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A Schanuel property for exponentially transcendental powers. (English summary)

Bull. Lond. Math. Soc. **42** (2010), no. 5, 917–922.

In the paper under review the authors prove a Schanuel property for raising to the power of an exponentially transcendental real number. The proof assumes only some knowledge of o-minimality from the reader, and uses a theorem of Ax. In addition, based on the theory of exponential algebraicity in an arbitrary exponential field developed in [J. Kirby, *Bull. Lond. Math. Soc.* **42** (2010), no. 5, 879–890; [MR2721747](#)], a more general result for several powers is given in a framework including the complex case.

Reviewed by [Ş. A. Basarab](#)

References

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2. G. O. Jones and A. J. Wilkie, ‘Locally polynomially bounded structures’, *Bull. Lond. Math. Soc.* 40 (2008) 239–248. [MR2414783 \(2010b:03041\)](#)
3. J. Kirby, ‘Exponential algebraicity in exponential fields’, *Bull. Lond. Math. Soc.* 42 (2010) 879–890. [MR2721747](#)
4. S. Lang, *Algebra* (Addison-Wesley, Reading, MA, 1993). [MR0197234 \(33 #5416\)](#)

Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.

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