

ERRATA

This is the errata sheet for the revised ALAMA, as of 08/01/20. In cases that readers have notified me of errors they have found, I provide attribution and report date. (Thank you, readers!) Those without attribution are due to yours truly.

Chapter 1:

- (1) (9/15/18, Lei Yu) p. 22, Exercise 2: “and and” should be “and $D = \{x \mid x \in \mathbb{Z} \text{ and } x > -1\}$ and”.
- (2) (1/9/20, Shun Zhang), p. 42, line -2 of Algorithm RREF, “ $q = j + 1$ ” should be replaced by “ $q = q + 1$ ”.
- (3) p. 63, Concentration data measurements table: The two entries “1.23” in the first row ($t = 240$) should be replaced by “1.123”.

Chapter 2:

- (1) p. 160, Problem 27: “det =” should be “det M =”.
- (2) (7/30/18, Behzad Omidi Kashani, Foo Chui Chen) p. 168, Example 2.70,
line -1: The matrix L should be
$$\begin{bmatrix} 1 & 0 & 0 \\ -1 & 1 & 0 \\ 1 & 2 & 1 \end{bmatrix}.$$

Chapter 3:

- (1) p. 257, Example 3.50: The fifth corner $(0, 30, 0)$ should be accounted for. The value 3900 of the objective function C at this point is greater than the value of 1900 at $(0, 5, \frac{25}{2})$, so doesn’t affect the example’s conclusion.

Chapter 4:

- (1) p. 288, proof of Theorem 4.2: The first line of this proof should be “If $\|\mathbf{v}\| = 0$, the inequality is obvious, so assume $\|\mathbf{v}\| \neq 0$.”

Chapter 5:

- (1) (08/01/20, Cara Oehlert) p. 379, Example 5.19: The equation

$$\mathbf{w} = \mathbf{e}_3 - (\mathbf{u}_1 \cdot \mathbf{e}_3) \mathbf{u}_1 - (\mathbf{u}_1 \cdot \mathbf{e}_3) \mathbf{u}_2 = \frac{1}{7} (-1, -3, 5)$$

should be

$$\mathbf{w} = \mathbf{e}_3 - (\mathbf{u}_1 \cdot \mathbf{e}_3) \mathbf{u}_1 - (\mathbf{u}_2 \cdot \mathbf{e}_3) \mathbf{u}_2 = \frac{1}{7} (-1, -3, 5).$$

Chapter 6:

- (1) p. 442, Problem 12: Although the conclusion of this Problem (Parseval’s equality) is true, the proof of it requires additional analysis tools that are well beyond the scope of this text. So this problem should be omitted. For more details, consult p. 31 of the text [11] by C. Gasquet and P. Witomski.