ERRATUM FOR “FINITE GENERATION OF SYMMETRIC IDEALS”

MATTHIAS ASCHENBRENNER AND CHRISTOPHER J. HILLAR

We correct a minor misstatement in the paper [1]. What is referred throughout as the “group ring” should instead be replaced by the “skew group ring” [2, p. 13]. Specifically, the ring $R[S_X]$ should be replaced with $R \ast S_X$. This ring is formally the set of all finite linear combinations,

$$ R \ast S_X = \left\{ \sum_{i=1}^{m} r_i \sigma_i : r_i \in R, \sigma_i \in S_X \right\}. $$

Multiplication is given by $f \sigma \cdot g \tau = f(\sigma g)(\sigma \tau)$ for $f, g \in R$, $\sigma, \tau \in S_X$, and extended by linearity. The natural multiplication in $R[S_X]$ does not make $R$ into an $R[S_X]$-module as claimed in [1], which is why one must use $R \ast S_X$ instead.

This change affects none of the results in the paper since the multiplicative structure of $R[S_X]$ was never used except to simplify the statement of our main result [1, Theorem 1.1]. The proper statement is as follows.

**Theorem 0.1.** Every ideal of $R = A[X]$ invariant under $S_X$ is finitely generated as an $R \ast S_X$-module. (Stated more succinctly, $R$ is a Noetherian $R \ast S_X$-module.)

We thank Seth Sullivant for pointing out this mistake to us.

REFERENCES


DEPARTMENT OF MATHEMATICS, UNIVERSITY OF CALIFORNIA, LOS ANGELES, CALIFORNIA 90095

E-mail address: matthias@math.ucla.edu

MATHEMATICAL SCIENCES RESEARCH INSTITUTE, 17 GAUSS WAY, BERKELEY, CALIFORNIA 94120

E-mail address: chillar@msri.org

Received by the editors February 5, 2009.

2000 Mathematics Subject Classification. Primary 13E05, 13E15, 20B30, 06A07.

The first author was partially supported by the National Science Foundation Grant DMS 03-03618.

The work of the second author was supported under a National Science Foundation Graduate Research Fellowship.

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