Errata for
"An Introduction to
Infinite-Dimensional Differential Geometry"

The list below collects errata and misprints for the first edition of "An Introduction to Infinite-Dimensional Differential Geometry" published by Cambridge University Press.

Last changes: June 12, 2023

- p.4 Theorem 1.7: Though not strictly an error, it would be prudent to stress that the two points should be distinct. Change the last sentence to
  ..., that is, for each pair $x, y \in E, x \neq y$ *there exists a continuous linear* $\lambda\colon E \to \mathbb{R}$ *such that* $\lambda(x) \neq \lambda(y)$.
- p.10 proof of 1.20: $E \times F$ should be $E_1 \times E_2$ and H in the definition of I_i should be F.
- p.12 proof of Lemma 1.25, line 5: missing t_n^{-1} between the limit and the bracket.
- p.18 proof of 1.39 line 4 of the proof $V_\phi\colon F \to V_\phi$ should read $V_\phi \cap F_\phi \to V_\phi$.
  line 8 of the proof $f^{-1}(U_\phi)$ should be $f^{-1}(U_\phi \cap N)$. In this and the next line the spaces F should be F_ϕ.
- p.19 Lemma 1.41 proof of (b) the Formula should read
  $$h_\psi \circ h_\phi^{-1}(y) = ... = d(\psi \circ \phi^{-1})(p_\phi; y).$$
- p.20 l.3 in the displayed formula replace v with y.
- p.62, 3.31.: The definition of the logarithmic derivative is missing an inverse. It should read
  $$\delta^\ell(c)\colon [a,b] \to \mathbf{L}(G), t \mapsto T\lambda_{c(t)}^{-1}(\dot{c}(t)).$$
- 4.17: S_2 and $S_{U,2}$ are the same map, so S_2 should be relabeled $S_{U,2}$.
- p. 123, Exercise 6.1.1 (b) the set should read $\overline{\{y \in M \mid h(y) \neq y\}}$ instead of $\overline{\{y \in M \mid h(x) \neq x\}}$.
- p. 139, the integral in the statement of 7.2 should be $\int_0^1$ not $\int_a^b$. In the proof it should rather be $g(q(s,\cdot))$ instead of $g(q(s))$ and after the first equality of the displayed equation in the proof, the first term should read $g_U(c(t), B_U(c(t), c'(t), c'(t)), h(t))$.
- p. 140, the integrals should be $\int_{\mathbb{S}^1}$ instead of $\int_{\mathbb{S}^1}^1$