

Algebraic K-Theory and its Applications

by Jonathan Rosenberg

Mistakes and Misprints in the First Printing (Corrected in the Second Printing, 1996)

I am quite grateful for the opportunity to have corrected a few mistakes in the second printing. I thank several colleagues for their comments on this book, and especially thank Bruce Blackadar, Andreas Rosenschon, and Dan Voiculescu for their corrections.

Chapter I

page 37. In the statement of Lemma 1.6.7, the condition should read:

$$\|p - q\| < \min(\|p\|^{-2}, \|q\|^{-2}).$$

The second sentence of the proof should read: Since $\|p - q\| < \|p\|^{-2}$, multiplying by p on the both sides gives $\|p - pqp\| < 1$, and similarly $\|q - qpq\| < 1$.

page 38. Because of the above change in Lemma 1.6.7, the second sentence of the second paragraph of the proof of Corollary 1.6.8 has to be changed. It should now read: Choose C so that $\|\varphi_t(p)\| < C$ for all t . We may partition the interval $[0, 1]$ into subintervals such that $\|\varphi_t(p) - \varphi_s(p)\| < C^{-2}$ for all t, s in the same subinterval.

Chapter II

pages 66–69. In the displayed matrix in the middle of the page, there are $i - 1$ rows before the row starting with b_i^{-1} . Thus there is a sign error in the formula at the very bottom of page 66; $(-1)^i$ should be changed to $(-1)^{i-1}$. This error propagates through the rest of the proof, but it should be easy for the reader to make the necessary sign changes.

Chapter III

page 111. In line 23, “simple modules” should be changed to “simple objects.”

page 125. In line 4 of the proof of Corollary 3.1.16, “with P surjective” should be instead “with P projective”.

Chapter IV

page 198. In line 2 of Example 4.2.19, replace “Definition 4.2.12” by “Example 4.2.13”.

page 232, middle of the page. In line 2 of the paragraph beginning “Next we observe”, “clas” should be “class”.

page 233, middle of the page. The word “elemnts” should be “elements”.

Chapter VI

page 357. The last sentence of the proof of Corollary of 6.3.12 should be changed to read as follows: Now $ep = p$ and $pe = e$, so right multiplication by p gives an isomorphism $Ae \rightarrow Ap$, with inverse given by multiplication by e .

page 361. The end of Remark 6.3.17 should read as follows: For a while it was an open problem as to whether any simple unital C^* -algebra must contain a projection other than 0 and 1, and Theorem 6.3.15, first proved by Mihai Pimsner and Dan Voiculescu by another method, provided one of the first examples where the answer is “no.” That this would be such an example was first conjectured by Richard Kadison. The proof of Connes is based on earlier ideas of Joachim Cuntz.

References

pages 369–370. A few references were incomplete because of bugs in the \TeX macros. The date for the Chelsea reprint of [Gauss] is 1981. The reprint of [Hungerford] is vol. 73 of the Graduate Texts in Math., 1992. The date of the English edition of [SerreTrees] is 1980.