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

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

Page 604   Line 5

Change: $$\beta_\mu = f(x) - \mu \sum_{i=1}^{m} \frac{1}{g_i(x)}$$

To: $$\beta_\mu = f(x) + \mu \sum_{i=1}^{m} \frac{1}{g_i(x)}$$

Page 33   Line -10
Change: 100,000
To: 1,000,000

Page 638   Line -3
Change: x_k
To: x_{k+1}

Page 638   Line -2
Change: λ_1
To: λ_0

Page 638   Line -1

Change: $$x_k = -\frac{\theta Q^{-1}b}{(1+\rho b^T Q^{-1}b)^k} \quad \text{and} \quad \lambda_{k+1} = -\theta\left[\frac{1}{(1+\rho b^T Q^{-1}b)^k} - 1\right]$$

To: $$x_{k+1} = -\frac{\theta Q^{-1}b}{(1+\rho b^T Q^{-1}b)^{k+1}} \quad \text{and} \quad \lambda_{k+1} = -\theta\left[\frac{1}{(1+\rho b^T Q^{-1}b)^{k+1}} - 1\right]$$

Page 389   Exercise 5.16 (i)
Change: sufficient descent condition
To: sufficient decrease condition

Page 112   Line 16
Change: are*adjacent*
To: are *adjacent*

Page 651   Line -16
Change: minimization of the k largest
To: minimization of the sum of the k largest

Page 656   Line 1 of Exercise 8.9
Change: minimization of the k largest eigenvalues
To: minimization of the sum of the k largest eigenvalues

Page 399   Line -11 (Exercise 6.7)
Change: pc
To: p_c

Page 476   Table 13.4
Change:

	Preconditioned				Unpreconditioned	
i	$\|r_i\|$	$\|x_i - x_*\|$		i	$\|r_i\|$	$\|x_i - x_*\|$
0	2×10^0	4×10^{-1}		0	2×10^0	4×10^{-1}
1	1×10^0	4×10^{-1}		1	9×10^{-1}	3×10^{-1}
2	1×10^0	2×10^{-1}		2	4×10^{-1}	2×10^{-1}
3	4×10^{-1}	4×10^{-2}		3	2×10^{-1}	1×10^{-1}
4	3×10^{-2}	3×10^{-3}		4	2×10^{-1}	9×10^{-2}
5	4×10^{-3}	3×10^{-4}		5	1×10^{-1}	5×10^{-2}
6	3×10^{-4}	3×10^{-5}		6	9×10^{-2}	2×10^{-2}
7	1×10^{-5}	2×10^{-6}		7	3×10^{-2}	7×10^{-3}
8	1×10^{-6}	8×10^{-8}		8	2×10^{-2}	3×10^{-3}
9	2×10^{-16}	8×10^{-17}		9	5×10^{-3}	1×10^{-3}
				10	1×10^{-0}	6×10^{-4}
				11	9×10^{-4}	2×10^{-4}
				12	4×10^{-4}	5×10^{-5}
				13	1×10^{-4}	1×10^{-5}
				14	6×10^{-6}	7×10^{-7}
				15	7×10^{-18}	8×10^{-17}

To:

	Preconditioned				Unpreconditioned	
i	$\|r_i\|$	$\|x_i - x_*\|$		i	$\|r_i\|$	$\|x_i - x_*\|$
0	4×10^0	1×10^0		0	4×10^0	1×10^0
1	3×10^0	1×10^0		1	2×10^0	1×10^0
2	3×10^0	6×10^{-1}		2	1×10^0	7×10^{-1}
3	9×10^{-1}	1×10^{-2}		3	1×10^0	5×10^{-1}
4	2×10^{-1}	2×10^{-2}		4	7×10^{-1}	3×10^{-1}
5	3×10^{-2}	2×10^{-3}		5	4×10^{-1}	2×10^{-1}
6	4×10^{-3}	3×10^{-4}		6	3×10^{-1}	8×10^{-2}
7	4×10^{-4}	4×10^{-5}		7	1×10^{-1}	4×10^{-2}
8	4×10^{-5}	3×10^{-6}		8	7×10^{-2}	2×10^{-2}
9	2×10^{-16}	2×10^{-16}		9	3×10^{-2}	8×10^{-3}
				10	1×10^{-2}	3×10^{-3}
				11	6×10^{-3}	1×10^{-3}
				12	2×10^{-3}	3×10^{-4}
				13	5×10^{-4}	7×10^{-5}
				14	8×10^{-5}	1×10^{-5}
				15	2×10^{-17}	2×10^{-16}

Page 435	Line 4 of Exercise 12.16	
	Change:	$x_* = (0.25, -0.75)^T$
	To:	$x_* = (-0.75, 0.25)^T$
Page 436	Line 6	
	Change:	$(0.25, -0.75)^T$
	To:	$(-0.75, 0.25)^T$
Page 541	Line 15	
	Change:	dual problem
	To:	primal problem
Page 489	Exercise 2.2, (ii),(iii), (iv), (v) and (vii))	
	Note:	These problems have nonlinear equalities and require the material of Section 14.4
Page 538	Line -16	
	Change:	an n-dimensional vector ξ
	To:	an m-dimensional vector ξ
Page 16	Line -1	
	Change:	get
	To:	gets
Page 53	Exercise 3.13	
	Change:	for all real number k
	To:	for all real numbers k
Page 290	Line -4	
	Change:	In the current basis $x_{3,4} = x_{4,6} = 15$
	To:	In the current basis $x_{3,4} = x_{4,6} = 10$.
Page 290	Line -3	
	Change:	equal to 15
	To:	equal to 10.
Page 35	Line 12	
	Change:	(a)
	To:	(i)