

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 4, 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 $\lambda: E \rightarrow \mathbb{R}$ 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 $V_\phi: F \rightarrow V_\phi$ should read $V_\phi \cap F_\phi \rightarrow V_\phi$.
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

$$h_\psi \circ h_\phi^{-1}(y) = \dots = d(\psi \circ \phi^{-1})(p_\phi; y).$$

- p.20 1.3 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

$$\delta^\ell(c): [a, b] \rightarrow \mathbf{L}(G), t \mapsto T\lambda_{c(t)}^{-1}(\dot{c}(t)).$$

- p. 123, Exercise 6.1.1 (b) the set should read $\overline{\{y \in M \mid h(y) \neq y\}}$ instead of $\overline{\{y \in M \mid h(x) \neq x\}}$.