

Korchagin, A. B.

Smoothing of 6-fold singular points and constructions of 9th degree M -curves. (English)

Zbl 0858.14029

Kharlamov, V. (ed.) et al., Topology of real algebraic varieties and related topics. Dedicated to the memory of D. A. Gudkov. Transl. ed. by A. B. Sossinsky. Providence, RI: American Mathematical Society. Transl., Ser. 2, Am. Math. Soc. 173, 141-155 (1996).

The article contains new results in the classification of oval arrangements of real plane non-singular curves of degree 9: the author constructs such curves with 27 ovals (the maximal possible number for degree 9), realizing 8 new arrangements. The main construction tool, used in a series of preceding papers by the author as well, is a deformation of singular curves of the given degree along the Viro procedure, namely, the Viro theorem provides the existence of a non-singular algebraic curve, which can topologically be obtained by a replacement of a singular point by a real algebraic curve with a certain Newton polygon.

For the entire collection see [[Zbl 0840.00012](#)].

Reviewer: [E.I.Shustin \(Tel Aviv\)](#)

MSC:

[14P25](#) Topology of real algebraic varieties

[14H20](#) Singularities of curves, local rings

Cited in **1** Review
Cited in **2** Documents

Keywords:

oval arrangements of real plane nonsingular curves; singular point; Newton polygon