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.

Special thanks go to S. Stroppel and T. Nilssen who made me aware of many of the errors compiled below. **Last changes: June 20, 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 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 $\mathrm{En}(q(s, \cdot))$ instead of $\mathrm{En}(q(s))$. In the displayed equation: c, h in the first term of the first line should be $c(t)$ and $h(t)$, after the first equality, term in the integral 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 $\int_{\mathbb{S}^1}^1$

- p. 188, 2nd line of (d): It should be $\alpha^{-1}(U)$ instead of $\alpha^{-1}(U \times U)$, last line of (g) after the first inclusion the w should be a capital W.

- p. 189, end of second line of the proof of A.10 should read $-\lambda N \cap \lambda N \subseteq M$. Delete the sentence starting with "By Lemma A.2(c)..."