

ERRATUM TO “MODEL THEORY AND DIOPHANTINE GEOMETRY”

Model theory and diophantine geometry, by Anand Pillay, Bull. Amer. Math. Soc. (N.S.) **34** (1997), 405–422.

Our informal description of the modularity of a definable set X of Morley dimension and degree 1 should have been: “There is no n -dimensional definable family of definable subsets of $X \times X$ with $n \geq 2$, each of Morley dimension and Morley degree 1 and with pairwise intersections finite” in place of “There should be no infinite definable family of definable subsets of $X \times X$, each of Morley dimension and Morley degree 1 and with pairwise intersections finite.” (See page 415.) Thanks to Gregory Cherlin for pointing out the mistake.

I also mistakenly omitted some important historical and mathematical references concerning the Mordell-Lang conjecture in positive characteristic. Firstly, the Mordell-Lang conjecture for function fields in characteristic $p > 0$, as proved by Hrushovski (the positive characteristic case of Theorem 2.1 in my paper), was first raised in this precise form by Abramovich and Voloch [1] (where some special cases were proved). In an earlier paper [2] Voloch proved the special case where X is a projective variety embedded in its Jacobian A where A is ordinary. It is also in this paper of Voloch’s that the idea of considering only the prime-to- p division points of a finitely generated subgroup of A appears. This restriction to the prime-to- p division points makes the problem tractable, even for Hrushovski. On the other hand, Voloch has pointed out to me that there is no evidence for not including the p -division points in Γ too. This more general case (where Γ is the group of *all* division points of some finitely generated subgroup of the semi-abelian variety A) remains open.

REFERENCES

- [1] D. Abramovich and J. F. Voloch, *Towards a proof of the Mordell-Lang conjecture in characteristic p* , Internat. Math. Res. Notices **5** (1992), 103–115.
- [2] J. F. Voloch, *On the conjectures of Mordell-Lang in positive characteristics*, Invent. Math. **104** (1991), 643–646.

DEPARTMENT OF MATHEMATICS, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, URBANA,
ILLINOIS 61801

E-mail address: pillay@math.uiuc.edu