ERRATUM FOR “FINITE GENERATION OF SYMMETRIC IDEALS”

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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.)

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REFERENCES


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