\frac{\beta}{u}\right)$$

This is incorrect. It should have been

$$\boxed{u^{-\lambda}(\beta+u)^{\mu+\nu}}\mathrm{B}(\lambda-\mu-\nu,\mu)\,{}_2F_1\left(\boxed{\lambda,\mu;\lambda-\mu};-\frac{\beta}{u}\right)$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 66 **Integral 3.231 2**, page 318, the integrand is now

$$\frac{x^{p-1}\boxed{-}x^{-p}}{1+x}$$

This is incorrect, it should have been

$$\frac{x^{p-1}\boxed{+}x^{-p}}{1+x}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 67 **Integral 3.234 1**, page 318, the reference is now "BI (55)(11)" which is incorrect, it should have been "BI (5)(11)".

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 68 **Integral 3.241 3**, page 319, the integral should be a principal value integral.

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 69 **Integral 3.241 4**, page 319, the evaluation of the integral is now

$$\frac{1}{\nu p^{n+1}}\left(\frac{p}{q}\right)\frac{\mu}{\nu}\frac{\Gamma\left(\frac{\mu}{\nu}\right)\Gamma\left(1+n-\frac{\mu}{\nu}\right)}{\Gamma(1+n)}$$

This is incorrect, it should have been (the first $\frac{\mu}{\nu}$ should have been an exponent)

$$\frac{1}{\nu p^{n+1}}\left(\frac{p}{q}\right)^{\frac{\mu}{\nu}}\frac{\Gamma\left(\frac{\mu}{\nu}\right)\Gamma\left(1+n-\frac{\mu}{\nu}\right)}{\Gamma(1+n)}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 70 **Integral 3.242 2**, page 320, the left hand side of the integral is now

$$\int_0^\infty\left[\frac{x^2}{x^4+2ax^2+1}\right]^c\left(\frac{x^2+1}{x^{\boxed{6}}+1}\right)\frac{dx}{x^2}$$

This is incorrect, it should have been (the "6" should be a "b"):

$$\int_0^\infty\left[\frac{x^2}{x^4+2ax^2+1}\right]^c\left(\frac{x^2+1}{x^{\boxed{b}}+1}\right)\frac{dx}{x^2}$$

Note that the value of the integral is independent of b.

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 71 **Integral 3.243**, page 320, the evaluation is incorrect, it should have been

$$\frac{\pi}{48\nu}\left[8\operatorname{cosec}(2\rho)+12\operatorname{cosec}(3\rho)-8\operatorname{cosec}\left(2\rho-\frac{4\pi}{3}\right)+8\operatorname{cosec}\left(2\rho-\frac{2\pi}{3}\right)\right.$$
$$\left.-3\operatorname{cosec}\left(\rho-\frac{\pi}{6}\right)\operatorname{cosec}\left(\rho+\frac{\pi}{6}\right)\sec(\rho)\right]\text{ where }\rho=\frac{\mu\pi}{6\nu}.$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 72 **Integral 3.247 1**, page 321, the summation on the right side now has

$$\sum_{k=0}^{\infty} \frac{\xi^k}{(\alpha + kb)\boxed{,}(\alpha + kb + 1) \ldots (\alpha + kb + \boxed{k} - 1)}$$

There is a comma that should not be present and a "k" that should have been an "n". The correct summation is

$$\sum_{k=0}^{\infty} \frac{\xi^k}{(\alpha + kb)(\alpha + kb + 1) \cdots (\alpha + kb + \boxed{n} - 1)}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 73 **Integral 3.248 5**, page 321, is incorrect.

(Thanks to Victor H. Moll and George Boros for identifying this error.)

2001 74 **Integral 3.248 6**, page 321, should be added and should be

$$\int_{-\infty}^{\infty} \frac{dx}{(1+x^2)\sqrt{b+ax^2}} = \begin{cases} \frac{2}{\sqrt{a}} & \text{if } a = b \\ \frac{2}{\sqrt{b-a}} \tan^{-1}\left(\sqrt{\frac{b}{a} - 1}\right) & \text{if } b > a \\ \frac{1}{\sqrt{a-b}} \ln\left(\frac{\sqrt{a}+\sqrt{a-b}}{\sqrt{a}-\sqrt{a-b}}\right) & \text{if } b < a \end{cases}$$

(Thanks to Victor H. Moll and George Boros for suggesting this addition.)

2001 75 **Integral 3.249 8**, page 321, the constraint is now

[integer $n > 1$]

This is incorrect, it should have been

[$n > 1$]

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 76 **Integral 3.259 3**, page 326,

(a) Immediately following the equals sign we now have:

$$= \frac{1}{p}\alpha^{-}\frac{\lambda}{p}B$$

This is incorrect, it should have been:

$$= \frac{1}{p}\alpha^{-\lambda/p}B$$

(b) The expression now ends:

$$1 - \frac{\beta}{\boxed{a}}\Big)$$

This is incorrect, it should have been:

$$1 - \frac{\beta}{\boxed{\alpha}}\Big)$$

(Thanks to Federico Girosi for correcting these errors.)

2002 77 **Integral 3.261 1**, page 326,

(a) the index of summation in the evaluation should be "k", not "h".

(b) the integral should be a principal value integral.

(Thanks to Victor H. Moll and George Boros for correcting these errors.)

2001 78 **Integral 3.267 3**, page 327, should be added and should be

$$\int_0^1 \frac{x^{3n-2}\,dx}{\sqrt[3]{1-x^3}} = \frac{\Gamma\left(n-\frac{1}{3}\right)\Gamma\left(\frac{2}{3}\right)}{3\Gamma\left(n+\frac{1}{3}\right)}$$

(Thanks to Victor H. Moll and George Boros for suggesting this addition.)

2001 79 **Integral 3.275 1**, page 329, the first denominator is presently "$1-x\frac{1}{p}$", which is incorrect. It should have been "$1-x^{1/p}$".

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 80 **Integral 3.277 1**, page 330, the last term in the evaluation is now the Legendre function

$$P^{\frac{\nu+\mu}{2}}_{\frac{\mu}{2}-1}(\beta)$$

which is incorrect. It should have been

$$P^{\nu+\frac{\mu}{2}}_{\frac{\mu}{2}-1}(\beta)$$

(Thanks to Hermann Krebs for correcting this error.)

2001 81 **Integral 3.310**, page 331, the integral is now

$$\int_0^{\infty} e^{\quad -px}\quad dx$$

The spacing is bad in this integral (the "$-px$" is at the ssame height as the upper limit of the integral, when it should have been an exponent), it should have been:

$$\int_0^{\infty} e^{-px}\,dx$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 82 **Integral 3.311 3**, page 331, the evaluation of the integral is now

$$\frac{\pi}{\boxed{q}} \operatorname{cosec} \frac{p\pi}{q}$$

This is incorrect. It should have been

$$\frac{\pi}{\boxed{|q|}} \operatorname{cosec} \frac{p\pi}{q}$$

(Thanks to ViKazuya Yuasa for correcting this error.)

2002 83 **Integral 3.311 10**, page 331, the integrand is presently

$$\frac{e^{-px} - e^{-qx}}{1 \boxed{+} e^{-(p+q)x}}$$

This is incorrect, the integrand should have been

$$\frac{e^{-px} - e^{-qx}}{1 \boxed{-} e^{-(p+q)x}}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2002 84 **Integrals in 3.311**, page 331, the following new integral should be added:

3.311 13 $$\int_0^\infty \frac{e^{-px} + e^{-qx}}{1 + e^{-(p+q)x}} dx = \frac{\pi}{p+q} \operatorname{cosec} \left(\frac{\pi p}{p+q} \right)$$

(Thanks to Victor H. Moll and George Boros for suggesting this addition.)

2002 85 **Integral 3.312 3**, page 332, the evaluation of the integral is now

$$\mathrm{B}(\mu, \nu)\ {}_2F_1(\varrho, \boxed{u}; \mu + \nu; \beta)$$

This is incorrect. It should have been

$$\mathrm{B}(\mu, \nu)\ {}_2F_1(\varrho, \boxed{\mu}; \mu + \nu; \beta)$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 86 **Formula 3.321.1**, page 333, now begins

$$\Phi(u) = \frac{\sqrt{\pi}}{2} \operatorname{erf}(u)$$

This is incorrect, it should have been:

$$\frac{\sqrt{\pi}}{2} \Phi(u) = \frac{\sqrt{\pi}}{2} \operatorname{erf}(u)$$

(Thanks to E. B. Dussan V for correcting this error.)

2005 87 **Integral 3.322 1**, page 333, the constraint for the integral

$$u > 0$$

is not needed and should be removed.

2005 88 **Integral 3.322 3**, page 333, the two minus signs (the first in the exponent in the integrand, the send in the exponent of the evaluation) should be replaced with "$\pm$".

2002 89 **Integral 3.323 1**, page 333, the constraint for the integral

$$[q \neq -2]$$

is not needed and should be removed.

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 90 **Integral 3.323 3**, page 333, the current constraint is

$$\left[|\arg\beta| < \frac{\pi}{4}\right]$$

This is incomplete, it should have been:

$$\left[|\arg\beta| < \frac{\pi}{4}, \qquad |\arg\gamma| < \frac{\pi}{4},\right]$$

(Thanks to Rickard Petersson for correcting this error.)

2002 91 **Integral 3.324 2**, page 334. The integral is missing the constraint "$[b \geq 0]$".

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2002 92 **Integral 3.329**, page 334, the integrand has two variables named "α" that should be the variable "a".

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2002 93 **Integral 3.331 3**, page 334, the evaluation of the integral is now

$$\mathrm{B}(\mu,\nu)\beta^{-\frac{\mu\boxed{-}\nu}{2}} e^{\frac{\beta}{2}} M_{\frac{\nu-\mu}{2},\frac{\nu+\mu-1}{2}}(\beta)$$

This is incorrect. It should have been

$$\mathrm{B}(\mu,\nu)\beta^{-\frac{\mu\boxed{+}\nu}{2}} e^{\beta} M_{\frac{\nu-\mu}{2},\frac{\nu+\mu-1}{2}}(\beta)$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2002 94 **Integral 3.334**, page 335, the last term of the evaluation is now

$$W_{\frac{\nu-2\mu-1}{2},\frac{\nu}{2}}(\beta)$$

This is incorrect. It should have been

$$W_{\frac{\nu-2\mu-1}{2},\boxed{-}\frac{\nu}{2}}(\beta)$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 95 **Integrals 3.338**, page 336, the following new integral should be added (to become 3.338 5)

$$\int_0^{\pi/4} \exp\left[-\sum_{n=0}^{\infty}\left(\frac{\tan^{2n} x}{n+\frac{1}{2}}\right)\right] dx = \ln\sqrt{2}$$

2003 96 **Integral 3.342**, page 336, the summation is now

$$\sum_{k=1}^{\infty} \frac{p^k - 1}{k^k}$$

This is incorrect. It should have been

$$\sum_{k=1}^{\infty} \frac{p^{k\boxed{-1}} - 1}{k^k}$$

(Thanks to Victor H. Moll for correcting this error.)

2005 97 **3.351 2**, page 336. The evaluation contains $\sum_{\boxed{l}=0}^{n}$, which is incorrect, it should have been $\sum_{\boxed{k}=0}^{n}$.

(Thanks to Armando Lemus for correcting this error.)

2005 98 **3.351 8**, page 336, the last term in the evaluation is now

$$-\mu^2 u^2)$$

This is incorrect, it should have been

$$+\mu^2 u^2)$$

2005 99 **Integral 3.369**, page 342, the evaluation not has the term "$e^{\alpha\mu}$" which is incorrect, it should have been "$e^{a\mu}$".

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2003 100 **Integral 3.371**, page 342, the "mu" in the first evaluation should have been a "μ".

(Thanks to Victor H. Moll and George Boros and Leslie Green for correcting this error.)

2001 101 **Integral 3.383 1**, page 343, the evaluation now begins

$$B(\mu,\nu)u^{\boxed{u}+\nu-1}{}_1F_1(\nu;\mu+\nu;\beta u)$$

This is incorrect, the u in the exponent should have been a μ:

$$B(\mu,\nu)u^{\boxed{\mu}+\nu-1}{}_1F_1(\nu;\mu+\nu;\beta u)$$

(Thanks to Cyril-Daniel Iskander for correcting this error.)

2002 102 **Integral 3.383 2**, page 343, the evaluation now begins

$$\sqrt{\pi}\left(\frac{u}{\beta}\right)^{\boxed{u}-\frac{1}{2}}\dots$$

This is incorrect, the u in the exponent should have been a μ:

$$\sqrt{\pi}\left(\frac{u}{\beta}\right)^{\boxed{\mu}-\frac{1}{2}}\dots$$

(Thanks to Henrik Holm for correcting this error.)

2002 103 **Integral 3.383 4**, page 344, the last term of the evaluation is a Whittaker function (W) with an argument of "$\beta\mu$". This is incorrect, the argument should have been "βu".

(Thanks to Mazen Hasna and Jaime Zaratiegui Garcia for correcting this error.)

2005 104 **3.385**, page 345, the last term in the evaluation is now

$$\Phi_1(\nu,\varrho,\lambda+\nu,\boxed{\beta,-\mu})$$

which is incorrect (the last two terms have been switched). This term should have been

$$\Phi_1(\nu,\varrho,\lambda+\nu,\boxed{-\mu,\beta})$$

(Thanks to N. Turkkan for correcting this error.)

2005 105 **3.387 7**, page 347, the last term in the evaluation is now

$$\cdots - Y_{\nu-\frac{1}{2}}(u\boxed{,}\mu)$$

which is incorrect (the comma should not have been there). The correct term is

$$\cdots - Y_{\nu-\frac{1}{2}}(u\mu)$$

(Thanks to Philip Ingenhoven for correcting this error.)

2005 106 **Integral 3.411 12**, page 350, the integrand now has the term "e^{-2nx}" which is incorrect, it should have been "$e^{-(2n-1)x}$".

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 107 **Integral 3.411 13**, page 350, the integrand now has the term "$e^{-(2n-1)x}$" which is incorrect, it should have been "e^{-2nx}".

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 108 **Integral 3.411 18**, page 350, the second evaluation is now

$$(-1)^{n+1}\left(\frac{7}{120}\pi^4\boxed{-}6\sum_{k=1}^{n-1}\frac{(-1)^k}{k^4}\right)$$

which is incorrect. It should have been

$$(-1)^{n+1}\left(\frac{7}{120}\pi^4\boxed{+}6\sum_{k=1}^{n-1}\frac{(-1)^k}{k^4}\right)$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 109 **Integral 3.415 2**, page 352, the integral is presently

$$\int_0^\infty \frac{x\,dx}{(x^2+\beta^2)^2\left(e^{2\pi x}-1\right)} \quad -\frac{1}{8\beta^3}-\frac{1}{4\beta^2}+\frac{1}{4\beta}\psi'(\beta)$$
$$\boxed{=}\frac{1}{4\beta^4}\sum_{k=0}^{\infty}\frac{|B_{2k+2}|}{\beta^{2k}} \qquad [\operatorname{Re}\beta>0]$$

This is incorrect. The first line is missing an equals sign, and the second line is an asymptotic expression. The integral should have been

$$\int_0^\infty \frac{x\,dx}{(x^2+\beta^2)^2\left(e^{2\pi x}-1\right)}\boxed{=}-\frac{1}{8\beta^3}-\frac{1}{4\beta^2}+\frac{1}{4\beta}\psi'(\beta)$$
$$\boxed{\sim}\frac{1}{4\beta^4}\sum_{k=0}^{\infty}\frac{|B_{2k+2}|}{\beta^{2k}} \qquad [\boxed{\text{asymptotic expansion for}}\ \operatorname{Re}\beta>0]$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 110 **Integral 3.415 3**, page 352, the integrand is presently

$$\frac{x}{(x^2\beta^2)\,(e^{\mu x}+1)}$$

This is incorrect, the integrand should have been

$$\frac{x}{\left(x^2\boxed{+}\beta^2\right)(e^{\mu x}+1)}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 111 **Integral 3.435 2**, page 357, the evaluation now contains the term

$$\ln(\beta\mu \boldsymbol{C})$$

which is incorrect. It should have been

$$\ln(\beta\mu)+\boldsymbol{C}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2002 112 **Integral 3.454 1**, page 359, the integrand is presently

$$\frac{xe^{-2nx}}{\sqrt{e^{2x}\boxed{+}1}}$$

This is incorrect, the integrand should have been

$$\frac{xe^{-2nx}}{\sqrt{e^{2x}\boxed{-}1}}$$

(Thanks to Alexis De Vos for correcting this error.)

2001 113 **Integral 3.461 5**, page 360, the evaluation is presently

$$\frac{1}{u}e^{-\mu u^2}-\sqrt{\mu\pi}\left[1-\Phi(\sqrt{\mu\boxed{u}})\right]$$

This is incorrect, it should have been

$$\frac{1}{u}e^{-\mu u^2}-\sqrt{\mu\pi}\left[1-\Phi(\boxed{u}\sqrt{\mu})\right]$$

(Thanks to Damir Juric for correcting this error.)

2001 114 **Integral 3.462 3**, page 361, presently the constraint includes:

$$\operatorname{Re}\beta>0$$

This is incorrect, it should have been:

$$\operatorname{Re}\beta^{\boxed{2}}>0$$

2005 115 **Integral 3.462 9**, page 361, and **Integral 3.478 1**, page 361. These two integrals are identical; the references should be combined.

(Thanks to Stefan Neumeier for correcting this error.)

2004 116 **Integral 3.478 3**, page 364. The last term on the first line of the right hand side is now

$$\frac{\nu + n - 1}{n}$$

which is missing a semi-colon. It should have been

$$\frac{\nu + n - 1}{n};$$

2004 117 **Page heading**, page 365, is now

Hyperbolic functions

This is incorrect, it should have been

Exponential of complicated arguments and powers

(Thanks to Federico Girosi for this correction.)

2005 118 **Integral 3.511 8**, page 366, the evaluation is presently an infinite sum; it should have been the number "1".

2005 119 **Integral 3.524 2**, page 371, the integrand now contains "x^{2^m}" which is incorrect, it should have been "x^{2m}". (Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 120 **Integral 3.524 4**, page 371, the integrand now contains "x^{2^m}" which is incorrect, it should have been "x^{2m}". (Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 121 **Integral 3.527 10**, page 374, the evaluation is now

$$\frac{2^{2m}1}{a}\left(\frac{\pi}{a}\right)^{2m}|B_{2m}|$$

This is incorrect, it should have been

$$\frac{2^{2m}-1}{a}\left(\frac{\pi}{a}\right)^{2m}|B_{2m}|$$

(Thanks to Andrzej Staruszkiewicz for correcting this error.)

2005 122 **Integral 3.527 14**, page 374, the integral and its evaluation are now

$$\int_0^\infty x^2 \frac{\sinh \boxed{a} x}{\cosh^2 \boxed{a} x}\, dx = \boxed{\frac{\ln 2}{2a^3}}$$

This is incorrect, it should have been

$$\int_0^\infty x^2 \frac{\sinh x}{\cosh^2 x}\, dx = \boxed{4\boldsymbol{G}}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 123 **Integral 3.527 16**, page 374, should be added and should be

$$\int_0^\infty x^{\mu-1} \frac{\cosh ax}{\sinh^2 ax} dx = \frac{2\Gamma(\mu)\zeta(\mu-1)}{a^\mu}\left(1 - 2^{1-\mu}\right)$$

(Thanks to Victor H. Moll and George Boros for suggesting this addition.)

2005 124 **Integral 3.532 1**, page 375, for the evaluation of the integral the first term is shown as

$$\frac{(2n)!}{a+b}$$

This is incorrect, it should have been:

$$\frac{2\,n!}{a+b}$$

(Thanks to Sanjib Sabhapandit for correcting this error.)

2005 125 **Integral 3.533 4**, page 376, the leading term in the integrand is now x^{2^m+1} which is incorrect. It should have been x^{2m+1}.

(Thanks to Andrzej Staruszkiewicz for correcting this error.)

2005 126 **Integral 3.547 10**, page 378, the evaluation presently begins

$$\frac{1}{4}\beta^{\boxed{\frac{\nu-1}{2}}}\Gamma(\mu-\nu)\cdots$$

This is incorrect, it should have been:

$$\frac{1}{4}\beta^{\boxed{\frac{2\nu-1}{2}}}\Gamma(\mu-\nu)\cdots$$

Additionally, the evaluation can be simplified to the following

$$\frac{1}{2}\beta^{\nu}\Gamma(\mu-\nu)W_{-\mu,\nu-\frac{1}{2}}(4\beta)$$

Finally, the reference has an incorrect evaluation.

(Thanks to Tobias Kramer for correcting this error.)

2005 127 **Integral 3.551 5**, page 380, the evaluation is now

$$\frac{1}{2}\left[\ln\frac{\beta+\gamma}{\beta-\gamma}\,\mathrm{Ei}(\gamma-\beta)-\mathrm{Ei}(-\gamma-\beta)\right]$$

which is incorrect. It should have been

$$\frac{1}{2}\left[\ln\frac{\beta+\gamma}{\beta-\gamma}\boxed{+}\mathrm{Ei}(\gamma-\beta)-\mathrm{Ei}(-\gamma-\beta)\right]$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 128 **Integral 3.552 6**, page 381, the evaluation now includes the term

$$\sum_{k=1}^{n}\frac{1}{(2k\boxed{+}1)^4}$$

which is incorrect. It should have been

$$\sum_{k=1}^{n}\frac{1}{(2k\boxed{-}1)^4}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 129 **Integral 3.553 2**, page 381, the integrand now has the term

$$\sinh^2 \frac{\boxed{\pi}}{2}$$

which is incorrect. It should have been

$$\sinh^2 \frac{\boxed{x}}{2}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 130 **Integral 3.554 1**, page 381, the integrand now has the term

$$\operatorname{sech} s$$

which is incorrect. It should have been

$$\operatorname{sech} x$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

131 **Section 3.617**, page 388, the complete elliptic functions "E" and "K" should be shown as ***E*** and ***K*** (in 16 places).

2005 (Thanks to Leslie Green for this correction.)

2002 132 **Integrals in 3.621**, page 389, the following integrals should be added:

3.621 6 $$\int_0^{\pi/2} \sqrt{\sin x}\, dx = \sqrt{\frac{2}{\pi}} \left(\Gamma\left(\frac{3}{4}\right)\right)^2$$

3.621 7 $$\int_0^{\pi/2} \frac{dx}{\sqrt{\sin x}} = \frac{\left(\Gamma\left(\frac{1}{4}\right)\right)^2}{2\sqrt{2\pi}}$$

(Thanks to Victor H. Moll and George Boros for suggesting these additions.)

2002 133 **Integral 3.622.4**, page 389, has, as part of the evaluation,

$$(-1)^{n\boxed{+1}}$$

This is incorrect, it should have been:

$$(-1)^n$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 134 **Integral 3.624 3**, page 390, the evaluation / integrand/ constraint is now

$$\frac{(2n-1)!!}{2 \cdot (2n)!!}$$

which is incorrect. It should have been

$$\pi \frac{(2n)!!}{2^{2n+1}(n!)^2}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 **135 Integral 3.628**, page 390, the evaluation now contains the term

$$\frac{1}{2p\pi}$$

which is incorrect. It should have been

$$\frac{1}{2p\sqrt{\pi}}$$

It is also noted that the evaluation can be written as $\frac{1}{2\sqrt{\pi}}\Gamma(p)\Gamma(\frac{1}{2}-p)$.

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 **136 Integral 3.653 2**, page 398, the integrand is now

$$\boxed{2}\frac{\tan^{\mu} x\, dx}{1 - a\sin^2 x}$$

which is incorrect. It should have been

$$\frac{\tan^{\mu} x\, dx}{1 - a\sin^2 x}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2004 **137 Integrals 3.670**, page 402, the following new integrals should be added

1. $$\int_0^{\pi} \sqrt{a \pm b\cos\phi}\, d\phi = \int_{-\pi/2}^{\pi/2} \sqrt{a \pm b\sin\phi}\, d\phi = 2\sqrt{a+b}K\left(\sqrt{\frac{2b}{a+b}}\right) \qquad [a > b > 0]$$

2. $$\int_0^{\pi} \frac{d\phi}{\sqrt{a \pm b\cos\phi}} = \int_{-\pi/2}^{\pi/2} \frac{d\phi}{\sqrt{a \pm b\sin\phi}} = \frac{2}{\sqrt{a+b}}E\left(\sqrt{\frac{2b}{a+b}}\right) \qquad [a > b > 0]$$

(Thanks to Leslie Green for suggesting these additions.)

2003 **138 Integral 3.715 15**, page 414, the integrand contains (in part) "tgx"; this should be "$\tan x$".

(Thanks to Leslie Green for this correction.)

2001 **139 Integral 3.722**, page 417,

(a) **Integral 3.722 2**, the right side is

$$\pi e^{ia\boxed{b}}$$

This is incorrect, it should have been (replace "b" with "β"):

$$\pi e^{ia\boxed{\beta}}$$

(b) **Integral 3.722 8**, the right side is

$$-\pi e^{ia\boxed{b}}$$

This is incorrect, it should have been (replace "b" with "β", and multiply by "i"):

$$-\boxed{i}\pi e^{ia\boxed{\beta}}$$

2002 140 **Page heading**, page 429, is now

Trigonometric functions and powers

This is incorrect, it should have been:

Trigonometric functions and algebraic functions

(Thanks to Federico Girosi for correcting this error.)

2003 141 **Integral 3.757 1** and **Integral 3.757 2**, page 429, both should have the constaint "$[a > 0]$".

(Thanks to Leslie Green for this correction.)

2001 142 **Integral 3.761 6**, page 430, the two occurrences of $u + 1$ in the evaluation of the integral should be $\mu + 1$.

(Thanks to Kun-Lin Kuo for correcting this error.)

2001 143 **Integral 3.768 3**, page 433, the integral is presently

$$\begin{aligned}\int_0^1 (1-x)^\nu \sin(ax)\,dx &= \frac{1}{a} - \frac{\Gamma(\nu+1)}{a^{\nu+1}} C_\nu(a) = a^{-\nu-1/2} s_{\nu+1/2,1/2}(a) \\ &= \sum_{n=0}^{\infty} \frac{(-1)^n a^{\nu+2n}}{\Gamma(\nu+2n+1)}\end{aligned}$$

This is incorrect, it should have been (the second line should not have been present)

$$\int_0^1 (1-x)^\nu \sin(ax)\,dx = \frac{1}{a} - \frac{\Gamma(\nu+1)}{a^{\nu+1}} C_\nu(a) = a^{-\nu-1/2} s_{\nu+1/2,1/2}(a)$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 144 **Integral 3.786 2**, page 442, the constraint is presently

$$\left[\boxed{0} > 0, \quad b > 0, \quad a \neq b\right]$$

This is incorrect, it should have been

$$\left[\boxed{a} > 0, \quad b > 0, \quad a \neq b\right]$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 145 **Integral 3.786 3**, page 442, the first constraint is presently

$$[a < b \leq a]$$

This is incorrect, it should have been

$$[a < b \leq 0]$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 146 **Integral 3.812 4**, page 447, the second constraint is presently

$$[0 < a^2 < 1]$$
$$[\text{divergent if } a = 0]$$

This is incorrect, it should have been

$$[\boxed{\text{principal value for}}\ 0 < a^2 < 1]$$
$$[\text{divergent if } a = 0]$$

2004 147 **Integral 3.812 6**, page 448, the entry is presently

$$\int_0^\pi \frac{x \sin 2x\, dx}{a^2 - \cos^2 x} = \pi \ln\left\{4(1-a^2)\right\} \qquad [0 \le a^2 < 1]$$
$$= 2\pi \ln\left[2\left(1 - a^2 + a\sqrt{a^2-1}\right)\right] \qquad [a^2 > 1]$$

This is incorrect, it should have been

$$\int_0^\pi \frac{x \sin 2x\, dx}{a^2 - \cos^2 x} = \pi \ln\left\{4(1-a^2)\right\} \qquad [\boxed{\text{principal value for}}\ 0 \le a^2 < 1]$$
$$= 2\pi \ln\left[2\left(1 - a^2 + a\sqrt{a^2-1}\right)\right] \qquad [a^2 > 1]$$
$$\boxed{[\text{divergent if } |a| = 1]}$$

(Thanks to David Mckirdy for correcting this error.)

2001 148 **Integral 3.812**, page 448, the following new integrals should be added

12 $$\int_0^\pi \frac{x \sin x \cos x}{a - \sin^2 x}\, dx = -\pi \ln 2 + \pi \ln\left[1 + \sqrt{\frac{a-1}{a}}\right] \qquad [a > 1]$$

13 $$\int_0^{\pi/2} \ln\left(a - \sin^2 x\right)\, dx = -\pi \ln 2 + i\pi \ln \arccos \sqrt{a} \qquad [0 < a < 1]$$

14 $$PV \int_0^{\pi/2} \ln\left(\left|a - \sin^2 x\right|\right)\, dx = -\pi \ln 2 \qquad [0 < a < 1]$$

15 $$PV \int_0^{\pi/2} \ln\left(\left|a - \cos^2 x\right|\right)\, dx = -\pi \ln 2 \qquad [0 < a < 1]$$

2004 149 **Integral 3.832 27**, page 462. The evaluation of the integral is now

$$\frac{\pi}{2} e^{-3a} \cosh^m a$$

This is incorrect, it should have been

$$\frac{\pi}{2} e^{-3\boxed{m}a} \cosh^m a$$

(Thanks to David Mckirdy for correcting this error.)

2001 150 **Integral 3.836 2**, page 464, there should be an equals sign after the "dx" in the first line.

2001 151 **Integral 3.836 6**, page 464, the constraint is presently

$$[a \leq -1 \boxed{or} a \geq 1, n \geq 2; \text{ for } n = 1 \text{ see } \mathbf{3.74} \ 2]$$

This is incorrect, it should have been

$$[a \leq -1 \ \boxed{\text{or}} \ a \geq 1, n \geq 2; \text{ for } n = 1 \text{ see } \mathbf{3.741} \ 2]$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2003 152 Various integrals between **3.845 1** (page 466) and **3.849 2** (page 469). Some of these integral evaluations are functions evaluated at specific numerical values; numerical approximations may be useful.

INTEGRAL	PAGE	NUMERICAL APPROXIMATION
3.842 1	page 466	1.31102877714605991
3.843 3	page 467	1.31102877714605991
3.845 1	page 467	0.59907011736779610
3.845 2	page 468	0.59907011736779610
3.845 3	page 468	0.71195865977826380
3.847	page 468	0.71195865977826380
3.849 1	page 469	0.177989664944565950
3.849 2	page 469	0.149767529341949026
3.849 3	page 469	0.71195865977826380

(Thanks to Leslie Green for these corrections.)

2001 153 **Integrals 3.851 1–3.851 4**, page 469. None of these integrals are correct, even as Cauchy principal values.

(Thanks to Erik Talvila for identifying these errors.)

2001 154 **Integral 3.882 5**, page 479, the integrand is presently

$$\int_0^\infty \cos\left(a \tan^2 x\right) \cot x \boxed{\frac{x}{dx} b^2 + x^2}$$

This is incorrect, it should have been

$$\int_0^\infty \cos\left(a \tan^2 x\right) \cot x \boxed{\frac{x\, dx}{b^2 + x^2}}$$

(Thanks to Mel Schopper for correcting this error.)

2001 155 **Integral 3.884**, page 479, the evaluation and the constraint are presently

$$\cdots = \cos a\sqrt{|b|} + \exp\left(-a\sqrt{|b|}\right) \qquad [a > 0]$$

This is incorrect, they should have been

$$\cdots = \pi\left[\exp\left(-a\sqrt{-b}\right) + \exp\left(-a\sqrt{b}\right)\right] \qquad [a > 0, \quad \text{Im}\,(b) \neq 0]$$

2002 156 **Integral 3.892 1**, page 479, the integrand now has "*sin*" when it should have had "sin".

(Thanks to Marcus Spradlin for correcting this error.)

2005 157 **Integral 3.895 10**, page 482, The constraint is not needed.

(Thanks to Joel G. Heinrich for correcting this error.)

2002 158 **Integral 3.911 3**, page 484, the integrand is presently

$$\frac{\sin ax}{e^x - 1} e \frac{x}{2} dx \qquad \boxed{[a > 0]}$$

This is incorrect, it should have been (note the proper location of the exponent, and the removal of the constraint)

$$\frac{\sin ax}{e^x - 1} e^{x/2} dx$$

(Thanks to Mel Schopper and Jason M. Gallaspy for correcting this error.)

2003 159 **Integral 3.937 1**, page 491, the evaluation of the integral is now, in part

$$\ldots \left\{ (A + iB) \boxed{\tfrac{m}{2}} I_m \left(\sqrt{C - iD} \right) - (A - iB) \boxed{\tfrac{m}{2}} I_m \left(\sqrt{C + -iD} \right) \right\}$$

This is incorrect, it should have been (the term $\frac{m}{2}$ should be an exponent, not a multiplicative factor)

$$\ldots \left\{ (A + iB)^{\boxed{m/2}} I_m \left(\sqrt{C - iD} \right) - (A - iB)^{\boxed{m/2}} I_m \left(\sqrt{C + -iD} \right) \right\}$$

(Thanks to Sylvie Lorthois for correcting this error.)

2001 160 **Integral 3.944 5**, page 492, the evaluation of the integral is now

$$\frac{\Gamma(\mu)}{(\beta^2 + \delta^2) \boxed{\frac{\mu}{2}}} \sin \left(\mu \arctan \frac{\delta}{\beta} \right)$$

This is incorrect, it should have been (the term $\frac{\mu}{2}$ should be an exponent, not a multiplicative factor)

$$\frac{\Gamma(\mu)}{(\beta^2 + \delta^2)^{\boxed{\mu/2}}} \sin \left(\mu \arctan \frac{\delta}{\beta} \right)$$

(Thanks to Mel Schopper for correcting this error.)

2002 161 **Integral 3.951 4**, page 496, should be removed. The same integral is in **3.951 2**, where the evaluation is correct.

2001 162 **Integral 3.954 1**, page 498,

(a) the first term in the evaluation of the integral is now

$$-\frac{\pi}{4} e^{\beta\gamma} \boxed{2}$$

This is incorrect, it should have been (the "2" should have been an exponent, not a multiplicative factor)

$$-\frac{\pi}{4} e^{\beta\gamma^{\boxed{2}}}$$

(b) In the second "Φ" function, the first variable "Γ" should be a "γ"

(Thanks to David J. Masiello for correcting this error.)

2001 163 **Integral 3.954 2**, page 499, the first term in the evaluation of the integral is now

$$\frac{\pi}{4} e^{\beta\gamma \boxed{2}}$$

This is incorrect, it should have been (the "2" should have been an exponent, not a multiplicative factor)

$$\frac{\pi}{4} e^{\beta\gamma^{\boxed{2}}}$$

2005 164 **Integral 3.981 11**, page 505, The constraint can be simplified to $\beta \neq 0$.

(Thanks to Joel G. Heinrich for correcting this error.)

2005 165 **Integral 3.981 12**, page 505,

(a) Both the integrand and the evaluation contain the expression "$2m - 1$", which is incorrect. In both cases this should have been "$2m + 1$".

(b) The constraint is not needed.

(Thanks to Joel G. Heinrich for correcting this error.)

2001 166 **Integral 3.982 3**, page 505, the integrand is presently

$$\frac{\sin^2 x \cos ax}{\boxed{\sin^2 hx}} \, dx$$

This is incorrect, it should have been

$$\frac{\sin^2 x \cos ax}{\boxed{\sinh^2 x}} \, dx$$

(Thanks to Mel Schopper for correcting this error.)

2005 167 **Integral 4.113 9**, page 512, the evaluation currently has the form

$$\sum_{k=0}^{\infty} \cdots \frac{(k + \frac{1}{2})^{\boxed{2}} e^{-ab} - \ldots}{\ldots}$$

This is incorrect, it should have been

$$\sum_{k=0}^{\infty} \cdots \frac{(k + \frac{1}{2}) e^{-ab} - \ldots}{\ldots}$$

2005 168 **Integral 4.113 10**, page 513, the second line of the evaluation now begins

$$\boxed{+} \frac{e^{-\frac{a}{2}}}{2m+1} \cdots$$

This is incorrect, it should have been

$$-\frac{e^{-\frac{a}{2}}}{2m+1} \cdots$$

2001 169 **Integral 4.133 1** and **Integral 4.133 2**, page 519, the evaluations of these integrals presently have an argument to the exponential function that is not clear. They should have been written as

$$4.133\ 1 \mapsto \sqrt{\pi\gamma}\exp\left[\gamma\left(\beta^2 - a^2\right)\right]\sin(2a\beta\gamma)$$
$$4.133\ 2 \mapsto \sqrt{\pi\gamma}\exp\left[\gamma\left(\beta^2 - a^2\right)\right]\cos(2a\beta\gamma)$$

(Thanks to Mel Schopper for making these clarifications.)

2005 170 **Integral 4.216**, page 524, the following new integral should be added (to become 4.216 2)

$$\int_0^{1/e} \frac{dx}{\sqrt{-\log x - 1}} = \frac{\sqrt{\pi}}{e}$$

(Thanks to Victor H. Moll and George Boros for suggesting this addition.)

2005 171 **Integrals 4.222**, page 525, the following new integral should be added (to become 4.222 8)

$$\int_0^{\infty} \ln(1+ax)x^b e^{-x}\,dx = \sum_{m=0}^{b} \frac{b!}{(b-m)!}\left[\frac{(-1)^{b-m-1}}{a^{b-m}} e^{1/a}\,\mathrm{Ei}\left(-\frac{1}{a}\right) + \sum_{k=1}^{b-m}\frac{(k-1)!}{(-a)^{b-m-k}}\right]$$

with the constraint: “$b > 0$, an integer”.

2005 172 **Integrals 4.224**, page 526, following new integral should be added (to become 4.224 12 (1))

$$\int_0^{\pi} \ln(1 + a\cos x)^2\,dx = \begin{cases} 2\pi\ln\left(\frac{1+\sqrt{1-a^2}}{2}\right) & a^2 \le 1 \\ \pi\ln\frac{a^2}{4} & a^2 \ge 1 \end{cases}$$

2005 173 **Integral 4.224 14**, page 526, the evaluation is now

$$2\pi\ln[\max(|a|,|b|)]$$

which is incorrect. It should have been

$$2\boxed{n}\pi\ln[\max(|a|,|b|)]$$

(Thanks to Velimir Labinac for correcting this error.)

2005 174 **Integral 4.227 12**, page 528, the integrand and the evaluation are both incorrect. The present entry

$$\int_0^{\pi/2}\boxed{\ln^{(1-\tan x)}}\,dx = \frac{\pi}{2}\boxed{e}\ln 2 - 2\boldsymbol{G}$$

should have been

$$\int_0^{\pi/2}\boxed{\ln(1-\tan x)^2}\,dx = \frac{\pi}{2}\ln 2 - 2\boldsymbol{G}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 175 **Integral 4.227 16**, page 529, the integrand for each integral is now

$$\ln^{\boxed{2}}(\cot x - \tan x)$$

which is incorrect. It should have been

$$\ln(\cot x - \tan x)^{\boxed{2}}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 176 **Integral 4.229 2**, page 529, the entry is presently

$$\int_0^1 \frac{dx}{\ln\left(\ln\frac{1}{x}\right)} = \boxed{0}$$

This is incorrect, it should have been

$$\boxed{PV}\int_0^1 \frac{dx}{\ln\left(\ln\frac{1}{x}\right)} = \boxed{PV\int_0^\infty \frac{e^{-u}}{\ln u}\,du = -0.154479\ldots}$$

(Thanks to Motohiko Saitoh for correcting this error.)

2005 177 **Integral 4.229 4**, page 530, the exponent appearing in the integrand is now "$u-1$", which is incorrect. It should have been "$\mu - 1$".

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 178 **Integral 4.231 5**, page 530, the constraint is presently

$$[0 < a < 1]$$

This range can be enlarged to

$$[0 < a]$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 179 **Integral 4.231 19** and **Integral 4.231 20**, page 531, the following new integrals should be added

$$\int_0^1 \frac{x\ln x}{1+x}\,dx = -1 + \frac{\pi^2}{2}$$

and

$$\int_0^1 \frac{(1-x)\ln x}{1+x}\,dx = 1 - \frac{\pi^2}{6}$$

(Thanks to Victor H. Moll and George Boros for these additions.)

2005 180 **Integral 4.234 1**, page 532, the evaluation is now "$\ln 2$" which is incorrect, it should have been "$\frac{\boldsymbol{G}}{2} - \frac{\pi}{8}$".

(Thanks to Victor H. Moll and Ronald Posey for correcting this error.)

2005 181 **Integral 4.235 3**, page 532, in the numerator of the integrand is the term "x^{n-2}" which is incorrect, it should have been "x^{n-3}".

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 182 **Integral 4.251 5**, page 535, the integrand is now

$$\ln x \frac{x^{2n}}{dx} 1 + x$$

which is incorrect. It should have been

$$\ln x \frac{x^{2n}}{1+x}\,dx$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 183 **Integral 4.251 6**, page 535, the integrand is now

$$\ln x \frac{x^{2n-1}}{dx} 1 + x$$

which is incorrect. It should have been

$$\ln x \frac{x^{2n-1}}{1+x}\, dx$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 184 **Integral 4.253 4**, page 536, the limits on the integrand are now "$\int_0^1$" which are incorrect, the limits should have been "$\int_0^\infty$".

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 185 **Integral 4.261 8**, page 538, the evaluation can be written more simply as "$\frac{8\sqrt{3}\pi^3 + 351\zeta(3)}{486}$".

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 186 **Integral 4.261 13**, page 538, the second evaluation has the leading term "$\frac{7}{2}\zeta(3)$" which is incorrect, it should have been "$\frac{7}{4}\zeta(3)$".

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 187 **Integral 4.267 1**, page 541, the integrand is now

$$(\boxed{4} - x)^p \frac{1}{\ln x}$$

which is incorrect. It should have been

$$(\boxed{1} - x)^p \frac{1}{\ln x}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 188 **Integral 4.267 17**, page 541, this entry has the additional information

(see also **3.524** 27)

which is incorrect; this phrase should be removed.

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 189 **Integrals 4.269 1, 3**, page 545, both of these integrals has a "$cdot$" which should be removed.

(Thanks to Sean A. Irvine for correcting this error.)

2005 190 **Integral 4.2689 2**, page 545, the integrand is now

$$\frac{1}{\sqrt{\ln \frac{1}{x} cdot (1+x)^2}}$$

which is incorrect. It should have been

$$\frac{1}{\sqrt{\ln \frac{1}{x} (1+x^2)}}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 191 **Integral 4.272 7**, page 547, t the exponent of $\frac{1}{2}$ should be smaller in the integrand.

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 192 **Integral 4.272 18**, page 548, the evaluation is now incorrect; it should have been

$$\Gamma\left(3-\frac{1}{n}\right)\left(p^{\frac{1}{n}-3}-q^{\frac{1}{n}-3}\right)$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 193 **Integral 4.293 6**, page 554, the evaluation now contains the term

$$\left[\pi-\sum_{k=0}^{n}\frac{(-1)^k}{2k+1}\right]$$

which is incorrect. It should have been

$$\left[\frac{\pi}{4}-\sum_{k=0}^{n}\frac{(-1)^k}{2k+1}\right]$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 194 **Integral 4.293 8**, page 554, the evaluation is now

$$-\frac{1}{\mu}\left[\psi(\mu+1)-\psi(1)\right]$$

while this is correct, it might be better written as

$$-\frac{1}{\mu}\left[\psi(\mu+1)+\boldsymbol{C}\right]$$

(Thanks to Victor H. Moll and George Boros for improving this result.)

2005 195 **Integral 4.293 11**, page 554, the evaluation is now

$$\frac{\pi}{\sin\mu\pi}\left[\boldsymbol{C}+\psi(1-\mu)\right]$$

which is incorrect. It should have been

$$\boxed{-}\frac{\pi}{\sin\mu\pi}\left[\boldsymbol{C}+\psi(1-\mu)\right]$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 196 **Integral 4.295 22**, page 557, the evaluation is now

$$\frac{\pi}{qr}\ln\frac{q+pr}{\boxed{q}}$$

which is incorrect. It should have been

$$\frac{\pi}{qr}\ln\frac{q+pr}{\boxed{r}}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 197 **Integral 4.314 1**, page 562, the evaluation and constraint are presently

$$= \sum_{k=1}^{\infty} \frac{a^k}{k} \ln \frac{p+k}{q+k} \boxed{+ \ln \tfrac{p}{q}}$$

$$[\boxed{a > 0}, \quad p > 0, \quad q > 0]$$

This is incorrect, it should have been

$$= \sum_{k=1}^{\infty} \boxed{(-1)^{k+1}} \frac{a^k}{k} \ln \frac{p+k}{q+k}$$

$$[\boxed{|a| < 1}, \quad p > 0, \quad q > 0]$$

(Thanks to Joel G. Heinrich for correcting this error.)

2005 198 **Integral 4.322 1**, page 564, the current formulae are

$$\int_0^{\pi} \boxed{\ln \sin xx}\, dx = \frac{1}{2} \int_0^{\pi} \ln \cos^2 x \, dx = -\frac{\pi^2}{2} \ln 2$$

The first integrand is correct, but awkwardly written. The second integrand is incorrect. The formulae should have been

$$\int_0^{\pi} \boxed{x \ln \sin x}\, dx = \frac{1}{2} \int_0^{\pi} \boxed{x} \ln \cos^2 x \, dx = -\frac{\pi^2}{2} \ln 2$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 199 **Integral 4.323 1**, page 565, the current integrand is

$$x \ln \tan^2$$

which is incorrect. It should have been

$$x \ln \tan^2 \boxed{x}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 200 **Integral 4.342 3**, page 568,

(a) The integrand contains the term "$[\ln(shx) - \ln x]$" which is incorrect; it should be "$[\ln(\sinh x) - \ln x]$".

(b) The middle term of the evaluation should be "$\frac{1}{\mu}$" and not the "$\frac{1}{2\mu}$" currently shown.

(Thanks to Michael Thorwart and Victor H. Moll for correcting this error.)

2001 201 **Integral 4.359 2**, page 572, the constraint is presently

$$[\boxed{\mathrm{Re}\,\mu > 0}, \quad p > 0, \quad q > 0]$$

This is incorrect, it should have been

$$[p > 0, \quad q > 0]$$

(Thanks to Joel G. Heinrich for correcting this error.)

2005 202 **Integral 4.375 1**, page 575, the evaluation is now

$$\boldsymbol{G}\boxed{+}\frac{\pi}{2}\ln 2$$

which is incorrect. It should have been

$$\boldsymbol{G}\boxed{-}\frac{\pi}{2}\ln 2$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 203 **Integral 4.426 1**, page 591, the integrand is presently

$$\ln\frac{b^2+x^2}{c^2+x^2}\sin ax\boxed{x}\,dx$$

This is correct, but could be made more clear by writing it in the form:

$$\boxed{x}\ln\frac{b^2+x^2}{c^2+x^2}\sin ax\,dx$$

(Thanks to Ben Yu-Kuang Hu for correcting this error.)

2004 204 **4.531 10**, page 598. The integrand is now

$$\frac{x\arctan x}{1-x^4}$$

This is incorrect, it should have been:

$$\frac{x\,\mathrm{arccot}\,x}{1-x^4}$$

(Thanks to David Mckirdy for correcting this error.)

2005 205 **Section 4.601 2**, page 604, in two cases, the "chi" should have been a "χ".

(Thanks to Martin Gotz for correcting this error.)

2005 206 **Integral 4.615**, page 606, the integrand on the right is now

$$f(r\cos\varphi r,\sin\varphi)\,r$$

which is incorrect. It should have been (the second r is in the wrong place)

$$f(r\cos\varphi,r\sin\varphi)\,r$$

(Thanks to Theodoros Theodoulidis for correcting this error.)

2005 207 **Integral 4.616**, page 607, the integrand on the right is now

$$f(r\cos\varphi r,\sin\varphi)\,r$$

which is incorrect. It should have been (the second r is in the wrong place)

$$f(r\cos\varphi,r\sin\varphi)\,r$$

(Thanks to Theodoros Theodoulidis for correcting this error.)

2002 **208 Integral 4.641 1**, page 612. The integrand is presently

$$e^{p_1 x_1 p_2 x_2 + \cdots + p_n x_n}$$

This is incorrect, it should have been:

$$e^{p_1 x_1 \boxed{+} p_2 x_2 + \cdots + p_n x_n}$$

(Thanks to Kazuhiko Seki for correcting this error.)

2002 **209 Integral 5.122**, page 617. The evaluation is presently $\dfrac{[\mathbf{E}(x,k)]^2}{2}$; which is incorrect. It should have been $\dfrac{[E(x,k)]^2}{2}$.

(Thanks to Timo Hakulinen for correcting this error.)

2002 **210 5.13 Jacobian elliptic functions**, page 619. There is a comment at the end of this section that begins

By using formulas **5.131**, we can reduce the integrals ...

This is incorrect, it should have been:

By using formulas **5.131**, we can reduce the integrals $\boxed{\text{, for } m \neq -1,}$ ...

(Thanks to Leslie Green for correcting this error.)

2004 **211 Integral 5.139**, page 621. The evaluation of the integral is now

$$\ln snu$$

This is incorrect, it should have been:

$$\ln \operatorname{sn} u$$

(Thanks to Leslie Green for correcting this error.)

2002 **212 Integral 5.41**, page 624, the "a" appearing in the evaluation should be an "α".

(Thanks to Jaime Zaratiegui Garcia for correcting this error.)

2001 **213 Integral 5.52 2**, page 624, is now

$$\int x^{-p\boxed{+1}} Z_p(x)\,dx = -x^{-p\boxed{+1}} Z_{p\boxed{+1}}(x)$$

This is incorrect, it should have been

$$\int x^{-p} Z_{p\boxed{+1}}(x)\,dx = -x^{-p} Z_p(x)$$

(Thanks to Reinhold Wannemacher for correcting this error.)

2005 **214 Integrals in 6.148**, page 627, the following new integral should be added:

6.148 3 $$\int_0^1 \frac{\mathbf{E}(k)}{1+k}\,dk = 1$$

(Thanks to Andras Vanyolos and Balazs Dora for suggesting this addition.)

2002 215 **Integrals 6.162. 3, 6.162 4**, page 628. These integrands are now

$$\int_0^\infty e^{-ax}\vartheta_2\left(\frac{(1+b)\pi}{2l}\,\middle|\,\frac{i\pi x}{l^2}\right)\,dx$$
$$\int_0^\infty e^{-ax}\vartheta_3\left(\frac{(1+b)\pi}{2l}\,\middle|\,\frac{i\pi x}{l^2}\right)\,dx$$

These is incorrect, they should have been (the "$1+b$" term should have been "$l+b$"):

$$\int_0^\infty e^{-ax}\vartheta_2\left(\frac{(l+b)\pi}{2l}\,\middle|\,\frac{i\pi x}{l^2}\right)\,dx$$
$$\int_0^\infty e^{-ax}\vartheta_3\left(\frac{(l+b)\pi}{2l}\,\middle|\,\frac{i\pi x}{l^2}\right)\,dx$$

(Thanks to Olivier Espinosa and Edgardo Stockmeyer for correcting these errors.)

2005 216 **Integral 6.164** page 628, the integrand is presently

$$\left[\boxed{\vartheta_4\left(0|ie^{2x}|+\vartheta_2(0)ie^{2x}\right)}-\vartheta_3\left(0\mid ie^{2x}\right)\right]e^{\frac{1}{2}x}\cos(ax)$$

This is incorrect, it should have been:

$$\left[\boxed{\vartheta_4\left(0\mid ie^{2x}\right)+\vartheta_2\left(0\mid ie^{2x}\right)}-\vartheta_3\left(0\mid ie^{2x}\right)\right]e^{\frac{1}{2}x}\cos(ax)$$

(Thanks to Filippo Colomo for correcting this error.)

2001 217 **Integral 6.254 2**, page 636, the right hand side is now

$$\frac{\pi}{2}\ln\frac{a}{b}\qquad[a>0,\quad b>0]$$

This is incorrect, it should have been

$$\frac{\pi}{2}\ln\frac{a}{b}\boxed{H(a-b)}\qquad\left[a>0,\quad b>0\boxed{,\quad H(x)\text{ is the Heaviside step function}}\right]$$

(Thanks to Yannis Kohninos for correcting this error.)

2005 218 **Integrals 6.271.2, 6.272, 6.273.1, 6.273.2, 6.274**, page 638, in each of these five integrals the function "χ" should have been the function "chi" .

(Thanks to Martin Gotz for correcting these errors.)

2001 219 **Page heading**, page 651, is now incorrect. It should have been "The function $\psi(x)$".

(Thanks to Federico Girosi for correcting this error.)

2005 220 **Integral 6.512 1**, page 653, the subsidary condition in square brackets is now

$\boxed{b>a}$ For $\boxed{a<b}$, the positions ...

This is incorrect. It should have been

$\boxed{b<a}$ For $\boxed{a>b}$, the positions ...

(Thanks to Stefan Llewellyn Smith for correcting this error.)

2001 221 **Integrals 6.522.17 and Integrals 6.522.18**, page 660. In both cases there is an integral on the left hand side (LHS) and an integral on the right hand side (RHS). The integrand on the LHS is a function of t and the integrand on the RHS is a function of x. The error is that the integral on the LHS has a dx when it should have a dt, and the integral on the RHS has a dt when it should have a dx.

(Thanks to Marcus Spradlin for correcting this error.)

2005 222 **Integral 6.532 1**, page 663,

(a) the evaluation of this integral is now

$$\frac{\pi[\mathbf{J}_\nu(a) - J_\nu(a)]}{a\sin(\nu\pi)}$$

which is incorrect. It should have been

$$= \frac{i}{a}[S_{0,\nu}(ia) - e^{-i\nu\pi/2}K_\nu(a)] = \frac{1}{a}[is_{0,\nu}(ia) + \frac{\pi}{2}\sec\frac{\nu\pi}{2}I_\nu(a)]$$

(b) The reference ET II 340 (2) should be deleted.

(Thanks to George Fikioris for correcting these errors.)

2002 223 **Integral 6.533 3**, page 663.

(a) The integrand is now

$$[J_0(ax) - 1]J_1(bx)\frac{dx}{\boxed{x}}$$

This is incorrect, it should have been:

$$[J_0(ax) - 1]J_1(bx)\frac{dx}{\boxed{x^2}}$$

(Thanks to E. B. Dussan V for correcting this error.)

(b) The integral **6.533 3.b** should be added:

$$\int_0^\infty [J_0(ax) - 1]J_1(bx)\frac{dx}{x} = \begin{cases} \frac{b}{2a}\ {}_2F_1\left(\frac{1}{2}, \frac{1}{2}; 2; \frac{b^2}{a^2}\right) - 1 & [0 < b < a] \\ \frac{2}{\pi}\,\mathbf{E}\left(\frac{a^2}{b^2}\right) - 1 & [0 < a < b] \end{cases}$$

(Thanks to Denis Golosov for suggesting this correct evaluation of 6.533 3.)

2002 224 **Integral 6.554 5**, page 667,

(a) The evaluation is presently

$$\frac{\left(\frac{1}{2}a\right)^\nu\sqrt{\boxed{2}\pi}}{(2k)^{2\nu}\Gamma(\nu+\frac{1}{2})}J_\nu(ak)K_\nu(ak)$$

This is incorrect, the evaluation should have been

$$\frac{\left(\frac{1}{2}a\right)^\nu\sqrt{\pi}}{(2k)^{2\nu}\Gamma(\nu+\frac{1}{2})}J_\nu(ak)K_\nu(ak)$$

(b) The constraint is presently

$$[a > 0, \qquad \boxed{k > 0}, \qquad \operatorname{Re}\nu - \frac{1}{2}]$$

This is incorrect, the constraint should have been

$$[a > 0, \qquad \boxed{|\arg(k)| < \tfrac{\pi}{4}}, \qquad \operatorname{Re}\nu\boxed{>} - \frac{1}{2}]$$

(Thanks to Rami Mehrem for correcting this error.)

2005 225 **Integral 6.565 8**, page 671, the following constraint should be added: "$\operatorname{Re} k > 0$".

(Thanks to George Fikioris for correcting this error.)

2001 226 **Integral 6.574 3** and the text after it, page 675, is missing. They should have been:

$$3.\quad \int_0^\infty J_\nu(\alpha t) J_\mu(\beta t) t^{-\lambda}\,dt = \frac{\beta^\mu \Gamma\left(\frac{\nu+\mu-\lambda+1}{2}\right)}{2^\lambda \alpha^{\mu-\lambda+1}\Gamma\left(\frac{\nu-\mu+\lambda+1}{2}\right)\Gamma(\mu+1)} \times F\left(\frac{\nu+\mu-\lambda+1}{2}, \frac{-\nu+\mu-\lambda+1}{2}; \mu+1; \frac{\beta^2}{\alpha^2}\right)$$

$$[\operatorname{Re}(\nu+\mu-\lambda+1) > 0, \quad \operatorname{Re}\lambda > -1, \quad 0 < \beta < \alpha]$$

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If $\mu-\nu+\lambda+1$ (or $\nu-\mu+\lambda+1$) is a negative integer, the right hand side of equation **6.754** 1. (or **6.574** 3.) vanishes. The cases in which the hypergeometric function F in **6.754** 3. (or **6.574** 1.) can be reduced to an elementary function are then especially important.

(Thanks to Marcus Spradlin for correcting this error.)

2005 227 **Integral 6.575 1**, page 675, the constraint is now

$[\operatorname{Re}\mu > \operatorname{Re}(\nu+1) > 0]$

which is incorrect. It should have been

$[\operatorname{Re}(\nu+1) > \operatorname{Re}\mu > -1]$

2001 228 **Formula 6.576 2**, page 676, The numerator of the first line of the result now has

$$\boxed{2^\nu} b^\nu \Gamma\left(\nu + \frac{1-\lambda}{2}\right)$$

This is incorrect, it should have been:

$$\boxed{a^\nu} b^\nu \Gamma\left(\nu + \frac{1-\lambda}{2}\right)$$

(Thanks to Marcus Spradlin for correcting this error.)

2001 229 **Interals 6.578 6, 6.578 7, 6.578 8, 6.578 10, 6.578 11**, pages 677–678, have confused some u's with μ's and v's with ν's. (Each integrand uses ν and μ, each corrected evaluation uses ν, μ, v, and u. The constraints for each *define* u and v in terms of ν and μ.)

(a) **Interal 6.578 6**

The end of the integral and the beginning of the constraints are

$$\ldots \left(\boxed{\mu^2} - 1\right)^{-\frac{1}{2}\mu - \frac{1}{4}} Q^{\mu+\frac{1}{2}}_{\nu-\frac{1}{2}}(\boxed{\mu})$$
$$[2bc\boxed{\mu} = a^2 + b^2 + c^2, \qquad \ldots$$

This should have been

$$\ldots \left(\boxed{u^2} - 1\right)^{-\frac{1}{2}\mu - \frac{1}{4}} Q^{\mu+\frac{1}{2}}_{\nu-\frac{1}{2}}(\boxed{u})$$
$$2bc\boxed{u} = a^2 + b^2 + c^2 \qquad [\ldots$$

(b) **Interal 6.578 7**

The end of the integral and the beginning of the constraints are

$$\ldots \left(\boxed{\nu^2}+1\right)^{-\frac{1}{2}\mu-\frac{1}{4}} Q^{\mu+\frac{1}{2}}_{\nu-\frac{1}{2}}(i\boxed{\nu})$$
$$2ac\boxed{\nu} = b^2 - a^2 + c^2 \qquad [\ldots$$

This should have been

$$\ldots \left(\boxed{v^2}+1\right)^{-\frac{1}{2}\mu-\frac{1}{4}} Q^{\mu+\frac{1}{2}}_{\nu-\frac{1}{2}}(i\boxed{v})$$
$$2ac\boxed{v} = b^2 - a^2 + c^2 \qquad [\ldots$$

(c) **Interal 6.578 8**

The second and third evaluations of the integral, and the constraint are

$$= \ldots (\sinh\boxed{\mu})^{\mu-\frac{1}{2}} \ldots Q^{\frac{1}{2}-\mu}_{\nu-\frac{1}{2}}(\cosh\boxed{\mu})$$
$$= \ldots (\sin\boxed{\nu})^{\mu-\frac{1}{2}} \ldots P^{\frac{1}{2}-\mu}_{\nu-\frac{1}{2}}(\cos\boxed{\nu})$$
$$[2bc\cosh\boxed{\mu} = a^2 - b^2 - c^2, \qquad 2bc\cos\boxed{\nu} = b^2 + c^2 - a^2, \qquad \ldots$$

This should have been

$$= \ldots (\sinh\boxed{u})^{\mu-\frac{1}{2}} \ldots Q^{\frac{1}{2}-\mu}_{\nu-\frac{1}{2}}(\cosh\boxed{u})$$
$$= \ldots (\sin\boxed{v})^{\mu-\frac{1}{2}} \ldots P^{\frac{1}{2}-\mu}_{\nu-\frac{1}{2}}(\cos\boxed{v})$$
$$2bc\cosh\boxed{u} = a^2 - b^2 - c^2, \qquad 2bc\cos\boxed{v} = b^2 + c^2 - a^2, \qquad [\ldots$$

(d) **Interal 6.578 10**

The end of the integral and the beginning of the constraints are

$$= \frac{\ldots}{2^{\frac{2}{3}}(ab)^{\nu+1}\left(\boxed{\mu^2}-1\right)^{\frac{1}{2}\nu+\frac{1}{4}}} P^{-\nu-\frac{1}{2}}_{\mu-\frac{1}{2}}(\boxed{\mu})$$
$$[2ab\boxed{\mu} = a^2 + b^2 + c^2, \qquad \ldots$$

This should have been

$$= \frac{\ldots}{2^{\frac{2}{3}}(ab)^{\nu+1}\left(\boxed{u^2}-1\right)^{\frac{1}{2}\nu+\frac{1}{4}}} P^{-\nu-\frac{1}{2}}_{\mu-\frac{1}{2}}(\boxed{u})$$
$$2ab\boxed{u} = a^2 + b^2 + c^2, \qquad [\ldots$$

(e) **Interal 6.578 11**

The end of the integral and the beginning of the constraints are

$$= \frac{(ab)^{-\nu-1}c^{\nu}e^{-(\nu+\frac{1}{2})\pi i}Q^{\nu+\frac{1}{2}}_{\mu-\frac{1}{2}}(\boxed{\mu})}{\sqrt{2\pi}\left(\boxed{\mu^2}-1\right)^{\frac{1}{2}\nu+\frac{1}{4}}} \qquad 2ab\boxed{\mu} = a^2 + b^2 + c^2$$

This should have been

$$= \frac{(ab)^{-\nu-1}c^{\nu}e^{-(\nu+\frac{1}{2})\pi i}}{\sqrt{2\pi}\left(\boxed{u^2}-1\right)^{\frac{1}{2}\nu+\frac{1}{4}}} Q^{\nu+\frac{1}{2}}_{\mu-\frac{1}{2}}(\boxed{u})$$
$$2ab\boxed{u} = a^2 + b^2 + c^2 \qquad [\ldots$$

(Thanks to Tommi J. Dufva for correcting these errors.)

2002 230 **Integral 6.592 1**, page 682, on the third line of the evaluation, the expression "$\dfrac{1}{2}$" should have appeared smaller, as "$\frac{1}{2}$".

2002 231 **Integral 6.592 2**, page 682, on the first and second line of the evaluation, the expressions "$\frac{1}{2}$" should have appeared smaller, as "$\tfrac{1}{2}$".

2001 232 **Integral 6.592 3**, page 682, the constraint is presently

$$[a > 0, \quad 0 < \operatorname{Re}\mu < \frac{\boxed{1}}{4} - \operatorname{Re}\lambda]$$

This is incorrect, it should have been

$$[a > 0, \quad 0 < \operatorname{Re}\mu < \frac{\boxed{3}}{4} - \operatorname{Re}\lambda]$$

(Thanks to Luis Alvarez-Ruso and Nicolao Fornengo for correcting this error.)

2003 233 **Integral 6.613**, page 689, the integrand is now

$$e^{-\boxed{x^2}} J_{\nu+\frac{1}{2}}\left(\frac{x^2}{2}\right)$$

This is incorrect. It should have been

$$e^{-\boxed{xz}} J_{\nu+\frac{1}{2}}\left(\frac{x^2}{2}\right)$$

(Thanks to Sabino Chavez-Cerda for correcting this error.)

2001 234 **Integral 6.647 3**, page 703, there is an "a" on the right hand side that must be an "α".

(Thanks to Albert Groenenboom for correcting this error.)

2002 235 **Integral 6.673 3**, page 713, the following new integral should be added

$$\int_0^{\pi/2} [(\cos x) I_0(a\cos x) + I_1(a\cos x)]\, dx = \frac{e^a - 1}{a}$$

2005 236 **Integral 6.726 4**, page 730, the constraint now includes "$c > 0$", which is incorrect. This part of the constraint should be replaced with "c is real".

(Thanks to Man Sik Park for correcting this error.)

2002 237 **Integral 6.731 1**, page 732, the reference appears as "$ETII356(41)a$", which is incorrect. It should have appeared as "ET II 356(41)a".

2005 238 **Integral 6.736 1**, page 733, the integrand is now

$$x^{-1/2} \sin\cos(4a\sqrt{x})\, J_0(x)$$

which is incorrect. It should have been

$$x^{-1/2} \sin\boxed{x}\cos(4a\sqrt{x})\, J_0(x)$$

(Thanks to Theodoros Theodoulidis for correcting this error.)

2004 239 **Integral 6,797 4**, page 745, the evaluation of this integral has a first term of $2^{\nu-1}$. This is incorrect, the first term should have been $2^{\lambda-1}$.

(Thanks to Stefan Fredenhagen for correcting this error.)

2002 240 **Integral 7.243 5**, page 786, the restriction "$\alpha > 0$" should be added.

(Thanks to William S. Price for correcting this error.)

2003 241 **Integral 7.323 2**, page 791, the integrand is now

$$C_n^\nu \left(\cos\psi\cos\psi' + \sin\psi\sin\psi'\cos\varphi(\sin\varphi)^{2\nu-1}\,d\varphi\right)$$

This is incorrect, the final parenthesis is in the wrong place. It should have been:

$$C_n^\nu \left(\cos\psi\cos\psi' + \sin\psi\sin\psi'\cos\varphi\right)(\sin\varphi)^{2\nu-1}\,d\varphi$$

(Thanks to Sten Herlitz for correcting this error.)

2002 242 **Integral 7.388 6**, page 799. The evaluation of the integrand is presently

$$2^n(-1)^m\sqrt{\frac{\pi}{\boxed{2}}}n!b^{2m+1}e^{-\frac{b^2}{4}}L_n^{2m+1}\left(\frac{b^2}{2}\right)$$

This is incorrect, the result needs to be divided by $\sqrt{2}$. Hence, the correct evaluation is

$$2^{n\boxed{-1}}(-1)^m\sqrt{\pi}n!b^{2m+1}e^{-\frac{b^2}{4}}L_n^{2m+1}\left(\frac{b^2}{2}\right)$$

(Thanks to Joseph A. Biello for correcting this error.)

2004 243 **Integral 7.414 1**, page 802. The limits on the integral are presently

$$\int_{\boxed{0}}^\infty$$

This is incorrect, it should have been:

$$\int_{\boxed{y}}^\infty$$

(Thanks to Aba Teleki for correcting this error.)

2005 244 **Section 7.43**, page 806. A new section should be added:

7.43 A complete system of orthogonal step functions

Let N denote the positive integers 1, 2, ... and

$$s_j(x) = (-1)^{\lfloor 2jx \rfloor} \qquad \text{for } j \in N$$
$$c_j(x) = (-1)^{\lfloor 2jx+1/2 \rfloor} \qquad \text{for } j \in 0+N$$

where $\lfloor z \rfloor$ denotes the integer part of z. Thus, $c_j(z)$ and $s_j(z)$ have minimal period j^{-1} and manifest even and odd symmetry about $x = 1/2$, respectively; these are discrete analogues of $\cos 2\pi jx$ and $\sin 2\pi jx$. Furthermore, for $j \in N$ let $\underline{j}$ denotes its odd part. Then, for all j and $k \in N$,

$$\int_0^1 s_j(x)s_k(x)\,dx = \begin{cases} \frac{(j,k)}{[j,k]} & \text{if } \frac{j}{\underline{j}} = \frac{k}{\underline{k}} \\ 0 & \text{otherwise} \end{cases}$$
$$\int_0^1 c_j(x)c_k(x)\,dx = \begin{cases} (-1)^{(\underline{j}+\underline{k})/2+1}\frac{(j,k)}{[j,k]} & \text{if } \frac{j}{\underline{j}} = \frac{k}{\underline{k}} \\ 0 & \text{otherwise} \end{cases}$$

where (j,k) denotes the greatest common factor and $[j,k]$ denotes their least common multiple.

2005 245 **Integral 7.512 7**, page 807, the evaluation of the integral is now

$$\frac{\Gamma(\gamma)\Gamma(\delta-\gamma)}{\Gamma(\delta)}(1-\zeta)^{\boxed{2\alpha-\delta}}F(\alpha,\beta;\delta;z+\zeta-z\zeta)$$

This is incorrect, it should have been

$$\frac{\Gamma(\gamma)\Gamma(\delta-\gamma)}{\Gamma(\delta)}(1-\zeta)^{\boxed{\alpha+\beta-\delta}}F(\alpha,\beta;\delta;z+\zeta-z\zeta)$$

(Thanks to Miguel A. Sanchis-Lozano for correcting this error.)

2005 246 **Integral 7.522 1**, page 808, the last term in the evaluation constraint is now

$$E(\alpha,\beta,\gamma\boxed{;}\delta:\lambda)$$

which is incorrect. It should have been

$$E(\alpha,\beta,\gamma\boxed{:}\delta:\lambda)$$

(Thanks to Chun Kin Au Yeung for correcting this error.)

2004 247 **Integral 7.623 6**, page 818. The integrand is now

$$(x-1)^{\mu-1}\boxed{x^{\lambda-\frac{1}{2}}}e^{-\frac{1}{2}ax}W_{k,\lambda}(ax)$$

which is incorrect. It should have been:

$$(x-1)^{\mu-1}\boxed{x^{-\lambda-\frac{1}{2}}}e^{-\frac{1}{2}ax}W_{k,\lambda}(ax)$$

(Thanks to Steven H. Simon for correcting this error.)

2001 248 **Integral 7.642**, page 822, the evaluation of the integral now contains the term "$y^{2\alpha-1}$" which is incorrect. It should have been "$|y|^{2a-1}$".

(Thanks to Julian Cheng for correcting this error.)

2001 249 **Integral 7.644 1**, page 823, the integral is now shown as "$\int^{\infty}$" which is missing the lower limit, it should have been "$\int_{\boxed{0}}^{\infty}$".

(Thanks to David J. Masiello for correcting this error.)

2005 250 **Integral 7.694**, page 835, the evaluation of the integral is now

$$\frac{2\pi(\alpha\beta)^{1/2}}{\cosh\varrho}\exp[-(\alpha+\beta)\tanh\varrho]J_{2\nu}\left(\frac{2\alpha^{1/2}\beta^{1/2}}{\cosh\varrho}\right)$$

This is incorrect. It should have been

$$\pi\sqrt{\alpha\beta}[\Gamma(2\nu+1)]^2\operatorname{sech}\varrho\exp[-\frac{1}{2}(\alpha+\beta)\tanh\varrho]J_{2\nu}\left(\sqrt{\alpha\beta}\operatorname{sech}\varrho\right)$$

(Thanks to Marcus Spradlin for correcting this error.)

2004 251 **Integral 7.722 3**, page 835, the evaluation of the integral is now

$$\boxed{2^{-\frac{1}{2}\nu-1}}\Gamma(\nu)\sin\frac{1}{4}\pi\nu$$

which is incorrect. It should have been

$$\boxed{2^{-\frac{1}{2}\nu}}\Gamma(\nu)\sin\frac{1}{4}\pi\nu$$

(Thanks to Steven H. Simon for correcting this error.)

2002 252 **Section 8.110 3**, page 851. The last line is now

> Elliptic integrals from 0 to $\frac{\pi}{2}$ are called *complete elliptic integrals*.

This could have been better stated as:

> Elliptic integrals from 0 to 1 in the **8.110 1** formulation (or from 0 to $\frac{\pi}{2}$ in the **8.110 2** formulation) are called *complete elliptic integrals*.

(Thanks to Leslie Green for this correction.)

2002 253 **Formula 8.111 4**, page 852. The second definition of $\Pi(\varphi, n, k)$ is now

$$\frac{\int_0^{\sin\varphi} dx}{(1-nx^2)\sqrt{(1-x^2)(1-k^2x^2)}}$$

This is incorrect, is should have been

$$\int_0^{\sin\varphi} \frac{dx}{(1-nx^2)\sqrt{(1-x^2)(1-k^2x^2)}}$$

(Thanks to Tomohiro Shirai for correcting this error.)

2001 254 **Section 8.112**, page 852. The last line is now

$$\boldsymbol{K}(\equiv \boldsymbol{K}(k)), \qquad \boldsymbol{K}'(\equiv \boldsymbol{K}'(k)), \qquad \boxed{\boldsymbol{E}'}(\equiv \boldsymbol{E}(k)), \qquad \boxed{\boldsymbol{K}'}(\equiv \boldsymbol{E}'(k))$$

This is incorrect, it should have been:

$$\boldsymbol{K}(\equiv \boldsymbol{K}(k)), \qquad \boldsymbol{K}'(\equiv \boldsymbol{K}'(k)), \qquad \boxed{\boldsymbol{E}}(\equiv \boldsymbol{E}(k)), \qquad \boxed{\boldsymbol{E}'}(\equiv \boldsymbol{E}'(k))$$

(Thanks to Gerard P. Michon for correcting this error.)

2005 255 **Formula 8.113 1**, page 852, the present reference includes "WH" which should have been "WH 499."
2005 (Thanks to Leslie Green for this correction.)

2005 256 **Formula 8.124 1**, page 855, the present reference is "WH" which should have been "WH 499, WH 502."
(Thanks to Leslie Green for this correction.)

2005 257 **Table 8.127**, page 856, the entry in the second column, in the fourth data line, is now

$$-k' \tan\varphi$$

This is incorrect (it is missing a factor of i), it should have been

$$-ik' \tan\varphi$$

2002 258 **Section 8.130 1**, page 857. The first line presently has "$[m, n$integers$]$"; it should have been "$[m, n$ integers$]$".
(Thanks to Leslie Green for this correction.)

2004 259 **Formula 8.145 1**, page 858. The last term on the first line is now

$$-\frac{1 + 135k^2 + 135\boxed{k^2} + k^6}{7!}u^7$$

This is incorrect, it should have been:

$$-\frac{1 + 135k^2 + 135\boxed{k^4} + k^6}{7!}u^7$$

(Thanks to Leslie Green for correcting this error.)

2001 260 **Section 8.146**, page 858, the definition of q is presently

$$q = e^{-\frac{\pi \boxed{k}'}{K}}$$

This is incorrect (the k should have been in upper case):

$$q = e^{-\frac{\pi \boxed{K}'}{K}}$$

(Thanks to Wes Harker for correcting this error.)

2003 261 **Section 8.146 footnote** page 858, is missing the definition for τ, which is given implicitly by

$$q = e^{\pi i \tau}$$

(Thanks to Leslie Green for this correction.)

262 **Formula 8.146 1**, **Formula 8.146 2**, and **Formula 8.146 9**, all on page 859, the numerator of the summands is
2004 now

$$q^{n-\dfrac{1}{2}}$$

This is incorrect. It should have been

$$q^{n-\frac{1}{2}}$$

(Thanks to Leslie Green for correcting these errors.)

2003 263 **Formula 8.146 1** through **Formula 8.146 4**, page 859, the reference WH would be better given as WH 511 a. (Thanks to Leslie Green for these corrections.)

2004 264 **Formula 8.146 4**, page 859. The left hand side ofhte formula is now

$$amu$$

This is incorrect, it should have been:

$$\mathrm{am}\, u$$

(Thanks to Leslie Green for correcting this error.)

2003 265 **Formula 8.146 20**, page 860, the left hand side is now

$$\ln sn\, u$$

This is incorrect. It should have been

$$\ln \mathrm{sn}\, u$$

(Thanks to Leslie Green for this correction.)

2003 266 **Formula 8.146 23** through **Formula 8.146 25**, page 860, the denominators all include

$$\cos \frac{\pi u}{\mathbf{K}}$$

which is too large typographicaly. It should have been

$$\cos \tfrac{\pi u}{\mathbf{K}}$$

Additionally, the reference “WH 508 a” could be used for these integrals.

(Thanks to Leslie Green for these corrections.)

2001 267 **Formulae 8.153 7–9**, page 864, The equations are presently:

$$7.\ \operatorname{sn}(u, ik) = \frac{1}{\sqrt{1+k^2}} \frac{\operatorname{sn}\left(u\sqrt{1+k^2}\right), k(1+k^2)^{-1/2}}{\operatorname{dn}\left(u\sqrt{1+k^2}\right), k(1+k^2)^{-1/2}}$$

$$8.\ \operatorname{cn}(u, ik) = \frac{\operatorname{sn}\left(u\left(1+k^2\right)\right)^F FFRAC12, k\left(1+k^2\right)^{-1/2}}{\operatorname{dn}\left(u\left(1+k^2\right)\right)^{1/2}, k\left(1+k^2\right)^{-1/2}}$$

$$9.\ \operatorname{dn}(u, ik) = \frac{1}{\operatorname{dn}\left(u\left(1+k^2\right)\right)^F FFRAC12, k\left(1+k^2\right)^{-1/2}}$$

These are incorrect, they should have been:

$$7.\ \operatorname{sn}(u, ik) = \frac{1}{\sqrt{1+k^2}} \frac{\operatorname{sn}\left(u\left(1+k^2\right)^{1/2}, k(1+k^2)^{-1/2}\right)}{\operatorname{dn}\left(u\left(1+k^2\right)^{1/2}, k(1+k^2)^{-1/2}\right)}$$

$$8.\ \operatorname{cn}(u, ik) = \frac{\operatorname{sn}\left(u\left(1+k^2\right)^{1/2}, k\left(1+k^2\right)^{-1/2}\right)}{\operatorname{dn}\left(u\left(1+k^2\right)^{1/2}, k\left(1+k^2\right)^{-1/2}\right)}$$

$$9.\ \operatorname{dn}(u, ik) = \frac{1}{\operatorname{dn}\left(u\left(1+k^2\right)^{1/2}, k\left(1+k^2\right)^{-1/2}\right)}$$

(Thanks to Albert Groenenboom for correcting these errors.)

2001 268 **Formula 8.164 1**, page 866, The “*qquad*” is erroneous and should be replaced by a space.

(Thanks to Albert Groenenboom for correcting this error.)

2005 269 **Text in 8.164 2**, page 866, the second line of 8.164 2 presently has

$$e_1 = \alpha \boxed{=} i\beta$$

which is incorrect. It should have been

$$e_1 = \alpha \boxed{+} i\beta$$

(Thanks to Martin Gotz for correcting this error.)

2002 **270** **Formula 8.180 3**, page 869, the right hand side is presently

$$2\sum_{n=1}^{\infty} q^{\,n\boxed{+}\frac{1}{2}\;\;^{2}} \cos(2n-1)u$$

This is incorrect, it should have been:

$$2\sum_{n=1}^{\infty} q^{\,n\boxed{-}\frac{1}{2}\;\;^{2}} \cos(2n-1)u$$

(Thanks to Filippo Colomo for correcting this error.)

$\boxed{2005}$ **271** **Formula 8.182 9**, page 870, Formula 8.182 9 is the same as formula 8.182 1 and should be removed.

(Thanks to Martin Gotz for correcting this error.)

2005 **272** **Formula 8.194 2**, page 872, the right hand side of the formula now contains '$\Theta'_{(a)}$', which is incorrect. It should have been "$\Theta'(a)$".

(Thanks to Jerome Benoit for correcting this error.)

$\boxed{2005}$ **273** **Section 8.199(1)**, page 874, Section 8.199(1) is identical to section 8.181 (on page 869) and should be removed.

(Thanks to Martin Gotz for correcting this error.)

2005 **274** **Formula 8.211 2**, page 875, the limit is now

$$\lim_{e\to+0}$$

which is incorrect. It should have been

$$\lim_{\varepsilon\to 0+}$$

(Thanks to Stefan Kramer for correcting this error.)

2002 **275** **Formula 8.221 2**, page 878, the left hand side is now "χx", which is incorrect. It should have been "chi x".

2002 **276** **Section heading 8.25**, page 880, is now

> The probability integral, the Fresnel integrals $\boxed{\Phi(x),}$ $S(x)$, $C(x)$, the error function $\operatorname{erf}(x)$, and the complementary error function $\operatorname{erfc}(x)$

This is incorrect, it should have been

> The probability integral $\boxed{\Phi(x),}$, the Fresnel integrals $S(x)$, $C(x)$, the error function $\operatorname{erf}(x)$, and the complementary error function $\operatorname{erfc}(x)$

2001 **277** **Formula 8.250 1**, page 880, the formula is presently

$$\Phi(x) = \frac{2}{\sqrt{\pi}}\int_0^x e^{-t^2}\,dt \qquad \text{also called the error function and denoted by } \operatorname{erf}(x)$$

This is incorrect, it should have been:

$$\operatorname{erf}(x) = \frac{2}{\sqrt{\pi}}\int_0^x e^{-t^2}\,dt \qquad \text{called the error function}$$

(Thanks to S. Tabachnik for correcting this error.)

2001 278 **Formula 8.250 4**, page 880, the formula is presently

$$\text{erfc}(x) = 1 - \text{erf}(x) = 1 - \Phi(x)$$

This is incorrect, it should have been:

$$\text{erfc}(x) = 1 - \text{erf}(x)$$

2005 279 **Formula 8.253 1**, page 811, the formula now begins

$$\boxed{\Phi(x)} = \frac{2}{\sqrt{\pi}} e^{-x^2} \boxed{x_1} \ldots$$

which is incorrect. It should have been

$$\boxed{\text{erf}(x)} = \frac{2}{\sqrt{\pi}} e^{-x^2} \boxed{x} \ldots$$

(Thanks to Klaus Rottbrand for correcting this error.)

2001 280 **Formula 8.256 5**, page 882, the second plus (+) sign, the one just before the integral, should be replaced with an equals (=) sign.

(Thanks to David J. Masiello for correcting this error.)

2004 281 **Formula 8.258 5**, page 883. The integral is now an indefinte integal, "$\int$", which is incorrect. It should have been the definite integral "$\int_0^\infty$".

(Thanks to Youngsun Kim for correcting this error.)

2005 282 **Integral 8.312 11**, page 884, The evaluation of the integral is now

$$\Gamma(\boxed{z}) \cos \alpha x$$

which is incorrect. It should have been

$$\Gamma(\boxed{x}) \cos \alpha x$$

(Thanks to Florian Baumann for correcting this error.)

2001 283 **Formula 8.315 1**, page 885, the side comment is now

[For $\boxed{\boldsymbol{C}}$ see **8.310** 2]

This is incorrect, it should have been:

[For $\boxed{C}$ see **8.310** 2]

(Thanks to Laurent Berger for correcting this error.)

2002 284 **Formula 8.321 2**, page 885, in the formula for d_n the terms "c_{k+1}" should be "s_{k+1}'.

(Thanks to Olivier Espinosa for correcting this error.)

2001 285 **Formula 8.322**, line 1, page 886, the right hand side is now

$$e^{-\mathbf{C}z}\frac{1}{z}\prod_{k=1}^{\infty}\frac{e^{\boxed{\frac{z}{k}}}}{1+\frac{z}{k}}$$

This is incorrect, it should have been:

$$e^{-\mathbf{C}z}\frac{1}{z}\prod_{k=1}^{\infty}\frac{e^{\boxed{z/k}}}{1+\frac{z}{k}}$$

(Thanks to Laurent Berger for correcting this error.)

2001 286 **Formula 8.325 2**, page 886, the right hand side is now

$$\prod_{k=1}^{\infty}\left[\left(1-\frac{x}{z+k}\right)e\frac{x}{k}\right]$$

This is incorrect, it should have been:

$$\prod_{k=1}^{\infty}\left[\left(1-\frac{x}{z+k}\right)e^{x/k}\right]$$

(Thanks to Laurent Berger for correcting this error.)

2005 287 **Integral 8.326**, page 886, the constraint is now "$[x, r$ real", which is incorrect; it should have been "$[x, y$ real". (Thanks to Angelo Melino for correcting this error.)

2001 288 **Formula 8.341 2**, page 888, the constraint is now

$$\left[\ldots \text{ and } \arctan w = \int_0^{\boxed{\omega}} \frac{du}{1+u^2} \text{ is taken} \ldots \text{the } \boxed{\text{w}}\text{-plane}\right]$$

This is incorrect, it should have been (a "ω" and a "w" should each have been a "w"):

$$\left[\ldots \text{ and } \arctan w = \int_0^{\boxed{w}} \frac{du}{1+u^2} \text{ is taken} \ldots \text{the } \boxed{w}\text{-plane}\right]$$

(Thanks to Laurent Berger for correcting this error.)

2001 289 **Formula 8.342 1**, second line, page 889, we have the term

$$\ln\left(\frac{\pi\boxed{2}}{\sin \pi z}\right)$$

This is incorrect, it should have been

$$\ln\left(\frac{\pi\boxed{z}}{\sin \pi z}\right)$$

(Thanks to Laurent Berger for correcting this error.)

2001 290 **Formula 8.350 2**, page 890, we presently have

$$\Gamma(\alpha, x) = \int_{\boxed{0}}^{\infty} e^{-t} t^{\alpha-1}\, dt$$

This is incorrect, it should have been:

$$\Gamma(\alpha, x) = \int_{\boxed{x}}^{\infty} e^{-t} t^{\alpha-1}\, dt$$

(Thanks to Laurent Berger and Henrik Holm for correcting this error.)

2003 291 **Formula 8.356 1**, page 891, we presently have

$$\boxed{\nu}(\alpha+1, x) = \alpha\, \gamma(\alpha, x) - x^{\alpha} e^{-x}$$

This is incorrect, it should have been:

$$\boxed{\gamma}(\alpha+1, x) = \alpha\, \gamma(\alpha, x) - x^{\alpha} e^{-x}$$

(Thanks to Frank Harris correcting this error.)

2003 292 **Formula 8.356 6**, page 892, we presently have

$$\Gamma(\alpha)\Gamma(\alpha+n, x) - \Gamma(\alpha+n)\Gamma(\alpha, x) = \Gamma(\alpha+n)\gamma(\alpha, x) - \Gamma(\alpha)\boxed{\Gamma(\alpha+n, x)}$$

This is incorrect, it should have been:

$$\Gamma(\alpha)\Gamma(\alpha+n, x) - \Gamma(\alpha+n)\Gamma(\alpha, x) = \Gamma(\alpha+n)\gamma(\alpha, x) - \Gamma(\alpha)\boxed{\gamma(\alpha+n, x)}$$

(Thanks to Frank Harris correcting this error.)

2001 293 **Formula 8.359 4**, page 892, we presently have

$$\boxed{\Gamma}\left(\tfrac{1}{2}, x^2\right) = \sqrt{\pi}\Phi(x)$$

This is incorrect, it should have been:

$$\boxed{\gamma}\left(\tfrac{1}{2}, x^2\right) = \sqrt{\pi}\Phi(x)$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2001 294 **Formula 8.380 7**, page 898, the integral is missing a "dt."

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2002 295 **Formula 8.401**, page 900, the sentence

(also called Neumann functions and often written $Y_\nu(z)$)

is incorrect, it should have been:

(also called Neumann functions and often written $N_\nu(z)$)

(Thanks to Adrian A. Dragulescu for correcting this error.)

2005 296 **Formula 8.403 1**, page 900, the constraint now contains "for [non-integral] $\nu, \ldots$" which is incorrect. It should have been "for [non-integer] $\nu, \ldots$"

(Thanks to Klaus Rottbrand for correcting this error.)

2005 297 **Formula 8.406 3**, page 901, the formula is now preceded by "For integral ν" which is incorrect. It should have been "For integer ν".

(Thanks to Klaus Rottbrand for correcting this error.)

2003 298 **Page heading**, page 901, is now

Integral representations of the functions $J_\nu(z)$ and $N_\nu(z)$

This is incorrect, it should have been:

Definitions

(Thanks to Leslie Green for this correction.)

2004 299 **Text**, page 901. The last line of text now ends

letter Z instead of the letters J, N, $H^{(1)}$, and $H^{(2)}$.

This is incorrect, it should have been:

letter Z instead of the letters J, Y, $H^{(1)}$, and $H^{(2)}$.

(Thanks to Stuart Walsh for this correction.)

2005 300 **Formulae 8.411 1 and 8.411 3**, page 902. The first line is missing an equals sign.

2005 301 **Formula 8.432 6**, page 907, the integrand on the right hand side is now

$$\frac{e^{-t-\frac{z2}{4t}}}{t^{\nu+1}}$$

which is incorrect. It should have been (note the power of z):

$$\frac{e^{-t-\frac{z^2}{4t}}}{t^{\nu+1}}$$

(Thanks to Klaus Rottbrand for correcting this error.)

2005 302 **Formula 8.440**, page 908, there is no reference. One reference is WH 358 a.

(Thanks to Leslie Green for this correction.)

2005 303 **Formula 8.443**, page 908. The first line is missing an equals sign.

2004 304 **Section head**, page 909. Above section 8.445 the section heading is now

The functions $\mathbf{I}_\nu(z)$ and $\mathbf{K}_\nu(z)$

This is incorrect, it should have been (note the subscript on the K function):

The functions $\mathbf{I}_\nu(z)$ and $\mathbf{K}_\mathbf{n}(z)$

(Thanks to Leslie Green for this correction.)

2005 305 **Formula 8.445**, page 909, the present reference is "WH" it should have been "WH 372 a."

(Thanks to Leslie Green for this correction.)

2001 306 **Formula 8.411 1** and **Formula 8.411 3**, page 902, the first line of each are missing an equals sign.

2003 **307 Section 8.41** (page 902) and **Page Heading** (page 903), is now

Integral representations of the functions $J_\nu(z)$ and $\boxed{N_\nu(z)}$

This is incorrect, it should have been:

Integral representations of the functions $J_\nu(z)$ and $\boxed{Y_\nu(z)}$

(Thanks to Leslie Green for this correction.)

2001 **308 Formula 8.443 1**, page 908, the first line is missing an equals sign.

2002 **309 Formula 8.451 2**, page 910, there is an equals sign missing between the $Y_{\pm\nu}(z)$ and the $\sqrt{\frac{2}{\pi z}}$.

(Thanks to Adrian A. Dragulescu for correcting this error.)

2002 **310 Formulae 8.451 3, 4 6**, page 910, the parameters $\{\vartheta_1, \vartheta_2, \vartheta_3\}$ should be replaced with $\{\theta_1, \theta_2, \theta_3\}$. These parameters are described on page 911.

(Thanks to Aba Teleki for correcting this error.)

2001 **311 Formula 8.451 5**, page 910, the constraint ends

$\ldots \arg z < \frac{1}{2}\pi]$

It should have ended

$\ldots \arg z < \frac{1}{2}\pi]^*$

to refer to the footnote on this page.

2005 **312 Formula 8.456**, page 913, now contains "$N_\nu^2(z)$", which is incorrect. It should have been "$Y_\nu^2(z)$".

(Thanks to Martin Gotz correcting this error.)

2005 **313 Formula 8.461 1**, page 913, the exponents in the summations are presently "$(2z)^{2k}$" and "$(2z)^{2k+1}$"; which are incorrect. The exponents should have been "$(2z)^{-2k}$" and "$(2z)^{-(2k+1)}$".

(Thanks to Eduardo Duenez for correcting this error.)

2004 **314 Equation in 8.478** page 917. The equation is now

$$x\left[J_\nu^2(x) + \boxed{N_\nu^2(x)}\right]$$

This is incorrect, it should have been:

$$x\left[J_\nu^2(x) + \boxed{Y_\nu^2(x)}\right]$$

(Thanks to Stuart Walsh for this correction.)

2004 **315 Equation 8.479 1** page 918. The middle expression is now

$$\frac{\pi}{2}\left[J_\nu^2(x) + \boxed{N_\nu^2(x)}\right]$$

This is incorrect, it should have been:

$$\frac{\pi}{2}\left[J_\nu^2(x) + \boxed{Y_\nu^2(x)}\right]$$

(Thanks to Stuart Walsh for this correction.)

2001 316 **Formula 8.486(1) 11**, page 920, the $I_k(z)$ term in the sum on the right hand side should be replaced with $K_k(z)$.
(Thanks to B. Van den Bossche for correcting this error.)

2005 317 **Formula 8.570 2**, page 935, the two constraints are incorrect and should be removed.
(Thanks to George Fikioris for correcting these errors.)

2005 318 **Formula 8.625 2**, page 942, the inequality constraint is now

$$[|a_0| \leq |a_2| \leq |a_4| \leq \ldots]$$

This is incorrect, it should have been

$$[|A_0| \leq |A_2| \leq |A_4| \leq \ldots]$$

(Thanks to Theodoros Theodoulidis for correcting this error.)

2001 319 **Equation 8.630 1**, page 942, the argument of the "cosh" should be "$2z$" rather than "$2x$".
(Thanks to Wes Harker for correcting this error.)

320 **Introduction section 8.64**, page 943, the last line of this introduction has the function "ge" appearing twice. This is incorrect, the function "Ge" should have appeared twice.
2005 (Thanks to Theodoros Theodoulidis for correcting this error.)

321 **Formulae 8.654 6–8**, page 944, The last three formulae in this section use the "ge" function a total of 4 times. Each time the correct function "Ge" should have been used.
2005 (Thanks to Theodoros Theodoulidis for correcting this error.)

2005 322 **Equation 8.671 2**, page 947, the equation is presently written

$$c_{2r} + \xi_{2r}(c_{2r+2} + c_{2r-2}) = 0, r = \ldots, -2, -1, 0, 1, 2, \boxed{2} \ldots$$

which is incorrect. It should have been

$$c_{2r} + \xi_{2r}(c_{2r+2} + c_{2r-2}) = 0, \qquad r = \ldots, -2, -1, 0, 1, 2, \ldots$$

(Thanks to Martin Gotz for correcting this error.)

2001 323 **Formula 8.705**, page 949, The first line of text after the formula now has

If $\mu = \pm\boxed{\text{m}}$ is ...

This is incorrect, it should have been:

If $\mu = \pm\boxed{m}$ is ...

(Thanks to Marcus Spradlin for correcting this error.)

2001 324 **Formula 8.731 1(2)**, page 955, The formula now reads:

$$\left(z^2 - 1\right) \frac{dP_\nu^\mu(z)}{dz} = (\nu + \mu)(\nu - \mu + 1)\boxed{\left(z^2 - 1\right)} P_\nu^{\mu-1}(z) - \mu z P_\nu^\mu(z)$$

This is incorrect, it should have been (one term should have had a square root sign):

$$\left(z^2 - 1\right) \frac{dP_\nu^\mu(z)}{dz} = (\nu + \mu)(\nu - \mu + 1)\boxed{\sqrt{z^2 - 1}} P_\nu^{\mu-1}(z) - \mu z P_\nu^\mu(z)$$

(Thanks to Shi-Hai Dong for correcting this error.)

2001 325 **Formula 8.733 3**, page 955, The formula now reads:

$$P_\nu^{\mu+2}(x) + 2(\mu+1)\frac{x}{\sqrt{1-x^2}}P_\nu^{\mu+1}(x) + (\nu-\mu)(\nu+\mu+1)\boxed{P_{(x)}^{\mu_n}} = 0$$

This is incorrect, it should have been (the last term is incorrect):

$$P_\nu^{\mu+2}(x) + 2(\mu+1)\frac{x}{\sqrt{1-x^2}}P_\nu^{\mu+1}(x) + (\nu-\mu)(\nu+\mu+1)\boxed{P_\nu^{\mu}(x)} = 0$$

(Thanks to Shi-Hai Dong for correcting this error.)

2005 326 **Integral 8.738 1**, page 957, the first term in the evaluation is now

$$\exp\left[i\pi\left(\mu - \frac{1}{2}\right)\right]$$

which is incorrect. It should have been

$$\exp\left[i\pi\left(\mu - \frac{\boxed{\nu+}1}{2}\right)\right]$$

(Thanks to Jonathan Engle and Chris Van Den Broeck for correcting this error.)

2004 327 **Formula 8.794**, page 963. The second line of the evaluation now has

$$P_\nu(\cos\psi_1)P_\nu(\cos\psi_2) + 2\sum_{k=1}^{\infty}\frac{\Gamma(\nu-k+1)}{\Gamma(\nu+k+1)}\boxed{P_\nu^k\left(\cos\psi_1 P_\nu^k(\cos\psi_2)\cos k\varphi\right)}$$

This is incorrect, it should have been:

$$P_\nu(\cos\psi_1)P_\nu(\cos\psi_2) + 2\sum_{k=1}^{\infty}\frac{\Gamma(\nu-k+1)}{\Gamma(\nu+k+1)}\boxed{P_\nu^k\left(\cos\psi_1\right) P_\nu^k(\cos\psi_2)\cos k\varphi}$$

(Thanks to Sten Herlitz for correcting this error.)

2005 328 **Section 8.81**, page 964, the section heading is now

Associated Legendre functions with integral indices

which is incorrect. It should have been

Associated Legendre functions with integer indices

(Thanks to Klaus Rottbrand for correcting this error.)

2005 329 **Section 8.810**, page 964, the section text now begins

For integral values of ...

which is incorrect. It should have been

For integer values of ...

(Thanks to Klaus Rottbrand for correcting this error.)

2002 330 **Formula 8.902 2**, page 973, the formula now reads:

$$\sum_{k=0}^{n} [p_k(x)]^2 = \frac{q_n}{q_{n+1}} \left[p_n(x)p'_{n+1}x) - p'_n x)p_{n+1}(x)\right]$$

This is incorrect, it should have been:

$$\sum_{k=0}^{n} [p_k(x)]^2 = \frac{q_n}{q_{n+1}} \left[p_n(x)p'_{n+1}\boxed{(}x) - p'_n\boxed{(}x)p_{n+1}(x)\right]$$

(Thanks to Marcus Spradlin for correcting this error.)

2005 331 **Formula 8.915 5**, page 976, the first fraction in the summation is

$$\frac{a_m - k a_k a_{n-k}}{A_{n+m-k}}$$

which is incorrect. It should have been

$$\frac{a_m - k a_k a_{n-k}}{a_{n+m-k}}$$

(Thanks to Robert Whittaker and William S. Price for correcting this error.)

2004 332 **Formula 8.930 5**, page 980, the formula now reads:

$$C_4^\lambda(t) = \cdots - 2\lambda(\lambda^{\boxed{3}} + 3\lambda + 2)t^2 + \ldots$$

This is incorrect, it should have been:

$$C_4^\lambda(t) = \cdots - 2\lambda(\lambda^{\boxed{2}} + 3\lambda + 2)t^2 + \ldots$$

(Thanks to Jae-Hun Jung for correcting this error.)

2001 333 **Formula 8.935 2**, page 982, the formula now reads:

$$\frac{dC_n^\lambda(t)}{d=} 2\lambda C_{n-1}^{\lambda+1}(t)$$

This is incorrect, it should have been:

$$\frac{dC_n^\lambda(t)}{dt} = 2\lambda C_{n-1}^{\lambda+1}(t)$$

(Thanks to Filippo Colomo for correcting this error.)

2005 334 **Formulae 8.945 1** and **8.945 2**, page 985, the constraint "$|t| < 1$" is missing.

(Thanks to Klaus Rottbrand for correcting this error.)

2004 335 **Formula 8.958**, page 988, the right-hand side of the expression is now

$$\sum_{m_1+m_2+\cdots+m_r=n} \prod_{k=1}^{r} \left\{ \frac{\boxed{a_k^m k}}{m_k!} H_{m_k}(x_k) \right\}$$

which is incorrect. It should have been

$$\sum_{m_1+m_2+\cdots+m_r=n} \prod_{k=1}^{r} \left\{ \frac{\boxed{a_k^{m_k}}}{m_k!} H_{m_k}(x_k) \right\}$$

(Thanks to Kuo Kan Liang for correcting this error.)

2005 336 **Formula 8.961 1**, page 989, The formula now reads:

$$P_n^{(\alpha,\boxed{\beta})}(-x) = (-1)^n P_n^{(\alpha,\boxed{\beta})}(x)$$

This is incorrect, it should have been:

$$P_n^{(\alpha,\boxed{\alpha})}(-x) = (-1)^n P_n^{(\alpha,\boxed{\alpha})}(x)$$

(Thanks to ILki Kim for correcting this error.)

2001 337 **Formula 8.961 4**, page 989, The formula now reads:

$$\frac{d^m}{dx^m}\left[P_{\boxed{n-1}}^{(\alpha,\beta)}(x)\right] = \frac{1}{2^m}\frac{\Gamma(n+m+\alpha+\beta+1)}{\Gamma(n+\alpha+\beta+1)}P_{n-m}^{\boxed{(\alpha,\beta)}}(x)$$

This is incorrect, it should have been:

$$\frac{d^m}{dx^m}\left[P_{\boxed{n}}^{(\alpha,\beta)}(x)\right] = \frac{1}{2^m}\frac{\Gamma(n+m+\alpha+\beta+1)}{\Gamma(n+\alpha+\beta+1)}P_{n-m}^{\boxed{(\alpha+m,\beta+m)}}(x)$$

(Thanks to Philip C. L. Stephenson for correcting this error.)

2001 338 **Formula 8.971 2**, page 991, the beginning of this formula now reads

$$\frac{d}{dx}L_n^{\alpha}(x) = -L_{n-1}^{\boxed{\alpha}}(x) = \dots$$

This is incorrect, it should have been:

$$\frac{d}{dx}L_n^{\alpha}(x) = -L_{n-1}^{\boxed{\alpha+1}}(x) = \dots$$

(Thanks to Anders Blom for correcting this error.)

2004 339 Section **8.974**, page 992:

(a) Formula **8.974 2**; the right hand side is now $L_n^{\beta}(x\boxed{+y})$, which is incorrect. It should have been $L_n^{\beta}(x)$.

(b) Formula **8.974 4**; the summand is now $L_m^{\alpha}(x)L_{n-m}^{\beta}(\boxed{x})$, which is incorrect. It should have been $L_m^{\alpha}(x)L_{n-m}^{\beta}(\boxed{y})$.

(Thanks to Vito Scarola for correcting these errors.)

2001 340 **Formula 8.980**, page 993, one term is now reads:

$$L_m^{\boxed{alpha}}(x)$$

This is incorrect, it should have been:

$$L_m^{\boxed{\alpha}}(x)$$

(Thanks to Marcus Spradlin for correcting this error.)

2003 341 **Formula 9.131 1 c**, page 998, the expression is now

$$(1-z)^{\gamma-\alpha-\beta}F(\gamma-\alpha\boxed{;}\gamma-\beta;\gamma;z)$$

This is incorrect. It should have been

$$(1-z)^{\gamma-\alpha-\beta}F(\gamma-\alpha\boxed{,}\gamma-\beta;\gamma;z)$$

(Thanks to Leslie Green for correcting this error.)

2001 342 **Formula 9.132 2**, page 999, the first large expression in parentheses is missing the function name "F" before the parentheses.

(Thanks to David J. Masiello for correcting this error.)

2005 343 **Formula 9.153 4**, page 1001, the formula for u_2 is now

$$u_2 = z^{-m} F(1 + m' \boxed{,} - m, \beta - m; 1 - m; z)$$

This is incorrect, the first comma should not be there. It should have been

$$u_2 = z^{-m} F(1 + m' - m, \beta - m; 1 - m; z)$$

(Thanks to Masaki Shigemori for correcting this error.)

2005 344 **Equation in 9.160 1**, page 1004, the second equation is now

$$\alpha + \alpha' + \beta \boxed{-} \beta' + \gamma + \gamma' - 1 = 0$$

which is incorrect. It should have been

$$\alpha + \alpha' + \beta \boxed{+} \beta' + \gamma + \gamma' - 1 = 0$$

(Thanks to Joel G. Heinrich for correcting this error.)

2005 345 **Equation 9.181 4**, page 1009, the second equation now has as a leading term

$$(1 - y)\frac{\partial^2 z}{\partial y^2}$$

which is incorrect. It should have been

$$\boxed{y}(1 - y)\frac{\partial^2 z}{\partial y^2}$$

(Thanks to Chris Herzog for correcting this error.)

2005 346 **Formula 9.19**, page 1012, the right hand side has a spurious plus sign in it; and the ellipses are in the wrong places. the right hand side now contains, in part:

$$\frac{(\alpha)_{m_1+\cdots+m_n}(\beta_1)_{m_1 \boxed{+} \ldots}(\beta_n)_{m_n}}{(\gamma_1)_{m_1 \ldots}(\gamma_n)_{m_n} m_1! \ldots m_n!}$$

which is incorrect. It should have been

$$\frac{(\alpha)_{m_1+\ldots+m_n}(\beta_1)_{m_1} \cdots (\beta_n)_{m_n}}{(\gamma_1)_{m_1} \cdots (\gamma_n)_{m_n} m_1! \cdots m_n!}$$

(Thanks to Tony Montagnes for correcting this error.)

2004 347 **Formula 9.20 3**, page 1014, the formula is now

$$M_{\lambda,-\mu}(z) = z^{-\mu+\frac{1}{2}} e^{-z/2} \Phi(-\mu - \lambda + \tfrac{1}{2}, 2\mu + 1; z)$$

This is incorrect. It should have been

$$M_{\lambda,-\mu}(z) = z^{-\mu+\frac{1}{2}} e^{-z/2} \Phi(-\mu - \lambda + \tfrac{1}{2}, \boxed{-} 2\mu + 1; z)$$

(Thanks to Marcus Spradlin for correcting this error.)

2002 348 **Integral 9.222 1**, page 1015, the integrand is now

$$e^{-zt}t^{\mu-\lambda-\frac{1}{2}}(1+t)^{\mu\boxed{-}\lambda-\frac{1}{2}}$$

This is incorrect. It should have been

$$e^{-zt}t^{\mu-\lambda-\frac{1}{2}}(1+t)^{\mu\boxed{+}\lambda-\frac{1}{2}}$$

(Thanks to Victor H. Moll and George Boros for correcting this error.)

2005 349 **Formula 9.234 2**, page 1017, the equation is now

$$W_{\mu,\lambda}(z) = \sqrt{z}\,W_{\mu-\frac{1}{2},\lambda\boxed{-}\frac{1}{2}}(z) + \left(\tfrac{1}{2} - \lambda - u\right)W_{\mu-1,\lambda}(z)$$

which is incorrect. It should have been

$$W_{\mu,\lambda}(z) = \sqrt{z}\,W_{\mu-\frac{1}{2},\lambda\boxed{+}\frac{1}{2}}(z) + \left(\tfrac{1}{2} - \lambda - u\right)W_{\mu-1,\lambda}(z)$$

(Thanks to Angelo Melino for correcting this error.)

2004 350 **Formula 9.246 2** and **Formula 9.246 3**, pages 1019–1020, the formulae are now

$$\begin{aligned} D_p(z) \sim & e^{-\boxed{z2}/4}z^p\left(1 - \ldots\right) \\ & - \frac{\sqrt{2\pi}}{\Gamma(-p)}e^{\pm p\pi i}e^{-\boxed{z2}/4}z^{-p-1}\left(1 + \ldots\right) \end{aligned}$$

These are incorrect. They should have been

$$\begin{aligned} D_p(z) \sim & e^{-\boxed{z^2}/4}z^p\left(1 - \ldots\right) \\ & - \frac{\sqrt{2\pi}}{\Gamma(-p)}e^{\pm p\pi i}e^{-\boxed{z^2}/4}z^{-p-1}\left(1 + \ldots\right) \end{aligned}$$

(Thanks to Marcus Spradlin for correcting this error.)

2005 351 **Formula 9.246 3**, page 1020, the constraints on the formula are now

$$[-\tfrac{1}{4}\pi > \arg z > \tfrac{5}{4}\pi]$$

This is incorrect. It should have been

$$[-\tfrac{1}{4}\pi > \arg z > \boxed{-}\tfrac{5}{4}\pi]$$

(Thanks to Marcus Spradlin for correcting this error.)

2002 352 **Formula 9.253**, page 1020, the formula is now

$$D_n(z) = \boxed{-}2^{-\frac{n}{2}}e^{-\frac{z^2}{4}}H_n\left(\frac{z}{\sqrt{2}}\right)$$

This is incorrect, is should have been

$$D_n(z) = 2^{-\frac{n}{2}}e^{-\frac{z^2}{4}}H_n\left(\frac{z}{\sqrt{2}}\right)$$

(Thanks to Tomohiro Shirai for correcting this error.)

2005 353 **Formula 9.254 2**, page 1020, the evaluation now has the form

$$e^{\frac{z^2}{4}}\sqrt{\frac{\pi}{2}}\left[\boxed{\sqrt{\frac{\pi}{2}}}e^{-z^2}-\dots\right]$$

This is incorrect, it should have been

$$e^{\frac{z^2}{4}}\sqrt{\frac{\pi}{2}}\left[\boxed{\sqrt{\frac{2}{\pi}}}e^{-z^2}-\dots\right]$$

2005 354 **Picture 9.512**, page 1026. The picture should be rotated 180 degrees.

(Thanks to Martin Gotz for correcting this error.)

2003 355 **Formula 9.513 3**, page 1026. In the sum on the right hand side (i.e., the $\sum_{k=1}^{\infty} e^{-k^2\pi\boxed{i}}$ term), the i should have been a t (i.e., the correct expression is $\sum_{k=1}^{\infty} e^{-k^2\pi\boxed{t}}$

(Thanks to David Cardon correcting this error.)

2001 356 **Formula 9.524**, page 1027, the left hand side is now

$$\frac{\zeta'_{(z)}}{\zeta(z)}$$

This is incorrect, it should have been:

$$\frac{\zeta'(z)}{\zeta(z)}$$

(Thanks to Laurent Berger for correcting this error.)

2005 357 **Formula 9.535 2**, page 1028, the expression is now

$$2^z\Gamma(1-z)\zeta(1-z)\sin\frac{z\pi}{2}\pi^{1-z}\zeta(z)$$

This is incorrect, it should have been:

$$2^z\Gamma(1-z)\zeta(1-z)\sin\left(\frac{z\pi}{2}\right)\boxed{=}\pi^{1-z}\zeta(z)$$

(Thanks to Aba Teleki and Martin Gotz for correcting this error.)

2002 358 In section **9.612**, third equation, page 1030, now has

$$B_n=-\boxed{n}\sum_{k=0}^{n-1}\dots$$

This is incorrect, it should have been:

$$B_n=-\boxed{n!}\sum_{k=0}^{n-1}\dots$$

(Thanks to Louie Louie for correcting this error.)

2005 359 **Formula 9.615**, page 1031. The recursion formula now has the form

$$B_{2n} = \cdots - \sum_{\boxed{k=1}}^{\infty} \ldots B_{\boxed{2}/2}$$

which is incorrect. It should have been

$$B_{2n} = \cdots - \sum_{\boxed{\substack{k=1 \\ k \text{ even}}}}^{\infty} \ldots B_{\boxed{k}/2}$$

(Thanks to Martin Gotz for correcting this error.)

2005 360 **Formula 9.618**, page 1031. Formula 9.618 is the same as formula 9.612 and should be removed.

(Thanks to Martin Gotz for correcting this error.)

2005 361 **Formula 9.635 1**, page 1033. This equation presently contains the expression

$$\frac{(4B-1)^{[n]}(4B-3)^{[n]}}{2n}$$

which is incorrect. It should have been

$$\frac{(4B-1)^{[n]}\boxed{-}(4B-3)^{[n]}}{2n}$$

Martin Gotz also notes that: $E_{n-1} = \frac{(4B+3)^{[n]}-(4B+1)^{[n]}}{2n}$.

(Thanks to Martin Gotz for correcting this error.)

2005 362 **Section 9.71 Bernouli numbers**, page 1035, the signs are incorrect for many of the values listed. The corrections are as follows:

(a) The sign of B_4 should be negative ($B_4 = -\frac{1}{30}$)
(b) The sign of B_6 should be positive ($B_6 = \frac{1}{42}$)
(c) The sign of B_8 should be negative ($B_8 = -\frac{1}{30}$)
(d) The sign of B_{10} should be positive ($B_{10} = \frac{5}{66}$)
(e) The sign of B_{14} should be positive ($B_{14} = \frac{7}{6}$)
(f) The sign of B_{24} should be negative ($B_{24} = -\frac{23664091}{2730}$)

(Thanks to Laurent Berger and Andrzej Staruszkiewicz for correcting these errors.)

2001 363 **Section 10.613 Spherical polar coordinates**, page 1043, the transformation is presently written as

$$x_1 = r, \sin\theta\cos\phi,\ x_2 = r, \sin\theta\sin\phi,\ x_3 = r, \cos\theta,$$

These have extra commas in them, they should have been:

$$x_1 = r\sin\theta\cos\phi,\ x_2 = r\sin\theta\sin\phi,\ x_3 = r\cos\theta,$$

(Thanks to David J. Masiello for correcting these errors.)

2002 364 **Equations 10.613 1**, page 1043, the last equation on the line is now

$$h_3 = r\sin\theta \boxed{d}$$

This should have been

$$h_3 = r\sin\theta$$

2002 365 **Section 11.114**, page 1049, the sentence contains "$\dfrac{1}{p} + \frac{1}{q} = 1$"; which is not well typeset. It should have been "$\frac{1}{p} + \frac{1}{q} = 1$".

(Thanks to Marcus Spradlin for correcting this error.)

2002 366 **Section 11.117**, page 1050, the first displayed equation contains "A_n" on the right-hand side; this is incorrect. It should have been "$\boxed{e}\, A_n$".

(Thanks to Marcus Spradlin for correcting this error.)

2002 367 **Section 13.125**, page 1061, the last part of the sentence is now "$AA^{\mathrm{H}} = AA = I$"; this is incorrect. It should have been "$AA^{\mathrm{H}} = A^{\mathrm{H}}A = I$";

(Thanks to Marcus Spradlin for correcting this error.)

2002 368 **Section 13.215 2**, page 1062. The displayed equation is now

$$Q = z_1^2 + z^2 + \cdots + z_n^2$$

This is incorrect, it should have been:

$$Q = z_1^2 + z_{\boxed{2}}^2 + \cdots + z_n^2$$

(Thanks to Marcus Spradlin for correcting this error.)

2002 369 **Section 13.215 3**, page 1062. The expression "bfM" should be "**M**".

(Thanks to Marcus Spradlin for correcting this error.)

2005 370 **Sentence 14.316 3**, page 1069. In this sentence replace the word "Jacobian" with the word "Wronskian".

(Thanks to Martin Gotz for correcting this error.)

2002 371 **Section 15.311 3–4**, page 1072. The expressions are currently

3. $||\mathbf{A} + \mathbf{b}|| \le ||\mathbf{A}|| + ||\mathbf{b}||$
4. $||\mathbf{A}\mathbf{b}|| \le ||\mathbf{A}||\,||\mathbf{b}||$

which are incorrect; matrices should be represented by upper-case letters, not lower-case letters. This should have been:

3. $||\mathbf{A} + \mathbf{B}|| \le ||\mathbf{A}|| + ||\mathbf{B}||$
4. $||\mathbf{A}\mathbf{B}|| \le ||\mathbf{A}||\,||\mathbf{B}||$

(Thanks to Marcus Spradlin for correcting this error.)

2003 **372 Equations 15.311 2** and **Equations 15.311 4** and the following displayed equation, page 1072, the multiplication of norms could be visually improved as follows

FOR	READ
$\lvert k\rvert\lvert\lvert \mathbf{A}\rvert\rvert$	$\lvert k\rvert\ \lvert\lvert \mathbf{A}\rvert\rvert$
$\lvert\lvert A\rvert\rvert\lvert\lvert \mathbf{b}\rvert\rvert$	$\lvert\lvert A\rvert\rvert\ \lvert\lvert \mathbf{b}\rvert\rvert$
$\lvert\lvert A\rvert\rvert\lvert\lvert \mathbf{x}\rvert\rvert$	$\lvert\lvert A\rvert\rvert\ \lvert\lvert \mathbf{x}\rvert\rvert$

(Thanks to Leslie Green for this correction.)

2005 **373 Formula in 15.823 1**, page 1079, the last formula on the page has on the left hand side "$\lambda_a^{(a)}$", which is incorrect. It should have been "$\lambda_s^{(a)}$".

2005 **374 Section 15.823 2**, page 1080. In this section the variable "**b**" occurs three times, each time it should have been a "**B**".

(Thanks to Martin Gotz for correcting this error.)

2005 **375 Section 16.81**, page 1093. The displayed differential equation should have a full second derivative and not a partial second derivative.

(Thanks to Martin Gotz for correcting this error.)

2005 **376 Sentence 17.12 3**, page 1100. This sentence contains

$$\int_0^x f(\boxed{\xi})\,d\zeta$$

which is incorrect. It should have been

$$\int_0^x f(\boxed{\zeta})\,d\zeta$$

(Thanks to Martin Gotz for correcting this error.)

2005 **377 Sentence 17.13 10**, page 1101. This constraint in the right column begins "Re $_s$", which is incorrect. It should have been "Re s".

(Thanks to Martin Gotz for correcting this error.)

2003 **378 Laplace transform 17.13, entry 35**, page 1102, we now have

$$F(s) = (s^2 + a^2)^{-1}\left[s + a\operatorname{cosech}\left(\frac{\pi}{2a}\right)\right]$$

This is incorrect, it should have been:

$$F(s) = (s^2 + a^2)^{-1}\left[s + a\operatorname{cosech}\left(\frac{\pi\boxed{s}}{2a}\right)\right]$$

(Thanks to Paul Radmore for correcting this error.)

2003 **379 Laplace transform 17.13, entry 46**, page 1103, we now have

$$F(s) = s^{-1}(s^2 + a^2)^{-2}\left(\boxed{25^2} + a^2\right)$$

This is incorrect, it should have been:

$$F(s) = s^{-1}(s^2 + a^2)^{-2}\left(\boxed{2s^2} + a^2\right)$$

(Thanks to Paul Radmore for correcting this error.)

2001 380 **Formula 17.23 23**, page 1112, the Fourier transform currently contains the term “$(2\boxed{/}\pi^3)^{1/2}$” which is incorrect. It should have been “$(2\pi^3)^{1/2}$”.

(Thanks to Steven Johnson for correcting this error.)

2005 381 **Formulae 17.24, lines 3 and 4**, page 1112, the expressions for $E(k)$ for these two lines are now

$$\boxed{\frac{2}{2\pi}}\frac{2a}{(a^2+k^2)^2} \text{ and } \boxed{\frac{2}{2\pi}}\frac{1}{(a^2+k^2)^{\boxed{2}}}$$

which are incorrect. They should have been

$$\boxed{\sqrt{\frac{2}{\pi}}}\frac{2a}{(a^2+k^2)^2} \text{ and } \boxed{\sqrt{\frac{2}{\pi}}}\frac{1}{(a^2+k^2)}$$

(Thanks to Jaime Zaratiegui Garcia for correcting this error.)

2001 382 **Formula 17.34 8**, page 1118, the $f(x)$ function is presently

$$\frac{1}{x^2+a^2}$$

This is incorrect, it should have been

$$\frac{1}{(x^2+a^2)^2}$$

(Thanks to Mel Schopper for correcting this error.)

2002 383 **Page heading**, pages 1123, 1125, is now

Table of Mellin [cosine] transforms

This is incorrect, it should have been:

Table of Mellin transforms

2005 384 **Formula 17.43.29**, page 1125, the column for $f^*(s)$ has the term “$J_{\nu-\frac{1}{2}}(ab)$” which is incorrect, it should have been “$J_{\nu-\frac{s}{2}}(ab)$” (note that “1/2” is now “$s/2$”). Additionally, the reference “MS 454” is incorrect, it should be “ET I 328”.

(Thanks to Christoph Bruegger and Martin Schmid for correcting these errors.)

2005 385 **Bibliographic Reference HI**, page 1134, the entry for this reference contains

…Lectrues …Addison- Wesley, …

which should have been

…Lectures …Addison-Wesley, …

(Thanks to Maarten H P Ambaum for correcting this error.)

2005 386 **References**, page 1136. The reference for ST now contains

Laméscher, Mathieusche und [Verwandte] Funktionen in Physik [and] Technik.

which is incorrect. It should have been

Laméscher, Mathieusche und [verwandte] Funktionen in Physik [und] Technik.

(Thanks to Martin Gotz correcting this error.)

2005 387 **Supplemental References**, page 1138. Reference number 7 under "Exponential integrals, gamma function and related functions" contains

Die Fakultät (Gammafunktion) und *Verwandte* *Funktionen*

which is incorrect. It should have been

Die Fakultät (Gammafunktion) und *verwandte* *Funktionen*

(Thanks to Martin Gotz correcting this error.)

2001 388 **Reference**, page 1136, the last entry is presently

ZY . . . *Trigonometric Series*

This is incorrect, it should have been

ZY . . . *Trigonometric* *al* *Series*

(Thanks to Naoki Saito for correcting this error.)

2005 389 **References**, page 1138, reference number 8 now has the name "Neilsen." which is incorrect, it should have been "Nielsen".

(Thanks to Stefan Kramer for correcting this error.)

2005 390 **Index**, page 1143. To the entry "am function", the page "859" should be added.

(Thanks to Martin Gotz correcting this error.)

2004 391 **Index entry**, page 1144. The bei(z) and ber(z) entries now have as entries

see Thomson's functions

This is incorrect, it should have been:

see Thomson functions

(Thanks to Leslie Green for correcting this error.)

2005 392 **Index**, page 1145, Page number 604 for the entry "chi function" should be removed.

(Thanks to Martin Gotz correcting this error.)

2001 393 **Index entry**, page 1149, the entry "Euler function (ψ)" is listed incorrectly under the P's; it should appear under the E's on page 1146.

(Thanks to Mel Schopper for correcting this error.)

2003 394 **Index entry**, page 1149, the entries for both

(a) $N_\nu(z)$
(b) Neumann function

are "*see* Bessel function, N". This is incorrect, it should say "*see* Bessel functions, Y".

(Thanks to Leslie Green for this correction.)

2003 395 **Index entry**, page 1151, under the T's we now have "Thomson function", this would be better written as "Thomson function s ".

(Thanks to Leslie Green for this correction.)

2003 396 **Index entry**, page 1151, under the Y's there should be an entry of

"Y .... *see* Bessel functions, Y".

(Thanks to Leslie Green for this correction.)

2005 397 **Index**, page 1155,

- add index entry "elliptic integrals, derivatives" with the pages "388, 855".
- under "elliptic integrals, complete" the following pages should be included "388, 466–469".

(Thanks to Leslie Green for this correction.)

2004 398 **Index entries**, pages 1159–1160. The two index entries

pseudo-elliptic integrals 103
seudo-elliptic integrals 180

should be combined into the single index entry

pseudo-elliptic integrals 103, 180

(Thanks to Leslie Green for correcting this error.)

Dates of updates and errata numbers modified at those dates

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