A List of Misprints for "Lecture Notes on Functional Analysis"

Alberto Bressan, *American Mathematical Society*, 2013.

- p. 21, line - 8: replace the subscript k_n with n_k.

- p. 25, formula (2.21). Replace with

$$A_k \doteq \Big\{x \in \Omega\,;\ \ |x| \leq k,\ \ B(x, k^{-1}) \subseteq \Omega\Big\}$$

  where $B(x, k^{-1})$ is the open ball centered at x with radius k^{-1}.

- p. 46, line 7. Better notation: $|f_N(y) - f(y)| < \varepsilon/3$ for every $y \in E$.

- p. 52, line 2. Should be: $\mathrm{Im}(f) = \dfrac{f - \bar{f}}{2i}$.

- p. 52, line 12. Replace $\overline{A}$ with $\overline{\mathcal{A}}$.

- p. 56, line 9: $\Omega \subseteq I\!R^n$.

- p. 58, line -1: $h_1, \ldots, h_N$

- p. 64, **Corollary 4.5.** "$\Lambda : X \mapsto Y$ is a linear continuous bijection"

- p. 65, line 13: "consisting of all bounded, continuously differentiable functions..."

- p. 75, last line: "Namely, the closure of each set $S_n \doteq \{y \in Y\,;\ \|y\|_Y \leq n\}$ is a nowhere dense subset of X."

- p. 98, line 3: should be $G(v_1, \ldots, v_n)$

- p. 102, line 10: "Pythagoras' theorem"

- p. 110, lines 12-13: Replace by:

$$H_0^\perp \cap \widetilde{H}^\perp \ \subseteq\ H_0^\perp \cap H_0 \ =\ \{0\},$$

proving that $span(H_0 \cup \widetilde{H})$ is dense in H.

- p. 118, line 12: "the family $\{e^{tA}\,;\ t \in I\!R\}$"

- p. 122, line 6 from bottom: should be: $\lim_{h\to 0+} \left\{ S_{t-h}\left(\frac{S_h\bar{u}-\bar{u}}{h}\right) - S_tA\bar{u}\right\}$.

- p. 125, line 7: $u(\tau) \ \approx\ E^-_{\tau/n}\circ\cdots\circ E^-_{\tau/n}\bar{u} \ =\ \cdots$"

- p. 126, last line: $R_\lambda R_\mu \ =\ \dfrac{R_\lambda - R_\mu}{\mu-\lambda} = \dfrac{R_\mu - R_\lambda}{\mu-\lambda} = R_\mu R_\lambda\,.$

- p. 127, line 9: $\cdots \le \displaystyle\int_0^\infty e^{-t\lambda}\|S_t\|\,\|u\|\,dt \le \cdots$

- p. 133, formula on line 5: $Bu = \lim_{t\to 0+} \dfrac{S_tu-u}{t}$

- p. 134, line 9: "depending only on ω, θ, and t."

- p. 170, line 5 from bottom: "The product of the remaining $n-1$ factors"

- p. 177, formula (8.76), second line: $\Big(\|u_{m_j} - u^\varepsilon_{m_j}\|_{\mathbf{L}^q} + \|u_{m_j} - u^\varepsilon\|_{\mathbf{L}^q}$

- p. 194, last line: $\displaystyle\int_0^\pi \big(2u\,\cos 2x\big)_x\,dx.$

- p. 200, line 20-21: "the coefficients a^{ij} and b^i satisfy the stronger regularity conditions $a^{ij}, b^i \in W^{1,\infty}(\Omega)$."

- p. 207, formula (9.67) should be: $Lu \ =\ -\displaystyle\sum_{i,j=1}^n (a^{ij}(x)u_{x_i})_{x_j}\,.$

- p. 207, replace g and h respectively by f and g, in (9.71) and (9.72).

- p. 230, line 5 from bottom: "we can choose $\rho > 0\ldots$"

- p. 232, line 6: should be: $\int_{B(x,\varepsilon)} J_\varepsilon(x-y)f(y)\,dy$.