AUTHORS' AMENDMENTS FOR FIRST PRINTING

* denotes an amendment effected in second printing. The other amendments should have been effected by the 4th printing.

(1) *Page 20. The quantity "$\hat{z}_{ij}^{(k)}$" is defined incorrectly. It should be

$$\text{“}\hat{z}_{ij}^{(k)} = 1 \quad \text{if} \quad i = \arg\max_h \tau_h(\boldsymbol{w}_j;\ \boldsymbol{\Psi}^{(k)}),$$

and be zero otherwise,"

(2) Page 46. In the right-hand side of equation (2.4), "$-n\log(2\pi)$" should be replaced by "$-\{m + \frac{1}{2}(m_1 + m_2)\log(2\pi)\}$."

(3) Page 46. Also in the right-hand side of equation (2.4), "$-\frac{1}{2}\sum_{i=1}^{2} m_i \log\sigma_{ii}$" should be replaced by "$-\frac{1}{2}\{m_1\log\sigma_{22} + m_2\log\sigma_{11}\}$."

(4) Page 49. Before the 3rd last line, insert the equation

$$\hat{\sigma}_{12} = \hat{\beta}\hat{\sigma}_{11}.$$

(5) Page 50. In the first column of Table 2.1, the iteration number should start from "0" and not "1." Also, the entries in the last three columns are incorrect. This table should be replaced by the table below.

Table 2.1. Results of the EM Algorithm for Example 2.1 (Missing Data on One Variate).

Iteration	$\mu_1^{(k)}$	$\mu_2^{(k)}$	$\sigma_{11}^{(k)}$	$\sigma_{12}^{(k)}$	$\sigma_{22}^{(k)}$	$-2\log L(\boldsymbol{\Psi}^{(k)})$
0	13.000	14.87500	40.200	24.93750	28.85937	110.6344
1	13.000	14.62687	40.200	20.94254	26.31958	110.1642
2	13.000	14.61699	40.200	20.88279	26.65277	110.1602
3	13.000	14.61561	40.200	20.88436	26.73346	110.1601
4	13.000	14.61532	40.200	20.88497	26.74991	110.1601
5	13.000	14.61525	40.200	20.88512	26.75322	110.1601
6	13.000	14.61524	40.200	20.88515	26.75389	110.1601
7	13.000	14.61524	40.200	20.88515	26.75402	110.1601
8	13.000	14.61523	40.200	20.88516	26.75405	110.1601
∞	13.000	14.61523	40.200	20.88516	26.75405	110.1601

(6) Page 93. The term "$w_{1j}^{(k)}$" on the right-hand side of the equation in the 1st line should be replaced by "$w_{2j}^{(k)}$."

(7) Page 93. The term "$w_{1j}^{(k)}$" on the left-hand side of equation (3.33) should be replaced by "$w_{2j}^{(k)}$."

(8) Page 93. The term "$w_{2j}^{(k)^2}$" should be added to the left-hand side of equation (3.34).

(9) Page 93. The first term on the right-hand side of the equation above (3.35), "$-\log(2\pi)$," should be "$-12\log(2\pi)$."

(10) Page 93. The first term on the right-hand side of equation (3.35), "$-\log(2\pi)$," should be "$-12\log(2\pi)$."

(11) Page 93. The second last term on the right-hand side of equation (3.35), "$-(10+2\sigma_{11}^{(k)})/\sigma_{11}$," should be replaced by "$-(10+2\sigma_{11}^{(k)})/\{\sigma_{11}(1-\rho^2)\}$."

(12) Page 93. The last term on the right-hand side of equation (3.35), "$-(10+2\sigma_{22}^{(k)})/\sigma_{22}$," should be replaced by "$-(10+2\sigma_{22}^{(k)})/\{\sigma_{22}(1-\rho^2)\}$."

(13) Page 199. The equation in the 1st line should read as

$$\boldsymbol{\Delta}^{(k)} = \boldsymbol{I}_q - \boldsymbol{B}^{(k)^T}(\boldsymbol{D}^{(k)} + \boldsymbol{B}^{(k)}\boldsymbol{B}^{(k)^T})^{-1}\boldsymbol{B}^{(k)},$$

(14) Page 199. The equation in the 6th line should read as

$$\boldsymbol{B}^{(k+1)^T} = (\boldsymbol{\gamma}^T\boldsymbol{C}_{yy}\boldsymbol{\gamma} + n\boldsymbol{\Delta})^{-1}\boldsymbol{\gamma}^T\boldsymbol{C}_{yy}$$

(15) Page 199. The equation in the 8th line should read as

$$\boldsymbol{D}^{(k+1)} = (1/n)\,\mathrm{diag}\{\boldsymbol{C}_{yy} - \boldsymbol{C}_{yy}\boldsymbol{\gamma}(\boldsymbol{\gamma}^T\boldsymbol{C}_{yy}\boldsymbol{\gamma} + n\boldsymbol{\Delta})^{-1}\boldsymbol{\gamma}^T\boldsymbol{C}_{yy}\}$$

TYPOS AND OTHER MINOR ERRORS

(1) Page 2. In the 19th last line, change "forms" to "problems."

(2) *Page 10. In the 9th last line, change "likelihood equation (1.15)" to "right-hand side of (1.15)."

(3) Page 11. In the right-hand side of the first equation, "4" should be "n."

(4) *Page 14. In the last line, "(1.15)" should be replaced by "given by equating (1.15) to zero."

(5) Page 21. In the 8th line of Section 1.5.1, "complete-data" should be "complete data," and in the 6th last line, "the" should be inserted before "MLE."

(6) *Page 27. In the last line of Section 1.5.3, "of $\boldsymbol{\Psi}$" should be "of $L(\boldsymbol{\Psi})$."

(7) *Page 31. At the end of the 6th line, insert "which, on ignoring an additive term not involving $\boldsymbol{\Psi}$, is given by"

(8) *Page 31. In the definition of the M-step after equation (1.71), "over $\boldsymbol{\Psi}^{(k)}$" should be "over $\boldsymbol{\Psi}$."

(9) Page 39. In the 15th last line, change "of" to "as" before "the Sundberg."

(10) Page 49. In the equation in the 6th last line, "w_{ij}" should be "w_{1j}."

(11) Page 50. In the 3rd last line of Section 2.2.2, delete "for" before "$\hat{\boldsymbol{\Psi}}^{(0)}$."

(12) Page 50. At the end of the last sentence in Section 2.2.2, insert "so far as W_2 is concerned."

(13) Page 52. In the 2nd last line, "$\hat{\beta}(1)$" should be "$\hat{\beta}_{(1)}$."

(14) Page 54. At the start of the 10th line of Section 2.3.3, delete "the" before "j."

(15) Page 55. In the right-hand side of equation (2.16), insert "$\frac{1}{2}$" after the minus sign and before the term "$\sum_{j=1}^{m}(\boldsymbol{\beta}^T\boldsymbol{x}_j)^2/\sigma^2$."

(16) Page 57. The last term on the right-hand side of the equation in the 4th line above equation (2.18), "$2n_{AB}\log(pq)$," should be "$n_{AB}\log(2pq)$."

(17) *Page 61. In the 12th last line, "$(\boldsymbol{y}, \boldsymbol{z})^T$" should be "$(\boldsymbol{y}^T, \boldsymbol{z}^T)^T$."

(18) Page 67. In the right-hand side of equation (2.42), "$\boldsymbol{y}_j$" should be "$\boldsymbol{w}_j$."

(19) Page 72. In the 5th line, "Lindsay, 1995" should be "Lindsay (1995)."

(20) *Page 72. In the 6th last line, "21.6" should be "28.8" and " 151.2" should be "158.4."

(21) Page 77. In the 3rd last line of Section 2.8.2, "(2.6.1)" should be "(2.61)."

(22) Page 89. In the 2nd line of Section 3.5.2, "$\boldsymbol{\Omega}$" should be "$\mathcal{S}$" in "$\boldsymbol{\Psi} \in \boldsymbol{\Omega}$."

(23) *Page 81. In Table 2.13, in the 2nd column, "(0.417)" and "(0.175)" should be "(0.0471)" and "(0.0175)", respectively, and in the 3rd column, "(0.521)" should be "(0.0521)."

(24) *Page 87. In the 3rd last line of Section 3.4.2, "$>$" should be "$\geq$" in "$\sigma^2 > \epsilon$."

(25) *Page 89. At the end of the last line, insert a square to denote the end of the proof of Theorem 3.4.

(26) *Page 90. The square at the end of the 6th line to denote the end the proof of Theorem 3.4 should be deleted.

(27) Page 91. At the start of the 9th line of Section 3.1.1, "$m_1 = m_2 = 4$" should be "$m_1 + m_2 = 8$."

(28) Page 101. In the 2nd line, delete the minus sign after the equals sign.

(29) *Page 107. In the 4th last line of the 2nd last paragraph, "$L(\boldsymbol{\Psi}^*)$" should be "$L(\boldsymbol{\Psi})$."

(30) *Page 108. In the 2nd line of Section 3.9.4, in the right-hand side of the equation, "$\boldsymbol{\Psi}^{(k)}$" should be "$\boldsymbol{\Psi}^{*}$" in the two places where it occurs.

(31) Page 112. In the right-hand side of equation (4.5), "$g_c\boldsymbol{x};\ \boldsymbol{\Psi})$" should be "$g_c(\boldsymbol{x};\ \boldsymbol{\Psi})$."

(32) Page 119. In the right-hand side of equation (4.34), the summation sign should be moved to follow directly after the equals sign.

(33) Page 120. In the right-hand side of equation (4.36), the summation sign should be moved left to follow directly after the minus sign.

(34) Page 130. In the 10th line of Section 4.5.2, delete "to be" in "to be explained below."

(35) *Page 140. In equation (4.88), and in the line below, "$\hat{F}$" should be replaced by "$\hat{F}_W$."

(36) Page 140. In the right-hand side of equation (4.89), insert "$*$" as a superscript on "$\hat{\boldsymbol{\Psi}}$" in the two places where it occurs.

(37) Page 140. In the right-hand side of equation (4.91), "$\hat{\boldsymbol{\Psi}}^*$" should be "$\hat{\boldsymbol{\Psi}}^*_b$."

(38) Page 146. In the 4th line above Table 4.3, "0.1" should be "0.01."

(39) *Page 150. In the 6th last line, the comma at the end of the equation should be a semicolon.

(40) Page 151. In the 6th last line, "of" should be "and" before "Jennrich."

(41) Page 155. In the left-hand side of equation (4.121), "$\boldsymbol{\Psi}^{(k}$" should be "$\boldsymbol{\Psi}^{(k)}$" in "$]_{\hat{\boldsymbol{\Psi}}=\hat{\boldsymbol{\Psi}}^{(k}}$."

(42) Page 190. In the 11th line of Section 5.8.7, "$\hat{\boldsymbol{\Psi}}$" and "$\hat{\nu}$" should be "$\boldsymbol{\Psi}^{(k)}$" and "$\nu^{(k)}$", respectively.

(43) Page 190. On the y-axis of the right-hand figure at the bottom of this page, "$V^{(k)}$" should be "$\nu^{(k)}$."

(44) Page 193. Delete "$\boldsymbol{D}-$" in the right-hand side of equation (5.61).

(45) Page 193. The equation between (5.62) and (5.63) should be

$$(\boldsymbol{Z}_j^T\boldsymbol{R}_j^{-1}\boldsymbol{Z}_j+\sigma^2\boldsymbol{D}^{-1})\boldsymbol{D}\boldsymbol{Z}_j^T=\boldsymbol{Z}_j^T\boldsymbol{R}_j^{-1}(\boldsymbol{Z}_j\boldsymbol{D}\boldsymbol{Z}_j^T+\sigma^2\boldsymbol{R}_j)$$

(46) Page 193. In the last line, delete "$\sigma^{(k)^2}$" after the equals sign in equation (5.66).

(47) Page 194. In the 2nd line, "$\boldsymbol{\Psi}^{(k+1)}$" should be "$\boldsymbol{\Psi}^{(k)}$."

(48) Page 194. In the last line, "$\sigma^{(k)^2}$" should be "$\sigma^{(k)^{-2}}$" in the right-hand side of the equation.

(49) *Page 195. In the 8th last line of Section 5.9.4, "Ψ_3^T" should be "Ψ_3."

(50) *Page 196. In the 16th line, the summation sign "$\sum_{j=1}^m$" should be inserted after "$1/n$" in the right-side of the equation for "$\alpha^{(k+1)^2}$."

(51) *Page 196. In the 22nd line, "$1/n$" should be inserted after the equals sign in the equation for "$\alpha^{(0)^2}$."

(52) Page 197. In the 6th last line, "$\boldsymbol{Z}_j\boldsymbol{B}$" should be "$\boldsymbol{B}\boldsymbol{Z}_j$."

(53) Page 199. In the 7th last line, "ECM" should be "ECME."

(54) Page 200. On the left-hand side of the equals sign, the subscripts "$\boldsymbol{yy}$" in "$C_{\boldsymbol{yy}}$" should not be in boldface.

(55) Page 202. At the start of the 9th line, "complete-data" should be "complete data."

(56) Page 206. At the end of the 1st line of Section 5.11.3 and the start of the next line, "complete-data" should be "complete data."

(57) *Page 211. In the 6th line, "$\tilde{\Psi}$" should be in boldprint.

(58) *Page 219. In (a), two lines above equation (6.5), "$\boldsymbol{z}^{(m)}$" should be "$\boldsymbol{z}^{(M)}$."

(59) *Page 219. In the 4th last line, "$\boldsymbol{z}^{(1)}$" should be "$\boldsymbol{z}^{(1_k)}$" and "$\boldsymbol{z}^{(m)}$" should be "$\boldsymbol{z}^{(M_k)}$."

(60) *Page 220. In the 8th last line of Section 6.4, "$m = 1$" should be "$M = 1$."

(61) *Page 221. In the 12th last line in (1), "Ψ" should be in boldprint in "Draw Ψ."

(62) *Page 221. In the 11th last line in (2), "$\boldsymbol{\theta}$" should not be in boldprint in "Draw $\boldsymbol{\theta}$" and "$g(\boldsymbol{\theta})$", respectively.

(63) *Page 221. In the 9th last line in (3), "$\boldsymbol{\theta}$" should not be in boldprint in "If $\boldsymbol{\theta}$."

(64) *Page 221. In the last 2nd last line in (1), "Ψ_1" and "Ψ_M" should be in boldprint.

(65) *Page 222. In the 2nd line, "Ψ_1" and "Ψ_M" should be in boldprint.

(66) *Page 222. In the 6th last line of Section 6.6, "$\boldsymbol{z}^{(m)}$" should be "$\boldsymbol{z}^{(M)}$."

(67) *Page 223. In the 2nd line, insert a comma after "$\Psi_3^{(k)}$."

(68) *Page 234. In the 21st line, "W_1" and "W_n" should be in boldprint.

(69) *Page 234. In the left-hand side of the equation, "w_1" and "w_n" should be in boldprint, and in the right-hand side of the same equation, "w_j" should be in boldprint.

(70) Page 241. In the 3rd line, insert "a" after "1995" in "Amari (1995)."

(71) *Pages 241 & 242. The upper limit g of the subscript "h" should be "g_1", and the upper limit g of the subscript "i" should be "g_2", in all places where g presently appears as their upper limit.