

**CORRECTION TO
“CURVES AND JACOBIANS OVER FUNCTION FIELDS”**

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There is a gap in the proof of Proposition 4.1 in [Ulm14] for a general ground field k . The issue is in the penultimate paragraph on page 301, where it is asserted:

More generally, if $\phi : A \rightarrow A'$ is a surjective morphism of abelian varieties over a field k , then we claim that the map of points $A(k) \rightarrow A'(k)$ has finite cokernel. If ϕ is an isogeny, then considering the dual isogeny ϕ^\vee and the composition $\phi\phi^\vee$ shows that the cokernel is killed by $\deg \phi$, so is finite.

This implicitly assumes that $A'(k)$ is finitely generated. The argument is correct if k is finitely generated (by the Lang-Néron theorem) or if k is algebraically closed (since ϕ is then surjective on points).

This step in the proof is definitely incorrect for some ground fields (such as p -adic fields), and I do not know if the full statement of Proposition 4.1 is correct over a general field k .

Thanks to Cristian Gonzalez Avilés and Kestutis Cesnavicius for pointing out this error.

REFERENCES

[Ulm14] D. Ulmer, *Curves and Jacobians over function fields*, Arithmetic geometry over global function fields, 2014, pp. 281–337.

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