

## Chapter 3

- Notational inconsistency. Section 3.1, page 53: “there is a designated set  $U_x$  in  $\mathbf{X}$  with  $x \in U_x$  such that  $f(U_x) \subset V$ .” Here, the  $\mathbf{X}$  should be in math font, i.e.  $\mathbf{X}$ .
- Possible undesirable formatting. Section 3.1, page 55: in the statement of theorem 3.1 (“Let  $\{U_i\}_{i=1}^n$  be a finite collection of open sets”), “finite” is not italicized, whereas the surrounding text is. This is likely due to the use of `\emph` inside an italicized environment. While this is indeed the expected behavior, it might be worth considering using boldface instead to emphasize finite.

## Chapter 11

- Simple typo. Section 11.4, page 194: “Intuitively, we know what **at** hole is.” Should be “what **a** hole is.”
- Ambiguous parse structure. Section 11.4, page 194: “Another category of theorem we will prove is fixed point theorems.” While this sentence is grammatically correct if parsed as “Another (category of (theorem we will prove)) is (fixed point theorems),” it is easy for a first-time reader to parse the sentence as “Another (category of theorem) we will prove is (fixed point theorems),” which I think has a number agreement error (“category of theorem” is singular, “is” is singular, “fixed point theorems” is plural — easy to not realize “fixed point theorems” is the title of the category). Not sure if this is actually a problem though.
- Number agreement error. Section 11.4, page 195: “Another type of theorem that we will prove **are** theorems about geometric separation.” This is sort of the dual of the part above — “type of theorem that we will prove” is singular no matter how you parse it, “are” is plural.

## Chapter 12

- Notational error. Exercise 12.1, page 199: “Show that the torus  $\mathbf{T}^2$  is homeomorphic to  $\mathbb{S}^1 \times \mathbb{S}^1$ .” Torus should be denoted  $\mathbb{T}^2$ .
- Possible error. Section 12.1, page 201 — “The basis for the topology is the collection of **open cones** with the cone point at the origin.” I believe this should be double cones?
- Possible grammatical error. Exercise 12.3.2, page 201 — “Show that  $\mathbb{RP}^2$  is also homeomorphic to a disk with two edges on its boundary (called a **bigon**), identified as indicated in Figure 12.7.” The comma should not appear — removing the parenthetical expression, the comma creates an ungrammatical sentence.