Corrections

Integrated Methods for Optimization
by J. N. Hooker

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Page 39, lines 3–7 from bottom. Omit "since y_{A1} has domain $\{0,1\}$." Replace the subsequent text "implies that y_{A1} must select ... reduced to $\{0\}$" with "implies that y_{A1} must select w_{01}, w_{11}, or w_{31} to be equated with z_{A1}. But $z_{A1} = A$, and only the domains of w_{01} and w_{31} contain A. Thus y_{A1} must select w_{01} or w_{31}, and y_{A1}'s domain can be reduced to $\{0,3\}$."

Page 53, last line of Table 2.7. Should be 6 12 14.

Page 58, end of first paragraph. Change "That is, whenever G contains ... from G" to "This is accomplished by first performing a topological sort on the graph. That is, index the nodes so that there is a directed path from node j to node j' if and only if $j < j'$. Then delete any arc (j, j'') such that $j < j' < j''$ for some $j' \in L_{X_i}$."

Page 58, formula (2.36) and the formula following. All occurrences of p_j, p_k should be c_j, c_k.

Page 61, problem 14. Change "$3x_1 + x_2 \leq 15$" to "$3x_1 + x_2 \geq 15$." Change "round down" to "round up."

Page 62, problem 16, line 4. Change "at most k" to "at most K."

Page 83, line 6. Change "$v \geq 10$" to "$v \geq 8x_{B4}$."

Page 138, line 7. Change "$v \geq 9 + 4x_1 + 4x_2$" to "$v \geq 8 + 5x_1 + 6x_2$."

Page 202, Fig. 3.15. Example (b) is wrong. Alldiff filtering removes the same edges as vertex-degree filtering in this example, and in general it subsumes vertex-degree filtering.

Page 209, third formula. Change "$f(1, v_j) = 1$" to "$f(1, v_j) = r_{1j}$".

Page 209, last formula. Change "$b(n, v_j) = 1$" to "$b(n, v_j) = \bar{r}_{nj}$".

Page 210, Table 3.3. Should be

$f(i, v_j)$:

v_j	$i=0$	1	2	3	4	5	6	7
a	0	1	1	1	1	2	2	2
b	0	0	0	1	2	2	2	3
c	0	1	1	1	1	2	2	2

$b(i, v_j)$:

v_j	$i=1$	2	3	4	5	6	7	8
a	4	3	2	2	2	1	1	0
b	3	3	2	2	1	1	1	0
c	3	2	1	1	1	0	0	0

Page 210, line 2 from bottom. Change "$f(4, b) - f(3, b)$" to "$f(3, b) - f(2, b)$".

Page 211, Figure 3.18. Change "$\min\{u_j, r_{ij}\} < \text{front}(Q) - i$" on line 8 to "$\min\{u_j, r_{\text{front}(Q)j}\} < \text{front}(Q) - i + 1$". Change "$\text{front}(Q) - i$" on line 10 to "$\text{front}(Q) - i + 1$".

Page 215, line 8 from bottom. Change "Jobs 2 and 3" to "Jobs 1 and 2."

Page 226, line 3 of formula (3.141). Change "$T_j \geq s_j + p_{x_j j}$" to "$T_j \geq s_j + p_{x_j j} - d_j$."

Page 226, line 2 of formula (3.142). Change "$T_j \geq s_j + p_{ij}$" to "$T_j \geq s_j + p_{ij} - d_j$."

Page 227, line 2 of formula (3.147). Change "T^*_{ik}" to "T^0_{ik}."

Page 240, Lemma 3.51. Change the three occurrences of "$>$" to "$<$."

Page 255, formula (4.10). Change "$r = [-\frac{1}{2} \;\; 0]$" to "$r = [\frac{1}{2} \;\; 0]$." Because $r \geq 0$, the solution $(x_3, x_4, x_1, x_2) = (\frac{1}{2}, 1, 0, 0)$ is already optimal.

Page 257, problem 2. Change "$(\frac{1}{2}, \frac{1}{4}, 0, 0)$" to "$(\frac{1}{2}, \frac{3}{4}, 0, 0)$." Change "$x_1, x_3$" to "$x_2, x_1$." Change $\begin{bmatrix} 2 & 1 \\ -2 & 1 \end{bmatrix}$ to $\begin{bmatrix} -2 & 1 \\ 2 & 1 \end{bmatrix}$.

Page 257, problem 3, after formula (4.16). Change "with A_1" to "with $B^{-1}A_1$." Change $\begin{bmatrix} 1 & 1 & -\frac{1}{2} & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}$ to $\begin{bmatrix} 1 & -\frac{1}{2} & -\frac{1}{2} & 0 \\ 0 & 2 & 1 & 1 \end{bmatrix}$.

Page 281, 4 lines above Theorem 4.8. Change "(c), (d), and (e)" to "(a), (b), and (c)."

Page 289, Corollary 4.15. Change "any unit column" to "any column."

Page 351, problem 6, line 3. Change "$\neg x_3 x_3$" to "$\neg x_3$"

Page 390, formula (4.231), line (e). Remove the term $d_{\max}(1 - \sum_j x_{jk})$.

Page 396, formula (4.240). In line (d), first "=" should be "+." In line (f), add

$$+ \sum_j \sum_{k'<k} x_{jk'k}(r_j + p_j)$$

to the right-hand side of the inequality. In line (g), replace the term

$$d_{\max}\left(1 - \sum_j \sum_{k'<k} x_{jk'k}\right) \quad \text{with} \quad \sum_j \sum_{k'>k} x_{jkk'}(d_j - p_j)$$

Page 396, last formula. Remove both occurrences of $\sum_j$.

Page 397, formula (4.241). Change all occurrences of variable s to t. In line (e), change "$k' < k$" to "$k' > k$" and add "for all j."

Page 406, formula (4.252), line 5. Change "L_2" to "T_2^L."