

ERRATA:
ON COMPUTING BELYI MAPS

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This note gives some errata for the article *On computing Belyi maps* [2].

- (1) Section 2, “The ASD differentiation trick”: Elkies [1, Footnote 4] notes that the use of differentiation in this context goes back at least as far as 1956, appearing on the Putnam exam (and thus predating Atkin and Swinnerton-Dyer).
- (2) Section 6, paragraph 3, “In particular, the CM factors of the Jacobian factors of the Galois Belyi curves are essentially known; they come from Fermat curves”: This is not correct; this is only true for the factors of the Jacobian that are one-dimensional subrepresentations of the automorphism group, as happens in the case of abelian automorphism groups but not in general. In Section 6.5 of the article of Wolfart that is referred to, Hurwitz curves are constructed that are not of CM type and that therefore cannot come from Fermat curves.
- (3) Section 8, Simplification: When considering denominator and numerator, make it clear that it is Belyi maps on hyperelliptic curves that are considered throughout.

REFERENCES

- [1] Noam D. Elkies, *ABC implies Mordell*, Internat. Math. Res. Notices **1991**, no. 7, 99–109.
- [2] Jeroen Sijsling and John Voight, *On computing Belyi maps*, accepted to Publ. Math. Besancon.