

List of corrections

In this document you can find a list of misprints/corrections for the english textbook. If you find any more, feel free to send them to Peter (pabe@dtu.dk). The page and line numbers refer to the english version of the textbook, not the danish one. The danish and english pdf-files of the textbook will not be updated during the semester, so if you have printed some of them there is no need to print any of them again. Only this document may be updated during the semester.

- On page 5, the fourth line from below, the sentence "... and $P \wedge Q$ are always the same!" should have been "... and $P \vee Q$ are always the same!"
- On page 98, right after point (iv) on the middle of the page, the sentence "Now, let use use ..." should have been "Now, let us use ..."
- On page 193, near the bottom of the page the formula starting with " $L_{\mathbf{A}}(\mathbf{u}) = \mathbf{A} \cdot \mathbf{v} = \dots$ " should have been " $L_{\mathbf{A}}(\mathbf{v}) = \mathbf{A} \cdot \mathbf{v} = \dots$ "
- On page 195, towards the end of Example 10.1.2, the two formulas starting with " $L_{\mathbf{A}}(\mathbf{u}) = \mathbf{A} \cdot \mathbf{v} = \dots$ " should have been " $L_{\mathbf{A}}(\mathbf{u}) = \mathbf{A} \cdot \mathbf{u} = \dots$ " and " $L_{\mathbf{A}}(\mathbf{v}) = \mathbf{A} \cdot \mathbf{v} = \dots$ " respectively.
- On page 199 in Example 10.1.5, the sentence "Hence in this example, $\text{null}(\mathbf{A}) = \dim\{\mathbf{0}\} = 0$ " should have been "Hence in this example, $\text{null}(\mathbf{A}) = \dim\{\mathbf{0}\} = 0$."
- On page 213 towards the end of the proof of Lemma 10.3.5, the sentence "and similarly ${}_{\beta}[\text{id}_V]_{\gamma} \cdot {}_{\gamma}[\text{id}_V]_{\beta} = {}_{\beta}[\text{id}_V]_{\gamma} = \mathbf{I}_n$." should have been "and similarly ${}_{\beta}[\text{id}_V]_{\gamma} \cdot {}_{\gamma}[\text{id}_V]_{\beta} = {}_{\beta}[\text{id}_V]_{\beta} = \mathbf{I}_n$."
- On page 250 in Lemma 12.1.3, the formula " $f(x) = e^{\lambda t}$ " should have been " $f(t) = e^{\lambda t}$ ".
- On page 259 in Example 12.2.4, the formula after the sentence "This implies that" should be

$$\begin{bmatrix} c_1 \\ c_2 \\ c_3 \\ c_4 \end{bmatrix} = \begin{bmatrix} 1 \\ 2 \\ 7/2 \\ -1/2 \end{bmatrix}.$$

- On page 268 in Example 12.3.5, the given answer for the first case is wrong. The correct answer is the following:

1. Let us try to find a particular solution of the form $f(t) = at + b$, with $a, b \in \mathbb{R}$. Inserting this in the differential equation, we see that $0 - 5a + 6(at + b) = t$. Hence $6a = 1$ and $-5a + 6b = 0$. We see that $f(t) = t/6 + 5/36$ is a particular solution. Using Example 12.3.2 and Corollary 12.4.2, we conclude that the general solution is given by:

$$f(t) = \frac{t}{6} + \frac{5}{36} + c_1 e^{2t} + c_2 e^{3t}, \quad c_1, c_2 \in \mathbb{R}.$$