

# ON TORSION OF ABELIAN VARIETIES OVER LARGE ALGEBRAIC EXTENSIONS OF FINITELY GENERATED FIELDS: *Erratum*

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For  $d, n$  positive integers, let  $\alpha(d, n)$  be the statement "For every abelian variety  $A$  bounded by  $d$  there exists a point  $P$  of order  $n$ ". Let  $l_1, l_2, l_3, \dots$  be the sequence of prime numbers and let  $\alpha$  be

$$\bigwedge_{d=1}^{\infty} \bigwedge_{m=1}^{\infty} \bigvee_{i=m}^{\infty} \alpha(d, l_i).$$

On page 113 of [1] it is claimed that if  $M$  is a field extension of  $K$ , then  $\alpha$  is true in  $M$ , if, and only if, for every abelian variety  $A$  defined over  $M$  there exist infinitely many primes  $l$  such that  $A_l(M) \neq 0$ . Unfortunately, this claim is false. Similarly  $\beta$  and  $\gamma$  on the same page cannot be interpreted as claimed. This invalidates the proof of Theorem 4.3. Fortunately, this mistake does not affect Proposition 5.1, but it enters into Theorem 5.2. Thus Conjecture 3.1 is still wide open.

## Reference

1. M. Jacobson and M. Jarden. On torsion of abelian varieties over large algebraic extensions of finitely generated fields. *Mathematika*, 31 (1984), 110-116.

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