ERRATUM

Erratum to: On the length of arithmetic progressions in linear combinations of S -units

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In formulating Lemma 2.1 in the original paper, a result of Amoroso and Viada [1] is interpreted in a wrong way. We are grateful to Kálmán Győry for calling our attention to this error. The correct formulation of the lemma is the following.

Lemma 2.1. *Equation (2.1) has at most $C(k, r) := (8k)^{4k^4(k+r^k+1)}$ nondegenerate solutions $(x_1, \dots, x_k) \in \Gamma^k$.*

Proof. Since the rank of Γ^k is at most r^k , this is an immediate consequence of Theorem 6.2 in [1], indeed. $\square$

Unfortunately, this error affects the bound in Theorem 1.1 in the original paper. Now we give a correct formulation of this result and indicate the main changes in the proof (which are only technical ones).

Theorem 1.1. *We have*

$$L < \exp \left((8(n+t+r))^{8(2r+2)^{2t+2}} \right).$$

Proof. The change in Lemma 2.1 implies simple automatic changes in the proof. These lead to the correct form of (2.4), given by

$$|\mathcal{I}| < n^t 2^{t+1} (8(t+1))^{4(t+1)^4(t+(r+s)^{t+1}+2)}.$$

Then, at the end of the proof making the choice $s = r + 2$, the statement follows by a simple calculation. $\square$

The online version of the original article can be found under doi:[10.1007/s00013-010-0111-7](https://doi.org/10.1007/s00013-010-0111-7).

Reference

- [1] F. AMOROSO and E. VIADA, Small points on subvarieties of a torus, *Duke Math. J.* **150** (2009), 407–442.

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