

# Nicolai Vorobjov

## List of Publications by Year in descending order

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21  
papers

186  
citations

1307594

7  
h-index

1199594

12  
g-index

21  
all docs

21  
docs citations

21  
times ranked

52  
citing authors

#	ARTICLE	IF	CITATIONS
1	Complexity of computations with Pfaffian and Noetherian functions. , 2004, , 211-250.		37
2	Betti Numbers of Semialgebraic Sets Defined by Quantifier-Free Formulae. Discrete and Computational Geometry, 2005, 33, 395-401.	0.6	27
3	Complexity of cylindrical decompositions of sub-Pfaffian sets. Journal of Pure and Applied Algebra, 2001, 164, 179-197.	0.6	21
4	Approximation of definable sets by compact families, and upper bounds on homotopy and homology. Journal of the London Mathematical Society, 2009, 80, 35-54.	1.0	21
5	Complexity of deciding whether a tropical linear prevariety is a tropical variety. Applicable Algebra in Engineering, Communications and Computing, 2021, 32, 157-174.	0.5	16
6	The complexification and degree of a semi-algebraic set. Mathematische Zeitschrift, 2002, 239, 131-142.	0.9	13
7	Pfaffian Hybrid Systems. Lecture Notes in Computer Science, 2004, , 430-441.	1.3	11
8	On the number of homotopy types of fibres of a definable map. Journal of the London Mathematical Society, 2007, 76, 757-776.	1.0	9
9	Semi-monotone sets. Journal of the European Mathematical Society, 2013, 15, 635-657.	1.4	8
10	Monotone functions and maps. Revista De La Real Academia De Ciencias Exactas, Fisicas Y Naturales - Serie A: Matematicas, 2013, 107, 5-33.	1.2	6
11	On Topological Lower Bounds for Algebraic Computation Trees. Foundations of Computational Mathematics, 2017, 17, 61-72.	2.5	5
12	New Complexity Bounds for Cylindrical Decompositions of Sub-Pfaffian Sets. Algorithms and Combinatorics, 2003, , 673-694.	0.6	4
13	Triangulations of monotone families I: two-dimensional families. Proceedings of the London Mathematical Society, 2015, 111, 1013-1051.	1.3	3
14	Computing combinatorial types of trajectories in Pfaffian Dynamics. The Journal of Logic and Algebraic Programming, 2010, 79, 32-37.	1.4	2
15	Upper Bounds on Betti Numbers of Tropical Prevarieties. Arnold Mathematical Journal, 2018, 4, 127-136.	0.4	2
16	Effective Cylindrical Cell Decompositions for Restricted Sub-Pfaffian Sets. International Mathematics Research Notices, 2022, 2022, 3493-3510.	1.0	1
17	Bounds on Sizes of Finite Bisimulations of Pfaffian Dynamical Systems. Theory of Computing Systems, 2008, 43, 498-515.	1.1	0
18	A Helly-Type Theorem for Semi-monotone Sets and Monotone Maps. Discrete and Computational Geometry, 2013, 50, 857-864.	0.6	0

#	ARTICLE	IF	CITATIONS
19	On Irreducible Components of Real Exponential Hypersurfaces. Arnold Mathematical Journal, 2017, 3, 423-443.	0.4	0
20	Topological lower bounds for arithmetic networks. Computational Complexity, 2017, 26, 687-715.	0.3	0
21	Satisfiability of Viability Constraints for Pfaffian Dynamics. , 2006, , 260-269.		0