Errata for Linear and Nonlinear Optimization, 2nd Edition, First Printing

by Griva, Nash, and Sofer

Last modified on July 31, 2010

Items are sorted by order of occurrence within the book. Negative line numbers are counted from the bottom of the page. Within displayed equations matrices and vectors are counted as a single line.

01	1 0	1 0	equations matrices and vectors are counted as a single mit.
	Page 10	Line -4	
		Change:	a_{ij}
		To:	$a_{ij}x_j$
	Page 23	Line -2	
		Change:	$\xi _{\xi_i}$
		To:	ξ_i
	Page 24	Line -3	
		Change:	(13.3), (0.31.5)
		To:	(1, 3.3), (0.3, 1.5)
	Page 25	Line 3	
		Change:	Repeat the problem when the first class includes also the point $(0.2, 2.5)$ and
			the second class includes the point $(1.7, 3.6)$.
		To:	Repeat the problem when the point $(0.2, 2.5)$ is in the first class rather than
			the second, and the point $(1.7, 3.6)$ is in the second class rather than the first.
	Page 29	Line 8	
	0	Change:	72 Gy
		To:	78 Gy
	Page 35	Line 10	
	8	Change:	1444 detector pairs
		To:	2164 detector pairs
	Page 41	Line 9	
	1 age 11	Change:	Schökopf
		To:	Schölkopf
	Page 41	Line 16	Scholkopi
	1 age 41	Change:	Eruditorium
		To:	Eruditorum
	Dama 52	10. Line -3	
	Page 52		$f(x) = c^T x$ for some vector c
		Change:	
	D 59	To:	$f(x) = c^T x + b$ for some vector c and scalar b
	Page 53	Line -3	$P(\langle \cdot \rangle, \langle 1 \rangle)$
		Change:	$f(\alpha(x) + (1 - \alpha)x)$
	D 50	To:	$f(\alpha(x) + (1 - \alpha)y)$
	Page 53	Line -2	
		Change:	any local minimizer
		To:	any strict local minimizer
	Page 53	Line -1	
		Change:	a global minimizer
		To:	a strict global minimizer
	Page 53	Line -1	
		Insert:	New sentence at end of line:
			Is every local minimizer also a global minimizer?
	Page 148	Exercise 3.2	
		Change:	Example 5.5
		To:	Example 5.4
	Page 160	Exercise 4.6	
	-	Change:	Examples 5.7, 5.8 and 5.9
		To:	Examples 5.6, 5.7 and 5.8

To: x_5 Page 186 Line 9 Change: $y_i - M$ To: $M - y_i$ Page 188 Line 9 Change: maximize To: minimize Page 203 Exercise 4.4 Change: basic $x_1 \ x_2 \ x_3 \ x_3 \ x_4 \ x_5 \ rhs$ To: basic $x_1 \ x_2 \ x_3 \ x_4 \ x_5 \ x_6$ rhs Page 206 Line -2 Change: $z(\alpha) = -13 + \alpha c_{\pi}^{T} x_{\pi} = -13 + 21\alpha$ To: $z(\alpha) = -13 + \alpha c_{\pi}^{T} x_{\pi} = -13 + 21\alpha$ To: $z(\alpha) = -13 + \alpha c_{\pi}^{T} x_{\pi} = -13 + 21\alpha$ Page 207 Line 9 Change: $\hat{c}_{N}^{T} = c_{N}^{T} - c_{\pi}^{T} B^{-1} N = \left(\frac{0}{\frac{1}{7}}\right)$ To: $\hat{c}_{N}^{T} = c_{N}^{T} - c_{\pi}^{T} B^{-1} N = \left(\frac{0}{\frac{1}{7}}\right)$ Page 208 Line 2 Change: $\hat{c}_{N}^{T} = c_{N}^{T} - c_{\pi}^{T} B^{-1} N = \left(\frac{0}{\frac{1}{8}}\right)$ To: $\hat{c}_{N}^{T} = c_{N}^{T} - c_{\pi}^{T} B^{-1} N = \left(\frac{0}{\frac{1}{8}}\right)$ To: $\hat{c}_{N}^{T} = c_{N}^{T} - c_{\pi}^{T} B^{-1} N = \left(\frac{0}{\frac{1}{8}}\right)$ Page 208 Line 2 Change: $\hat{c}_{N}^{T} = c_{N}^{T} - c_{\pi}^{T} B^{-1} N = \left(\frac{0}{\frac{1}{8}}\right)$ To: $\hat{c}_{N}^{T} = c_{N}^{T} - c_{\pi}^{T} B^{-1} N + \alpha (\Delta c_{N}^{T} - \Delta c_{\pi}^{T} B^{-1} N) = \left(\frac{0}{\frac{1}{8}}\right)$ Page 220 Line 4 Change: $c_{N} = \left(\frac{-5}{0}\right)$ To: $c_{N} = \left(\frac{-2}{1}\right)$ To: $N = \left(\frac{-2}{1} - 1\right)$ Page 388 Line -12 Change: $-g(x)$ To: $-\nabla f(x)$ Page 539 Line -14 Change: $y_{j}(w^{T} x_{j} + b) = 1$
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Page 207 Line 9 $ \begin{array}{cccc} Change: & \hat{c}_{N}^{T} = c_{N}^{T} - c_{B}^{T}B^{-1}N = \left(\frac{0}{\frac{1}{7}}\right) \\ \text{To:} & \hat{c}_{N}^{T} = c_{N}^{T} - c_{B}^{T}B^{-1}N + \alpha(\Delta c_{N}^{T} - \Delta c_{B}^{T}B^{-1}N) = \left(\frac{0}{\frac{1}{7}}\right) \\ \text{Page 208 Line 2} \\ Change: & \hat{c}_{N}^{T} = c_{N}^{T} - c_{B}^{T}B^{-1}N = \left(\frac{0}{\frac{1}{8}}\right) \\ \text{To:} & \hat{c}_{N}^{T} = c_{N}^{T} - c_{B}^{T}B^{-1}N + \alpha(\Delta c_{N}^{T} - \Delta c_{B}^{T}B^{-1}N) = \left(\frac{0}{\frac{1}{8}}\right) \\ \text{Page 220 Line -4} \\ Change: & c_{N} = \left(\frac{-5}{0}\right) \\ \text{To:} & c_{N} = \left(\frac{5}{0}\right) \\ \text{Page 220 Line -3} \\ Change: & N = \left(\frac{2 + 1}{4 + 0}\right) \\ \text{To:} & N = \left(\frac{-2 + 1}{-4 + 0}\right) \\ \text{Page 398 Line -12} \\ \text{Change:} & -\nabla f(x) \\ \text{Page 539 Line -14} \\ Change: & y_{j}(w^{T}x_{j} - b) = 1 \end{array} $
Change: $\hat{c}_{N}^{T} = c_{N}^{T} - c_{B}^{T}B^{-1}N = \begin{pmatrix} 0\\ \frac{1}{7} \end{pmatrix}$ To: $\hat{c}_{N}^{T} = c_{N}^{T} - c_{B}^{T}B^{-1}N + \alpha(\Delta c_{N}^{T} - \Delta c_{B}^{T}B^{-1}N) = \begin{pmatrix} 0\\ \frac{1}{7} \end{pmatrix}$ Page 208 Line 2 Change: $\hat{c}_{N}^{T} = c_{N}^{T} - c_{B}^{T}B^{-1}N = \begin{pmatrix} 0\\ \frac{1}{8} \end{pmatrix}$ To: $\hat{c}_{N}^{T} = c_{N}^{T} - c_{B}^{T}B^{-1}N + \alpha(\Delta c_{N}^{T} - \Delta c_{B}^{T}B^{-1}N) = \begin{pmatrix} 0\\ \frac{1}{8} \end{pmatrix}$ Page 220 Line -4 Change: $c_{N} = \begin{pmatrix} -5\\ 0 \end{pmatrix}$ To: $c_{N} = \begin{pmatrix} -5\\ 0 \end{pmatrix}$ To: $c_{N} = \begin{pmatrix} 5\\ 0 \end{pmatrix}$ Page 220 Line -3 Change: $N = \begin{pmatrix} 2 & 1\\ 4 & 0 \end{pmatrix}$ To: $N = \begin{pmatrix} -2 & 1\\ -4 & 0 \end{pmatrix}$ Page 398 Line -12 Change: $-\nabla f(x)$ Page 539 Line -14 Change: $y_{j}(w^{T}x_{j} - b) = 1$
Page 208 Line 2 Change: $\hat{c}_N^T = c_N^T - c_B^T B^{-1} N = \begin{pmatrix} 0\\ \frac{1}{8} \end{pmatrix}$ To: $\hat{c}_N^T = c_N^T - c_B^T B^{-1} N + \alpha (\Delta c_N^T - \Delta c_B^T B^{-1} N) = \begin{pmatrix} 0\\ \frac{1}{8} \end{pmatrix}$ Page 220 Line -4 Change: $c_N = \begin{pmatrix} -5\\ 0 \end{pmatrix}$ To: $c_N = \begin{pmatrix} -5\\ 0 \end{pmatrix}$ Page 220 Line -3 Change: $N = \begin{pmatrix} 2 & 1\\ 4 & 0 \end{pmatrix}$ To: $N = \begin{pmatrix} -2 & 1\\ -4 & 0 \end{pmatrix}$ Page 398 Line -12 Change: $-g(x)$ To: $-\nabla f(x)$ Page 539 Line -14 Change: $y_j(w^T x_j - b) = 1$
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Change: $y_j(w^*x_j - b) = 1$ To: $u_i(w^Tx_i + b) = 1$
$y_{j}(w, w_{j-1}, v_{j}) = 1$
Page 539 Line -12 $\sum_{n=1}^{\infty} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{j=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n$
To: $b = w^T x_j - y_j = \sum_{i \in SV} \alpha_i y_i x_i^T x_j - y_j$ To: $b = y_j - w^T x_j = y_j - \sum_{i \in SV} \alpha_i y_i x_i^T x_j$
Page 547 Lines -11, -12 $b = y_j - w x_j = y_j - \sum_{i \in SV} \alpha_i y_i x_i x_j$
Change: Guignard (1969) is the weakest in the sense that it is not only sufficient
To: but also necessary for the fulfillment of the optimality conditions. Guignard (1969) is not only sufficient but also necessary in some sense
for the fulfillment of the optimality conditions (cf. Gould and Tolle (1971)).
Page 655 Line -13 Change: Lorenz
To: Lorentz

Page 709	Line 3	
	Change:	pp. 1 - 52
	To:	pp. 1 - 51
Page 710	Line 2	
	Change:	Compte Rendu
	To:	Comptes Rendus
Page 739	Line 9 Column 2	
	Change:	Lorenz
	To:	Lorentz