

Eugenii SHUSTIN

LIST OF PUBLICATIONS

BOOKS

1. (jointly with G.-M. Greuel and C. Losses) *Introduction to singularities and deformations*. Springer-Verlag, Berlin, Heidelberg, 2007.
2. * (jointly with I. Itenberg and G. Mikhalkin) *Tropical algebraic geometry/ Oberwolfach seminars*, vol. **35**. Birkhauser, 2007.

ARTICLES

1. (jointly with D.A. Gudkov) Classification of non-singular 8th order curves on ellipsoid. In: *Methods of Qualitative Theory*, Gorky University Press, Gorky, 1980, pp. 104–107 (Russian).
2. On invariants of algebraic curve singular points. *Math. Notes of Acad. Sci. USSR* **34** (1983), 962–963.
3. Asymptotic density of certain sets of natural numbers. *J. Soviet Math.* **29** (1985), no. 3, 1364–1369.
4. Gluing of singular algebraic curves. In: *Methods of Qualitative Theory*, Gorky University Press, Gorky, 1985, pp. 116–128 (Russian).
5. The Hilbert-Rohn method and smoothings of real algebraic curve singular points. *Sov. Math. Doklady* **31** (1985), no. 2, 282–286.
6. Counter-examples to the Rokhlin conjecture. *Function. Anal. Appl.* **19** (1985), 162–163.
7. Estimates for the number of singular points of algebraic curves. In: *Differential and Integral Equations*, Gorky University Press, Gorky, 1985, pp. 81–83 (Russian).
8. Versal deformations in the space of plane curves of fixed degree. *Function. Anal. Appl.* **21** (1987), 82–84.
9. New M-curve of the 8th degree. *Math. Notes of Acad. Sci. USSR* **42** (1987), 606–610.
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11. New M- and (M-1)-curves of degree 8. In: *Rokhlin seminar/ Lecture Notes in Mathematics*, vol. **1346**, Springer, Berlin, 1988, pp. 487–493.
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15. On manifolds of singular algebraic curves. *Selecta Math. Sov.* **10** (1991), no. 11, 27–37.
16. Hyperbolic and minimal smoothings of singular points. *Selecta Math. Sov.* **10** (1991), no. 1, 19–25.
17. Dynamical systems in \mathbf{C}^2 and real curves of 8th degree. In: *Methods of Qualitative Theory*, N.-Novgorod University Press, N.-Novgorod, 1991, pp. 120–129 (Russian).
18. Topology of M-curves with a deep nest. In: *Arithmetic and Geometry of Varieties*, Samara University Press, Samara, 1992, pp. 147–158 (Russian).

19. (jointly with V. N. Chervin) Quasi-symmetric and quasi-skew-symmetric bilinear forms over a field. *Math. Notes Russ. Acad. Sci.* **52** (1992), no. 6, 1272–1279.
20. Real plane algebraic curves with prescribed singularities. *Topology* **32** (1993), no. 4, 845–856.
21. (jointly with E. Fridman and L. Fridman) Steady modes in an autonomous system with break and delay. *Differential Equations* **29** (1993), no. 8, 1161–1166.
22. (jointly with E. Fridman and L. Fridman) Steady modes in a discontinuous control system with time delay. *Pure Math. Appl.* **4** (1993), no. 1, 59–73.
23. Smoothness and irreducibility of varieties of algebraic curves with nodes and cusps. *Bull. SMF* **122** (1994), 235–253.
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25. (jointly with I. Itenberg) Newton polygons and singular points of real polynomial vector fields. *C. R. Acad. Sci. Paris, Ser. I*, **319** (1994), 963–968.
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28. (jointly with I. Itenberg) Real algebraic curves with real cusps. *Amer. Math. Soc. Transl. (2)*, **173** (1996), 97–109.
29. Critical points of real polynomials, subdivisions of Newton polyhedra and topology of real algebraic hypersurfaces. *Amer. Math. Soc. Transl. (2)*, **173** (1996), 203–223.
30. Geometry of equisingular families of plane algebraic curves. *J. Algebraic Geometry* **5** (1996), no. 2, 209–234.
31. Smoothness of equisingular families of plane algebraic curves. *International Mathematics Research Notices* **2** (1997), 67–82.
32. Interpolation by convex algebraic hypersurfaces. *J. Approximation theory* **88** (1997), no. 3, 304–315.
33. (jointly with S. Finashin) On imaginary plane curves and Spin quotients of complex surfaces by complex conjugation. In: *Topics in Singularity Theory. V. I. Arnold's 60th Anniversary Collection* (AMS Translations (2), **180**) / A. Khovanskii etc eds., AMS, Providence R. I., 1997, pp. 93–101.
34. (jointly with G.-M. Greuel and C. Lossen) New asymptotics in the geometry of equisingular families of curves. *International Mathematics Research Notices* **13** (1997), 595–611.
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36. (jointly with G.-M. Greuel and C. Lossen) Geometry of families of nodal curves on the blown up projective plane. *Trans. Amer. Math. Soc.* **350** (1998), no. 1, 251–274.
37. Equiclassical deformation of plane algebraic curves. In: *Singularities/ Progress in Math.* **162**, Birkhäuser, Basel, 1998, pp. 195–204.
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39. (jointly with I. Tyomkin) Versal deformations of algebraic hypersurfaces with isolated singularities. *Math. Annalen* **313** (1999), no. 2, 297–314.
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41. Deformation of complete intersections in the plane. *Bull. London Math. Soc.* **32** (2000), no. 2, 177–181.

42. (jointly with I. Itenberg) Singular points and limit cycles of planar polynomial vector fields. *Duke Math. J.* **102** (2000), no. 1, 1–37.
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44. (jointly with G.-M. Greuel and C. Lossen) Castelnuovo function, zero-dimensional schemes and singular plane curves. *J. Alg. Geom.* **9** (2000), no. 4, 663–710.
45. (jointly with E. Fridman and L. Fridman) Steady modes and stability in discontinuous delay systems with periodic disturbances. *ASME Journal of Dynamic Systems, Measurement and Control* **122** (2000), no. 4, 732–737.
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51. (jointly with I. Itenberg) Combinatorial patchworking of real pseudo-holomorphic curves. *Turkish J. Math.* **26** (2002), no. 1, 27–51.
52. (jointly with S. Orevkov) Flexible, algebraically unrealizable curves: Rehabilitation of Hilbert-Rohn-Gudkov approach. *J. reine angew. Math.* **551** (2002), 145–172.
53. (jointly with E. Fridman and L. Fridman) Oscillations in a second-order discontinuous system with delay. *Discrete and Continuous Dynamical Systems* **9** (2003), no. 2, 339–358.
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65. (jointly with I. Tyomkin) Patchworking singular algebraic curves, I. *Israel J. Math.* **151** (2006), 125–144.
66. (jointly with I. Tyomkin) Patchworking singular algebraic curves, II. *Israel J. Math.* **151** (2006), 145–166.
67. (jointly with G.-M. Greuel and C. Lossen) Equisingular families of projective curves. In: *Global aspects of complex geometry*/F. Catanese et al., eds., Springer, 2006, pp. 171–209.
68. (jointly with E. Fridman) On Delay-Derivative-Dependent Stability of Systems with Fast-Varying Delays. *Automatica* **43** (2007), no. 9, 1649–1655.
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73. * (jointly with I. Itenberg and V. Kharlamov) A Caporaso-Harris type formula for Welschinger invariants of real toric Del Pezzo surfaces. *Comment. Math. Helv.* **84** (2009), 87–126.
74. (jointly with H. Kaplan and M. Sharir) On lines and Joints. Preprint at arXiv:0906.0558. *Discrete and Computational Geometry* **44** (2010), 838–843.
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3. (jointly with E. Fridman and L. Fridman) Steady modes in a discontinuous control system with time delay. *Proc. Internat. IEEE Workshop on Variable structure and Liapunoff control of uncertain dynamical systems, Sheffield, Sep. 7-9, 1992*, pp. 65–69.
4. Topology of real plane algebraic curves. *Proc. Intern. Conf. Real Algebraic Geometry, Rennes, June 24-29 1991*/ Lect. Notes Math. **1524**, Springer, 1992, pp. 97–109.
5. Real plane algebraic curves with many singularities. *Proc. Intern. Conf. Real Algebraic Geometry, Rennes, June 24-29 1991*/ Lect. Notes Math. **1524**, Springer, 1992, pp. 389–401.
6. (jointly with E. Fridman and L. Fridman) Adaptive delay control of relay type in autonomous and periodic systems. *Proc. Second European Control Conference, Groningen, July 1993*, vol. 4, pp. 2212–2215.
7. Smoothness and irreducibility of families of plane algebraic curves with ordinary singularities. In: *Israel Mathematical Conference Proceedings*, **9**, AMS, Providence, Rh. I., 1996, pp. 393–416.
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14. * Tropical and algebraic curves with multiple points. Preprint at arXiv:0904.2834. To appear in *Proceedings of the Workshop "Perspectives in Analysis, Geometry, and Topology", Stockholm, May 19-25, 2008*, Progress in Math, Birkhäuser, 2011.