

CORRECTIONS TO “EXPANSIONS OF O-MINIMAL STRUCTURES BY FAST SEQUENCES”

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This is not a preprint; please do not refer to it as such.

It has been noticed (by A. Dolich) that the second sentence of [1, 2.1] is easily seen to be false; it should simply be deleted because it is never actually used. What is true: If A is homogeneous and f is indiscernible, then $y \mapsto f(x, y)$ is indiscernible; and if f is almost indiscernible, then $y \mapsto f(x, y)$ is almost indiscernible.

It has been noticed (by M. Fujita) that there is a glaring error in the proof of [1, Theorem 3]. In the third sentence, it is clearly false that images of closed discrete sets under affine linear maps are necessarily closed and discrete (*e.g.*, the image of \mathbb{Z}^2 under $x + \sqrt{2}y$ is dense). This was due solely to a convex combination of laziness and sloppiness on my part. But the needed result is still true: If $f: \mathbb{R}^n \rightarrow \mathbb{R}$ is affine linear, then $f(\phi^n)$ is closed and discrete. This is “somehow obvious” by \mathbb{R} -linearity and the fastness of ϕ relative to $(\mathbb{R}, <, +, (rx)_{r \in \mathbb{R}})$, but I leave it to the interested reader to come up with a proof.

REFERENCES

- [1] Harvey Friedman and Chris Miller, *Expansions of o-minimal structures by fast sequences*, J. Symbolic Logic **70** (2005), no. 2, 410–418, DOI 10.2178/jsl/1120224720. MR 2140038

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