

ERRATA FOR
**EXPLORING MONTE
CARLO METHODS**

William L. Dunn and J. Kenneth Shultis
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Location (Discoverer)	As Is	Change to
p. 6, Eq. (1.7)	P_{cit}	P_{cut}
p. 19, Problem 5.	Add to end of problem “Use the random numbers of Problem 2.”	
p. 19, Problem 8.	length L	length $L < D$
p. 25, line 3, 2nd para.	$f(X)$	$f(x)$
p. 31, Eq. (2.35)	$dx dy$	$dy dx$
p. 32, Eqs. (2.39)–(2.41)	$dx dy$	$dy dx$
p. 34, Eq. (2.47)	$[z(\mathbf{x}) - \langle \mathbf{x} \rangle]^2$	$[z(\mathbf{x}) - \langle z \rangle]^2$
p. 34, 2nd line of Section 2.3.3	population mean	sample mean
p. 34, 1st line Eq. (2.49), last term	$\sum_{i=N}^N$	$\sum_{i=1}^N$
p. 35, 1st line	\prod_{i+1}^N	$\prod_{i=1}^N$
p. 38, Eq. (2.64)	$s(x)$	$s(z)$ twice
p. 39, line after Eq. (2.65)	$(1/N)\overline{g^2} = \sum_{i=1}^N g(\mathbf{x}_i)$	$\overline{g^2} = (1/N) \sum_{i=1}^N g(\mathbf{x}_i)$
p. 46, 1st word	phenomena	phenomenon
p. 48, 2nd line Section 3.1	[Lehmer 1951]	Lehmer [1951]
p. 57, Sec. 3.53, para. 2, line 1	$m = 16807$	$a = 16807$
p. 67, Problem 7	$2^8 - 1$	$2^5 - 1$
p. 76, Example 4.4, line 8	$y_i = R(1 - \rho_j)$	$y_i = R(1 - 2\rho_j)$
p. 78, line 14	composite method	composition method
p. 80, 3rd line	$\rho_{i+1} \leq f_j(x_t)$	$\rho_{i+1} \leq f_i(x_t)$
p. 81, penultimate equation	$f_\phi(\phi) = \dots \simeq 0.8336,$	$f_\phi(\phi) = \dots \simeq 0.8335,$
p. 82, 1st equation	$\sqrt{2}(4 - \pi)8$	$\sqrt{2}(4 - \pi)/8$
p. 82, 2nd equation	$\rho_{1i} = f_\phi(\phi_i) = \dots$	$\rho_{1i} = F_\phi(\phi_i) = \dots$
p. 83, Eq. (4.25)	$\frac{1}{N-1} \sqrt{z^2 - \overline{z}^2}$	$\frac{1}{\sqrt{N-1}} \sqrt{z^2 - \overline{z}^2}$
p. 91, 1st text line	an arbitrary precision	any arbitrary precision
p. 95, Problem 7, unnumbered equation	x	ξ
p. 101, 5 lines after 1st Eq.	$(2/\alpha^2 a)$	$(2/\alpha^2)$
p. 109, 4th line from bottom,	$f(\mathbf{x})$	$f_m(\mathbf{x})$
p. 112, Eqs. (5.48) and (5.49)	$\langle \sigma_j \rangle$	$\langle \sigma \rangle$
p. 112, Eq. (5.49)	$\sum_{j=1}^N$	$\sum_{j=1}^M$
p. 114, Eq. (5.55)	$\langle (\overline{z}_i - \langle z_i \rangle)^2 \rangle$	$\langle (z_i - \langle z_i \rangle)^2 \rangle$
p. 120, first equation	$\overline{P}_2 = \frac{N_h}{N}$	$\overline{P}_1 = \frac{N_h}{N}$

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p. 150, last line	σ_{12}	σ_{12}^2
p. 155, sentences before & after Eq. (6.45)	marginal PDF	conditional PDF
p. 157, last Eq. in Example	$\text{Prob}\{1 \text{yellow}\} =$	$\text{Prob}\{3 \text{yellow}\} =$
p. 158, denominator of 1st eq.	$\Gamma(\alpha) + \Gamma(\beta)$	$\Gamma(\alpha)\Gamma(\beta)$
p. 158, last text line	Johnson and Kotz [1070]	[Johnson and Kotz 1970]
p. 159, Eq. (6.52), denominator 2nd line	$\Gamma(\alpha + \beta)\Gamma(\beta + n - k)$	$\Gamma(\alpha + k)\Gamma(\beta + n - k)$
p. 159, Eq. (6.52), 3rd line	$g(p \alpha + k, \beta + n)$	$g(p \alpha + k, \beta + n - k)$
p. 160, Eq. (6.53)	$\ell(\mathbf{D} \theta)$	$[\ell(\mathbf{D} \theta)/M]$
p. 161, Eq. (6.55)	$\int_{-\infty}^{\infty}$	\int_V
p. 168, last line Problem 2	$h(\nu) = e^{-0.8 \nu }$	$h(\nu) = e^{-0.5 \nu }$
p. 169, first Eq.	$\exp\left[-\frac{(x - \mu)^2}{2\sigma^2}\right]$	$\exp\left[-\frac{(z - \mu)^2}{2\sigma^2}\right]$
p. 169, first line of Problem 4	$\mu = 10.0$ and $\sigma = 5.0$	$\mu = 2.0$ and $\sigma = \sqrt{2}$
p. 179, Eq. (7.10)	$\bar{R}(y_k, \theta)$	$\bar{R}(\mathbf{y}_k, \theta)$
p. 180, Eq. (7.13)	$\dots + \left(\frac{\partial G_j}{\partial \bar{R}_k}\right)^2 \dots$	$\dots + \sum_{k=1}^K \left(\frac{\partial G_j}{\partial \bar{R}_k}\right)^2 \dots$
p. 184, Example 7.4, 4th text line	$A = \lambda/(e^{-\lambda a} - e^{-\lambda b})$	$A = 1/(e^{-\lambda a} - e^{-\lambda b})$
p. 186, Eq. (7.28)	$a + (j - 1)\Delta \leq x < j\Delta$	$a + (j - 1)\Delta \leq xi < a + j\Delta$
p. 190, Eq. (7.41)	$\mathcal{R}_1 \simeq \bar{R}_k$	$\mathcal{R}_1 \simeq \bar{R}_1$
p. 190, Eq. (7.41)	$\sum_{m=0}^M \theta^m$	$\sum_{m=0}^M (\theta_o - \theta)^m$
p. 194, Eq. (7.54)	\int_0^U	\int_0^L
p. 194, Eq. (7.54)	$\cos^{-1}\left(\frac{x_i}{L}\right)$	$\cos^{-1}\left(\frac{x}{L}\right)$
p. 194, last Eq.	$\cos^{-1}\left(\frac{x}{L}\right)$	$\cos^{-1}\left(\frac{x_i}{L}\right)$
p. 212, bottom eq.	$\int_V h(\mathbf{x})f(\mathbf{x}) d\mathbf{x}$	$\int_V h(\mathbf{x})y(\mathbf{x}) d\mathbf{x}$
p. 219, line after Eq.(8.65)	<i>radius r equals</i>	<i>radius r₀ equals</i>
p. 224, Eq. (8.80)	$\left[\frac{1}{ \mathbf{r} } - \frac{1}{r}\right]$	$\left[\frac{1}{ \mathbf{r}_i } - \frac{1}{r}\right]$
p. 230,Eq. (8.104)	$\sum_{j=1}^{n_i}$	$\sum_{j=0}^{n_i}$
p. 233, 2nd Eq. from bottom	$\left(\frac{n\pi}{L}\right)^2 + \left(\frac{n\pi}{L}\right)^2 + \beta^2$	$\left(\frac{n\pi}{L}\right)^2 + \left(\frac{m\pi}{L}\right)^2 + \beta^2$
p. 282, 3 lines below Eq. (10.26)	$w < 0.9$	$w > 0.9$
p. 283, Eqs. (10.29) and (10.31)	$\cos \Delta\psi$	$\cos \Delta\psi_s$

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p. 291, Fig. caption	$R = \mathbf{r}' - \mathbf{r} $	$R = \mathbf{r}' - \mathbf{r}_d $
p. 291, 4th line after caption	...about Ω is	.. about Ω with energy E' is
p. 291, middle eq.	$\mu_t(\mathbf{r}, E) ds$	$\mu_t(\mathbf{r}, E') ds$
p. 291, Eq. (10.50)	W	$W \frac{\mu_s(\mathbf{r}', E)}{\mu_t(\mathbf{r}', E)}$ (twice)
p. 291, Eq. (10.50)	$\int_0^R \mu_t(\mathbf{r}, E) ds$	$\int_0^R \mu_t(\mathbf{r}, E') ds$
p. 292, Eq. (10.51)	W	$W \frac{\mu_s(E)}{\mu_t(E)}$ (twice)
p. 292, Eq. (10.51)	$\int_0^{R_o} \frac{1}{r^2} e^{-\mu_t(E)r} (4\pi r^2) dr$	$\int_0^{R_o} \frac{1}{r^2} e^{-\mu_t(E')r} (4\pi r^2) dr$
p. 294, Eq. (10.52)	$-1 \leq \omega \leq 0$	$-1 \leq \omega \leq 1$
p. 294, line before Eq. (10.54)	[Shultis and Faw 2007]	[Shultis and Faw 2000]
p. 295, item (d) of algorithm	$1/\omega_{i+1}$ and $1/\omega_i$	$1/ \omega_{i+1} $ and $1/ \omega_i $
p. 297, lines 3–5	$S(\mathbf{P})$	$\overline{S}(\mathbf{P})$ (3 times)
p. 298, Eq. (10.64)	W	Z
p. 321, Eq. (A.54)	$\langle x \rangle$	\overline{x}
p. 321, Eq. (A.55)	$\sigma^2 \dots [x_i - \hat{x}]^2$	$s^2 \dots [x_i - \overline{x}]^2$
p. 332, Eq. (A.91)	$\lim_{p \rightarrow 0}$	$\lim_{p \rightarrow 0}$
p. 340, line above Section B.2.2	$\lim_{N \rightarrow \infty} x_N$	$\lim_{N \rightarrow \infty} \overline{x}_N$