

Errata for *Introductory Lectures on Equivariant Cohomology*

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October 17, 2021

- p. 7, line 5: “containing $f(y)$ ” should be “containing $f(x)$ ”.
- p. 22, bottom line: “ $h \in G$ ” should be “ $h \in H$ ”.
- p. 29, last sentence before §4.1: “abbreviate” should be “abbreviate”.
- p. 83, eq. (10.1): the initial $-$ sign should be $+$.
- p. 107, proof of Cor. 13.8, line 1: “the lemma” should be “Proposition 13.6”.
- p. 111, line following fourth display: Delete the extra “the” in the sentence “ $F(h, a)$ is continuous on its domain”
- p. 119, Th. 14.5: Rewrite the hypothesis as “If $\omega, \tau \in \dots$ are homogeneous”.
- p. 123, first display: “ $\sum_{i,j}$ ” should be “ \sum_k ”.
- p. 132, Prop. 16.8: The proposition should end with a period, not a comma.
- p. 148, proof of Prop. 18.8, first line: Delete of the repeating “to”s.
- p. 156, last display above §19.4: “ x_i ” should be “ X_i ”.
- p. 157, proof of Th. 19.2, add a new paragraph at the beginning: Let $W^{p,q} = \bigwedge^p(\mathfrak{g}^\vee) \otimes S^q(\mathfrak{g}^\vee)$. In this proof, we define the temporary degree of an element of $W^{p,q}$ to be $p + q$, instead of the usual $p + 2q$, and we define W^m to be $\bigoplus_{p+q=m} W^{p,q}$. Then W^0 is the same whether with respect to the usual degree or the temporary degree and $W^+ = \bigoplus_{m>0} W^m$ is also the same, so that if the statement of the theorem is true with respect to the temporary degree, it is also true with respect to the usual degree. The Weil differential δ and the cochain homotopy K will both have temporary degree 0, but this is fine. Cohomology is still defined to be $\ker \delta / \text{im } \delta$. In the following proof, the “degree” means the “temporary degree.”
- p. 157, first line of third paragraph: Change “degree +1 and -1 respectively” to “degree 0”.
- p. 157, bottom line: “ $W_{\mathfrak{g}}$ ” should be “ $W(\mathfrak{g})$ ”.
- p. 159, third paragraph, line 3: $\partial = \delta \otimes 1 + (-1)^{\deg \alpha} 1 \otimes d$ on $\alpha \otimes \omega$
- p. 169, in (5) after equation (21.4): “ $H_i(\theta_i) = 0$ ” should be “ $H(\theta_i) = 0$ ”.
- p. 170, line 2 in (3): Delete “and $\iota_i^2 = 0$ ”.
- p. 172, Proposition 21.2 (i), line 2: “degree -1 ” should be “degree $+1$ ”.
- p. 172, Proof of Proposition 21.2 (i), line 2: “degree -1 ” should be “degree $+1$ ”.
- p. 173, the line above Definition 21.3: $\mathfrak{g}^\vee \rightarrow V$ should be $\mathfrak{g} \rightarrow V$.
- p. 175, Section 21.6, line 2: “adjoint” should be “coadjoint”.

- p. 175, bottom display: " $u_n^{i\ell}$ " should be " $u_\ell^{i\ell}$ ".
- p. 198, Example 24.4, last line: "not free" should be "not free for $n > 1$ ".
- p. 264, first displayed equation: $\delta = \delta \otimes 1 + (-1)^{\deg \alpha} 1 \otimes d$ on $\alpha \otimes \omega$.
- p. 290, solution to Problem 7.1, first display: " $F_G([e, m])$ " should be " $F_G([e, m], t)$ ".
- p. 290, second to last line : " $f \circ g$ " should be " $f \circ h$ ".
- p. 292, solution to Problem 11.3, line 3 of display: " e^{-tA} " should be " e^{-tA} ".
- p. 293, second to last line: " $(\sum u^I +$ " should be $\sum (u^I +$ ".