

Errata for the book
Differential Equations Driven by Routh Paths

Lecture Notes in Mathematics 1908, Springer Verlag

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Lecture notes by Thierry Lévy and Michael J. Caruana

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Chapter 1

- p. 3, line -11: *a convex subset* should be *a closed convex subset*.
- p. 12, line 10: ζ is the classical ζ function, as explained p. 49, line -2.
- p. 15, line 2: *compact* should be *relatively compact*.
- p. 22, line 15: $\sum_{n=1}^N \frac{C_n^2 + S_n^2}{2\pi n}$ should be $\sum_{n=1}^N \frac{C_n^2 + S_n^2}{4\pi n}$.

Chapter 2

- p. 34, line -5: $\sigma(s)$ should be $\sigma(r + s)$.
- p. 35, line 7 of the proof of Corollary 2.16: the second $\pi_n(\mathbf{s}_1)$ should be $\pi_n(\mathbf{s}_2)$.
- p. 38, line 4: $\pi_n(a)$ should be $\pi_n(\mathbf{a})$.

Chapter 3

- p. 43, line 8: *signature of X* should be *signature of x*.
- p. 45, line 6: of the third paragraph: *with respect to X* should be *with respect to x*.
- p. 47, line 11: *finite $\frac{n+1}{p}$ variation* should be *finite $\frac{p}{n+1}$ variation*.
- p. 50, after *On the other hand*, the equality should be

$$\begin{aligned} \widehat{X}_{s,t}^{\widehat{D}} - \widehat{X}_{s,t}^D &= \widehat{X}_{s,t_1}^{\widehat{D}_0} \otimes \cdots \otimes \widehat{X}_{t_{r-1},t}^{\widehat{D}_{r-1}} - \widehat{X}_{s,t_1} \otimes \cdots \otimes \widehat{X}_{t_{r-1},t} \\ &= \sum_{j=0}^{r-1} \widehat{X}_{s,t_1}^{\widehat{D}_0} \otimes \cdots \otimes \widehat{X}_{t_{j-1},t_j}^{\widehat{D}_{j-1}} \otimes (\widehat{X}_{t_j,t_{j+1}}^{\widehat{D}} - \widehat{X}_{t_j,t_{j+1}}) \\ &\quad \otimes \widehat{X}_{t_{j+1},t_{j+2}} \otimes \cdots \otimes \widehat{X}_{t_{r-1},t}. \end{aligned}$$

- p. 50, line -3: $X^D - X^{\tilde{D}}$ should be $\widehat{X}_{s,t}^D - \widehat{X}_{s,t}^{\tilde{D}}$.
- p. 55, line -4: $T^2(R^d)$ should be $T^{(2)}(R^d)$.

Chapter 4

- p. 64, line 14: $2Cn^{-\alpha}|t - s|$ should be $2Cn^{-\alpha}|t - s|^{1+\alpha}$.
- p. 64, line -6: the r.h.s. of (4.4), $2^{1+\alpha}(\zeta(1 + \alpha) - 1)\|h\|_{\text{Lip}(\alpha)}|t - s|^{1+\alpha}$, should be $[1 + 2^{1+\alpha}(\zeta(1 + \alpha) - 1)]\|h\|_{\text{Lip}(\alpha)}|t - s|^{1+\alpha}$.
- p. 66, line -3: the r.h.s. of (4.6), now $2^\theta(\zeta(\theta) - 1)\omega(s, t)^\theta$, should instead be $[1 + 2^\theta(\zeta(\theta) - 1)]\omega(s, t)^\theta$.
- p. 66, line -1: *finer than* should be *the common refinement of*.
- p. 71, line -6: v_{1,k_n} should be v_{n,k_n} .
- p. 73, line -6: $\|R_0(x, y)\| \leq \|\alpha\|_{\text{Lip}}\|x - y\|$ should be $\|R_0(x, y)\| \leq \|\alpha\|_{\text{Lip}}\|x - y\|^\gamma$.

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