## 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 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 53              | Line -3<br>Change:   | $f(\alpha(x) + (1 - \alpha)x)$   |
|----------------------|----------------------|--|
| D 59                 | To:                  | $f(\alpha(x) + (1 - \alpha)y)$   |
| Page 53<br>Page 53   | Line -2<br>Character |  |
|                      | Change:              | any local minimizer  |
|                      | IU:<br>Line 1        | any strict local minimizer   |
|                      | Change               | a global minimizer   |
|                      | To.                  | a giobai minimizer   |
| Page 53              | Line_1               | a seriet global minimizer  |
|                      | Insert.              | New sentence at end of line:   |
|                      | moeru.               | Is every local minimizer also a global minimizer?                                    |
| Page 23              | Line -2              |  |
|                      | Change:              | É  |
|                      | To:                  | Ĕ  |
| Page 24              | Line -3              | 20   |
|                      | Change:              | (13.3), (0.31.5)   |
|                      | To:                  | (1, 3.3), (0.3, 1.5)   |
| Page 41              | Line 9               |  |
| -                    | Change:              | Schökopf   |
|                      | To:                  | Schölkopf  |
| Page 41              | Line 16              |  |
|                      | Change:              | Eruditorium  |
|                      | To:                  | Eruditorum   |
| Page 52              | Line -3              |  |
|                      | Change:              | $f(x) = c^T x$ for some vector $c$   |
|                      | To:                  | $f(x) = c^T x + b$ for some vector c and scalar b                                    |
| Page 539             | Line -14             |  |
|                      | Change:              | $y_j(w^T x_j - b) = 1$   |
| D 500                | 10:<br>L: 10         | $y_j(w^T x_j + b) = 1$   |
| Page 539             | Line -12             | T = T  |
|                      | Change:              | $b = w^{-} x_{j} - y_{j} = \sum_{i \in SV} \alpha_{i} y_{i} x_{i}^{-} x_{j} - y_{j}$ |
|                      | To:                  | $b = y_j - w^T x_j = y_j - \sum_{i \in SV} \alpha_i y_i x_i^T x_j$                   |
| Page 709             | Line 3               |  |
|                      | Change:              | pp. 1 - 52   |
|                      | To:                  | pp. 1 - 51   |
| Page 710             | Line 2               |  |
|                      | Change:              | Compte Rendu   |
|                      | To:                  | Comptes Rendus   |
| Page 547             | Lines -11, -12       |  |
|                      | Change:              | Guignard (1969) is the weakest in the sense that it is not only sufficient           |
|                      | Π                    | but also necessary for the fulfillment of the optimality conditions.                 |
|                      | 10:                  | for the fulfilment of the entimality conditions (of Could and Talle (1071))          |
| Page 655<br>Page 739 | Line 12              | for the fulliment of the optimality conditions (cf. Gould and Tone (1971)).          |
|                      | Change:              | Loronz   |
|                      | To.                  | Lorentz  |
|                      | Line 9 Column 2      |  |
| 1 age 755            | Change:              | Lorenz   |
|                      | To:                  | Lorentz  |
|                      |                      |  |

| 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 10    | Line -4       |   |
|            | Change:       | $a_{ij}$  |
| _          | To:           | $a_{ij}x_j$   |
| Page 29    | Line 8        |   |
|            | Change:       | 72 Gy   |
| _          | To:           | 78 Gy   |
| Page 35    | Line 10       |   |
|            | Change:       | 1444 detector pairs   |
| D 110      | 10:           | 2164 detector pairs   |
| Page 148   | Exercise 3.2  |   |
|            | Change:       | Example 5.5   |
| D 100      |               | Example 5.4   |
| Page 160   | Exercise 4.0  |   |
|            | Change:       | Examples 5.7, 5.8 and 5.9   |
| Dago 166   | 10.           | Examples 5.0, 5.7 and 5.8   |
| 1 age 100  | Change        | <i>m</i> .  |
|            | To.           | <i>x</i> <sub>4</sub><br><i>r</i> -   |
| Page 188   | Line 9        | m <sup>2</sup>  |
| 1 4.90 100 | Change:       | maximize  |
|            | To:           | minimize  |
| Page 186   | Line 9        |   |
| 0          | Change:       | $y_i - M$   |
|            | To:           | $M - y_i$   |
| 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:       | $z(\alpha) = -13 + \alpha c_B^T x_B = -13 + 21\alpha$   |
| <b>D</b>   | To:           | $z(\alpha) = -13 + \alpha \Delta c_B^I x_B = -13 + 21\alpha$  |
| Page 398   | Line -12      |   |
|            | Change:       | -g(x)   |
| D 990      | 10:<br>Line 4 | $-\nabla f(x)$  |
| Page 220   | Line -4       |   |
|            | Change:       | $c_N = \begin{pmatrix} -5 \\ 0 \end{pmatrix}$   |
|            |               | $\begin{pmatrix} 0 \\ 5 \end{pmatrix}$  |
|            | To:           | $c_N = \begin{pmatrix} 0 \\ 0 \end{pmatrix}$  |
| Page 220   | Line -3       |   |
| 1 0.800    |               | $\begin{pmatrix} 2 & 1 \end{pmatrix}$   |
|            | Change:       | $N = \begin{pmatrix} 4 & 0 \end{pmatrix}$   |
|            | т             | $\sqrt{-2}$   |
|            | 10:           | $N = \begin{pmatrix} -4 & 0 \end{pmatrix}$  |
| Page 207   | Line 9        |   |
|            | Change        | $\hat{c}^T = c^T - c^T B^{-1} N = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$   |
|            | Change.       | $C_N = C_N = C_B D = 1, -\left(\frac{1}{7}\right)$  |
|            | To:           | $\hat{c}_N^T = c_N^T - c_R^T B^{-1} N + \alpha (\Delta c_N^T - \Delta c_R^T B^{-1} N) = \begin{pmatrix} 0\\1 \end{pmatrix}$   |
|            |               | $\frac{1}{1}  \frac{1}{1}  D  \frac{1}{1}  D  \frac{1}{1}  \frac{1}{7}  \frac{1}{7$ |

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:  $\hat{c}_N^T = c_N^T - c_B^T B^{-1} N + \alpha (\Delta c_N^T - \Delta c_B^T B^{-1} N) = \begin{pmatrix} 0\\ \frac{1}{8} \end{pmatrix}$