

Errata to "Characters of Groups and Lattices over Orders

page 30: line 4 of proof of Corollary 1.2.34: $\dots \text{Hom}_A(\bigoplus_{i=1}^m \bigoplus_{j=1}^{n_i} S_j, S_i)$

page 43: Exercise 1.12: a and b should be non zero. Moreover, the last equation on the right column should be $jk = -kj = -bi$. The double equation signs are not useful.

page 48 line 2 of Corollary 2.2.2: $\chi_V(e) = \dim(V) \dots$

page 59, end of Section 2.3:

Lemma 2.3.10: For every normal subgroup N of a finite group G there are irreducible complex characters $\chi_1 \dots, \chi_s$ of G such that $N = \bigcap_{i=1}^s \ker(\chi_i)$.

Proof: First, for any character χ of G which is afforded by a representation $\varphi : G \rightarrow GL(V)$ we get $\ker(\varphi) = \ker(\chi)$ by Lemma 2.1.4.3. The group homomorphism $G \rightarrow G/N$ gives a structure of a $\mathbb{C}G$ -module to $\mathbb{C}G/N$. Let χ_N be its character. Then $\ker(\chi_N) = N$, as it is easily seen by the above equality. Further, if $\chi_N = \sum_{\chi \in \text{Irr}_{\mathbb{C}}(G)} n_{\chi} \chi$, using Lemma 2.1.4.3. again, we obtain

$$N = \ker(\chi_N) = \bigcap_{\chi \in \text{Irr}(G); n_{\chi} \neq 0} \ker(\chi),$$

which proves the lemma.

page 64 last line: $C_G(c)$ contains P .

page 91 line 5: Put $X = C_3^2$ and compute $c_{X,X}^X$. (thanks to Burkhard Külshammer)

page 130 line 11: $S \downarrow_H^G$

page 132 line 21: $T' \uparrow_{I_G(T)}^G$ and $T'' \uparrow_{I_G(T)}^G$

page 226 line -12: $a \in R$

page 255 line 13: $\wp_1^2 = 2R$.

page 289: Section title 8.3.2: The Auslander-Goldman theorem

Actually, Theorem 8.3.20 was proved by Auslander and Goldman as Theorem 2.3 in: Maurice Auslander and Oscar Goldman, Maximal Orders; Transactions of the American Mathematical Society **97** (1960) 1-24. The reference in the statement should be corrected, such as on page 296 and 304.

page 290 line 18: $\text{rad}(\Lambda/P) = 0$.

page 291 line 8: $\mathcal{O}_{\ell}(T)$

page 294 line -11: Since $rS = 0$

page 298 line 8: ... R -orders Λ in a semisimple ...

page 301 line -6: Consider the group $K_0(\Lambda)$, generated by projective Λ -modules and defined by the analogous relations as $G_0(\Lambda)$.

page 306 line -8, -7 : $U(\Lambda)$ and $\widehat{U}(\Lambda)$ instead of $U(A)$ and $\widehat{U}(A)$.

page 307 line 13: $\widehat{U}(\Lambda)$ is called the group of unit idèles.

page 307 statement of Theorem 8.5.10 and its proof : replace $U(A)$ and $\widehat{U}(A)$ by $U(\Lambda)$ and $\widehat{U}(\Lambda)$.

page 311 statement and proof of Corollary 8.5.12: replace $\widehat{U}(A)$ by $\widehat{U}(\Lambda)$.