

ERRATA

Correction to

ON AUTOMORPHISMS OF SEPARABLE ALGEBRAS

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A. Magid has pointed out to us that Lemma 1.8 of [1] is not correct. In [2], Hochschild proves that in any simple algebra over a field every element is a sum of units. It is an elementary exercise to verify that in a finite direct sum of simple algebras every element is a sum of units if and only if at most one of the simple algebra summands is the field $Z/(2)$ of two elements. We thus have the following correction of Lemma 1.8.

LEMMA 1.8'. Let A be a separable algebra over the semi-local ring K , then every element in A is a sum of units if and only if every element in $A/\text{Rad}(A)$ is a sum of units.

The proof of Lemma 1.8' is the same as the proof of Lemma 1:8 which appears in [1]. Let $Z_{(2)}$ be the localization of the integers at the prime (2), then the ring of integers A over $Z_{(2)}$ in $Q(\sqrt{17})$ is a separable $Z_{(2)}$ -algebra with no idempotents but 0 and 1 but $A/\text{Rad}(A) \cong Z/(2) \oplus Z/(2)$ so A is not generated by its units. These facts may be found on page 234-36 of [3]. It is therefore necessary to modify the definition of regular ring given in paragraph 2 on page 30 of [1] in order that Theorem 2.1 R be correct. If A is a separable, finitely generated, projective R -algebra and the center of A is K then an R -subalgebra B of A is called regular in case B is separable over R , the only idempotents in the center of $B \otimes_{B \cap K} K$ are 0 and 1, and every element in B is a sum of units in B .

BIBLIOGRAPHY

1. L. N. Childs and F. R. DeMeyer, *On automorphisms of separable algebras*, Pacific J. Math. **23** (1967), 25-34.
2. G. Hochschild, *Automorphisms of simple algebras*, Trans. Amer. Math. Soc. **69** (1950), 292-301.
3. E. Weiss, *Algebraic number theory*, McGraw-Hill (1963).

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