

**Erratum to
“Cohomology sets inside arithmetic groups”**

(Acta Arith. 107 (2003), 27–33)

by

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In the paper [K] the following inaccuracy happened to escape my attention. On page 30 in the second paragraph of Section 2, I maintain that a matrix θ of order e in $\mathrm{GL}_n(\mathbb{Z})$ with $n = \varphi(e)$ has to be a root of the cyclotomic polynomial Φ_e . This apparently is false if e is not the power of a prime number. E.g. there is an integral 8×8 -matrix of order 20 having fourth and fifth roots of unity as eigenvalues.

As I point out in the first paragraph of Section 2, I am interested in the case where θ acts irreducibly on \mathbb{Q}^n . This further condition clearly leads to the assertion $\Phi_e(\theta) = 0$ and vice versa.

Therefore, in Section 2 (and most notably in the statement and proof of Theorem 2.3), phrases like “element of order e ” or “matrix of order e ” should be replaced by “zero of Φ_e ”.

References

- [K] S. Kühnlein, *Cohomology sets inside arithmetic groups*, Acta Arith. 107 (2003), 27–33.

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