ERRATA
NOTES ANALYSIS III

- *p.3 Example 1.7:* Compute L(cosh(at)). The letter h is missing.
- *p.3 Example 1.8:* Three lines from the end of the example, the content of one of the two parentheses is incorrect. It should be

$$\mathcal{L}^{-1}(F) = 2\mathcal{L}^{-1}\left(\frac{s+1}{s^2+2s+26}\right) - 5\mathcal{L}^{-1}\left(\frac{1}{s^2+2s+26}\right)$$

- *p.5, (1.5)* A parenthesis is misplaced. It should be $\mathcal{L}(f^{(n)})(s) =$ ...
- *p.7 Example 1.11 and Example 1.12:* It should be f(t)=u(t-a)-u(t-b) and f(t)=u(t-a)-2u(t-b)+u(t-c) instead of f(x).
- *p.9, first sentence:* "Applying now the Laplace ....and using *s*-shifting." should be "Applying now the Laplace ....and using *t*-shifting."
- *p.10, fourth line:* $\mathcal{L}(g(x))$ should be instead $\mathcal{L}(g(t))$.
- *p.12, Definition 1.17:* There was a missing a limit in the definition of the Dirac function.
- *p.12, line -2:* The beginning of the proof has been changed.
- *p.12, next to the last line in the verification:* There was a typo in the exponent.
- *p.13, (1.16) and (1.17):* A parenthesis has been changed in the middle term of each formulas.
- *Ex. 1.19:* There is a more explicit formula for the solution.
- *p.16 (1.19):* The convolution sign inside the integral is a typo and should be just the usual multiplication. Likewise in two similar integrals in the same exercise.
- *§1.8, first line:* "... of the derivative of of the integral..." should be "... of the derivative or of the integral..."
- *Property 8:* The equality in the statements are reversed.
- *Last formula in the verification pf Property 8:* There are some terms missing in the integral and the first integral is incorrect.
- *Example 2.4 (1) and (2):* The statement about the period has been improved.

- *Verification of Property 6 (2)* In the fourth line of the displayed equation the s at the end of the line should be in the exponent.
- *End of Example 1.19* Remove the last formula for y, the one in three cases. It is nonsensical, it was an accidental copy and paste.
- *Remark 2.3:* The middle sentence has been added.
- *Example 2.6:* In the third line in the formula for b_m, the sign before $\cos\left(\frac{m\pi}{2}x\right)|_{-2}^{0}$ should be a $+$ rather than a $-$.
- *Example 2.11:* There is a coefficient 2 missing in the formula for a_n.
- *§2.3:* Remark and example added at the end of the section (consequently all numeration in Chapter 2 shifts by two).
- *Theorem 2.15 (old Theorem 2.13):* The lower limit in the integral should be $-\pi$ rather than π.
- *Section on the Fourier Integral:* The formulas have been slightly reorganized and colors have been added. The definition of "absolute continuity" has been slightly expanded. The typo "discontituous" has been corrected.
- *Section on the Fourier Transform:* An underbrace has been added, the lower limit of the several integrals has been corrected from $-\infty$ to ∞.
- *Next to the last example in §2.6* A missing $-$ sign has been added in the exponent in the second integral.
- *Example 3.3:* $= 0$ has been added in the second equation.
- *Condition (2) after (3.1):* The sign of A has been corrected.
- *Formula (3.2):* it has been slightly reformulated.
- *Example 3.7:* The displayed equations for ϕ and ψ were missing the $''$.
- *After Example 3.7:* "As the words says" has been corrected into "As the words say".
- *Superposition Principle:* "homonegeous" has been corrected to "homogeneous". Same right after the S.P.
- *Condition (1) in §3.2:* "and every point on the string moves only vertically" has been added at the end.
- *Condition (2) in §3.2:* "and offers no resistance to bending" has been added at the end.
- *Condition (3) in §3.2:* Spelling of "negligible" corrected.
- *§3.2:* The points are now called $P(x)$ and $Q(x + \Delta x)$, and the tension applied at these points is now T_P and T_Q (rather than T_x and $T_{x+\Delta x}$.
- *Right before (3.4):* "if ρ is the mass of the (undeflected) string per unit length".

- *Right before* §*3.3.1:* "intermediary" added in 2..
- *Paragraph after (3.6):*"We need however...k." replaced by "The type of solutions will depend on the sign of k."
- *(3.11):* A cos in the next to the last line should have been sin.
- *Example 3.9:* Figure added.
- §*3.4:* The section has undergone considerable changes: the formula 3.12 has now a number (which implies that all subsequent formulas have a shift in numbering); a comment about the normal forms has been added; a theorem has been added before the old Example 3.11 and the part before the theorem has been reformulated; a remark has been moved and the pictures have been ameliorated (and the use of a color printer is now a bit more useful than before).
- *p. 54, l.4:* "positioned"
- *end of the first paragraph of* §*3.5:* Explanation of what is c.
- *p.57, l.10:* "(homogeneous)" added
- *p.59, l. 4:* The exponent has a $-$ sign.
- *p.65, l.-3:* The formula for $f(x,y)$ had the m and n and a and b exchanged.
- *p.65 l.-1:* The formula for $K_m(y)$ had the a and b exchanged.
- *p.67, l.2:* A Backslash was missing.
- *p.70:* Footnote added and limits of integration adjusted.
- *p.72, l.14:* $\frac{1}{2\pi}$ added.