

**Errata and Supplements to
Matrices and Matroids for Systems Analysis (Springer, 2000)**

- Page VII, line7: Bernhardt \implies Bernhard
- Page 34, line 6: Put . (period) after “Proposition 2.1.2”
- Page 41, (2.16): Entry a_{41} is misplaced. The matrix should be:

$$P_r A P_c = \begin{array}{c} \begin{array}{cc} & \begin{array}{ccccc} C_1 & C_2 & C_3 & C_4 & C_5 \\ 4 & 6 & 5 & 2 & 1 & 3 \end{array} \\ \begin{array}{l} R_1 \\ R_2 \\ R_3 \\ R_4 \\ R_5 \end{array} \end{array} \begin{array}{l} 4' \\ 6' \\ 2' \\ 1' \\ 5' \\ 3' \end{array} \begin{array}{|c|c|c|c|c|} \hline a_{44} & a_{46} & & & a_{41} \\ \hline a_{64} & a_{66} & & & a_{63} \\ \hline & & a_{25} & a_{22} & \\ \hline & & & a_{12} & a_{13} \\ \hline & & & & a_{51} & a_{53} \\ \hline & & & & & a_{33} \\ \hline \end{array} \end{array}$$

- Page 41, last line:
 $C_1 \preceq C_2 \preceq C_3 \preceq C_5, C_4 \preceq C_5 \implies C_2 \preceq C_3 \preceq C_5, C_1 \preceq C_4 \preceq C_5$
- Page 46, Figure 2.2 (poorly printed):
Broken lines should be connected line segments.
- Page 52, line 16 (poorly printed):
 $\mathcal{L}_1 \vee \mathcal{L}_2$ the sublattice generated by $\mathcal{L}_1 \cup \mathcal{L}_2$. The family $\Lambda(V; V_0, V_\infty)$ forms a lattice $(\Lambda(V; V_0, V_\infty), \vee, \wedge)$
- Page 79, lines -5 and -3 : contraposition \implies contrapositive
- Page 142, line 26: $\mathbf{M}_Q \implies \mathbf{M}(Q)$
- Page 142, line -5 : $\mathbf{M}_Q \implies \mathbf{M}(Q)$
- Page 143, line 12: $\partial(M \cap C_Q) \implies \partial M \cap C_Q$
- Page 144, line 5: $\partial(M \cap C_Q) \implies \partial M \cap C_Q$
- Page 288, lines 2 (Theorem 5.2.12): $1 \leq k \leq r - 1 \implies 0 \leq k \leq r$
- Page 387, last line of Remark 6.5.3: contraposition \implies contrapositive
- Page 435, Proposition 7.3.8:
equal to the maximum size \implies equal to twice the maximum size

- Page 455, Ref. 59 (I. S. Duff, A. M. Erisman, and J. K. Reid):
Discrete \implies *Direct*
- Page 455, Ref. 62 (I. S. Duff, R. G. Grimes, and J. G. Lewis):
User's \implies *Users'*
TR/PA/92/86, 1992. \implies TR/PA/92/86, CERFACS, 1992.
- Page 456, Ref. 82 (S. Fujishige):
2nd ed., Elsevier, Amsterdam, 2005.
- Page 456, Ref. 91 (J. F. Geelen):
preprint, 1997. \implies *Combinatorica*, **20** (2000), 61–70.
- Page 456, Ref. 93 (J. F. Geelen, S. Iwata, and K. Murota):
RIMS Preprint No. 1149, Kyoto University, July 1997.
 \implies *J. Combin. Theory*, **B88** (2003), 377–398.
- Page 459, Ref. 139 (S. Iwata):
Erratum in *Combinatorica*, **16** (1996), 449.
- Page 459, Ref. 141 (S. Iwata):
Final form in *Algorithmica*, **36** (2003), 331–341.
- Page 459, Ref. 142 (S. Iwata):
Discrete Mathematics and Systems Science Research Report, Osaka University, in preparation.
 \implies in preparation.
- Page 459, Ref. 146 (S. Iwata and K. Murota):
RIMS Preprint, No. 1113, Kyoto University, 1996.
 \implies *Math. Programming*, **A90** (2001), 353–371.
- Page 461, Ref. 189 (S. B. Maurer):
129–237 \implies 129–137.
- Page 463, Ref. 233 (K. Murota):
(1999) \implies (1998)
- Page 463, Ref. 236 (K. Murota):
L-convex functions and M-convex functions, in: *Encyclopaedia of Optimization* (P. M. Pardalos and C. A. Floudas, eds.), Kluwer Academic Publishers, Boston, 2000, to appear.
 \implies *Discrete Convex Analysis*, SIAM Monographs on Discrete Mathematics and Applications, Vol. 10, Society for Industrial and Applied Mathematics, Philadelphia, 2003.
- Page 464, Ref. 252 (M. Newman):
London \implies New York

- Page 466, Ref. 299 (A. Shioura):
Research Report, No. 21, Dept. Mech. Eng., Sophia University, 1998.
 \implies *IEICE Trans. Fundment. Electr., Comm. Comput. Sci.*, **E83-A** (2000), 586–589.
- Page 467, Ref. 327 (J. W. van der Woude):
 1998. \implies *SIAM J. Control Opt.*, **38** (1999), 1–21.
- Page 468, line 23: (Add the following items)

References added for softcover edition

354. J. Geelen and S. Iwata: Matroid matching via mixed skew-symmetric matrices, *Combinatorica*, **25** (2005), 187–215.
355. N. J. A. Harvey, D. R. Karger, and K. Murota: Deterministic network coding by matrix completion, *Proc. Sixteenth Annual ACM-SIAM Symp. Disc. Algorithms*, (2005), 489–498.
356. N. J. A. Harvey, D. R. Karger, and S. Yekhanin: The complexity of matrix completion, *Proc. Seventeenth Annual ACM-SIAM Symp. Disc. Algorithms*, (2006), 1103–1111.
357. S. Iwata: Linking systems and matroid pencils, *J. Oper. Res. Soc. Japan*, **50** (2007), 315–324.
358. S. Iwata and R. Shimizu: Combinatorial analysis of singular matrix pencils, *SIAM J. Matrix Anal. Appl.*, **29** (2007), 245–259.
359. S. Iwata and M. Takamatsu: Computing the degrees of all cofactors in mixed polynomial matrices, *SIAM J. Disc. Math.*, **23** (2009), 647–660.
360. S. Iwata and M. Takamatsu: Index minimization of differential-algebraic equations in hybrid analysis for circuit simulation, *Math. Programming*, **121** (2010), 105–121.

(end)