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Corrigendum

Torsion points on abelian varieties of CM-type

(Compositio Math. 68 (1988), 241–249)

A. Silverberg

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As pointed out in [GR17, § 3], Lemma 6 of [Sil88] is false as stated. Thus, the proofs of the results that rely on it are not correct as stated. These include the proofs of [Sil88, Corollaries 4–8], the proofs of [Sil92, Corollaries 5.2(i), 5.3(i), and 5.4(i,ii)], and the proofs of the results in [vMu92] for non-simple two- and three-dimensional abelian varieties. The proof given in [Sil88, Lemma 6] is valid with the additional assumption that the abelian variety A is (absolutely) simple. Even without that assumption, the proofs of the corollaries can be salvaged in certain cases; however, stronger results have recently been achieved in [GR17].

I thank Gaël Rémond and Éric Gaudron for pointing out this error.

References

GR17 É. Gaudron and G. Rémond, *Torsion des variétés abéliennes CM*, Proc. Amer. Math. Soc., to appear, doi:10.1090/proc/13885. Preprint (2017), http://math.univ-bpclermont.fr/∼gaudron/art17.pdf.

Sil88 A. Silverberg, *Torsion points on abelian varieties of CM-type*, Compos. Math. **68** (1988), 241–249; http://www.numdam.org/item?id=CM_1988__68_3_241_0.

Sil92 A. Silverberg, *Points of finite order on abelian varieties*, in *p-adic methods in number theory and algebraic geometry*, Contemporary Mathematics, vol. 133 (American Mathematical Society, Providence, RI, 1992), 175–193.

vMu92 P. van Mulbregt, *Torsion-points on low dimensional abelian varieties with complex multiplication*, in *p-adic methods in number theory and algebraic geometry*, Contemporary Mathematics, vol. 133 (American Mathematical Society, Providence, RI, 1992), 205–210.

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