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On quasiminimal excellent classes. (English summary)

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Quasiminimal excellent classes were described by Zilber as an approach to the model theory of complex exponentiation. In effect, they are a natural analogue in a non-elementary context of strongly minimal theories.

The paper under review revisits Zilber's results on quasiminimal excellent classes. A quasiminimal excellent class is degenerate if and only if it either has only finite-dimensional models or is a proper subclass of another quasiminimal excellent class. The present paper shows that all nondegenerate quasiminimal excellent classes are $L_{\omega_1,\omega}(Q)$-definable. The author shows that the nondegenerate quasiminimal excellent classes are exactly those with exactly one structure of each cardinality, up to isomorphism. Furthermore, for any quasiminimal excellent class C with a model of countable dimension, there is a unique uncountably categorical quasiminimal excellent class containing C.

Reviewed by *Wesley Calvert*

References

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