Dmitrii V Pasechnik

List of Publications by Year
in descending order

61 papers	18,494 citations	567281 15 h-index	168389 53 g-index
62 all docs	62 docs citations	62 times ranked	27489 citing authors

#	Article	IF	Citations
1	SciPy 1.0: fundamental algorithms for scientific computing in Python. Nature Methods, 2020, 17, 261-272.	19.0	17,539
2	Approximation of the Stability Number of a Graph via Copositive Programming. SIAM Journal on Optimization, 2002, 12, 875-892.	2.0	229
3	Reduction of symmetric semidefinite programs using the regular $\ast$ -representation. Mathematical Programming, 2007, 109, 613-624.	2.4	84
4	On Approximate Graph Colouring and MAX-k-CUT Algorithms Based on the Î¸-Function. Journal of Combinatorial Optimization, 2004, 8, 267-294.	1.3	55
5	Improved Bounds for the Crossing Numbers of Km,n and Kn. SIAM Journal on Discrete Mathematics, 2006, 20, 189-202.	0.8	46
6	Majorana representations of the symmetric group of degree 4. Journal of Algebra, 2010, 324, 2432-2463.	0.7	40
7	The Inverse Moment Problem for Convex Polytopes. Discrete and Computational Geometry, 2012, 48, 596-621.	0.6	39
8	Exploiting group symmetry in truss topology optimization. Optimization and Engineering, 2009, 10, 331-349.	2.4	38
9	CSS-Like Constructions of Asymmetric Quantum Codes. IEEE Transactions on Information Theory, 2013, 59, 6732-6754.	2.4	37
10	On Semidefinite Programming Relaxations of the Traveling Salesman Problem. SIAM Journal on Optimization, 2009, 19, 1559-1573.	2.0	32
11	Polynomial-time computing over quadratic maps i: sampling in real algebraic sets. Computational Complexity, 2005, 14, 20-52.	0.3	30
12	Complexity of Semi-algebraic Proofs. Lecture Notes in Computer Science, 2002, , 419-430.	1.3	22
13	Numerical block diagonalization of matrix *-algebras with application to semidefinite programming. Mathematical Programming, 2011, 129, 91.	2.4	21
14	Computing symmetry groups of polyhedra. LMS Journal of Computation and Mathematics, 2014, 17, 565-581.	0.9	21
15	Non-Abelian Representations of Some Sporadic Geometries. Journal of Algebra, 1996, 181, 523-557.	0.7	19
16	Computing the nucleolus of weighted voting games. , 2009, , .		15
17	Extending polar spaces of rank at least 3. Journal of Combinatorial Theory - Series A, 1995, 72, 232-242.	0.8	14
18	The Extensions of the Generalized Quadrangle of Order (3, 9). European Journal of Combinatorics, 1996, 17, 751-755.	0.8	12

#	Article	IF	Citations
19	On semidefinite programming relaxations of maximum $$k$$ -section. Mathematical Programming, 2012, 136, 253-278.	2.4	12
20	Geometric characterization of the sporadic groups Fi22, Fi23, and Fi24. Journal of Combinatorial Theory - Series A, 1994, 68, 100-114.	0.8	11
21	Relaxations of Combinatorial Problems Via Association Schemes. Profiles in Operations Research, 2012, , 171-199.	0.4	11
22	Skew-symmetric association schemes with two classes and strongly regular graphs of type L 2n?1(4n?1). Acta Applicandae Mathematicae, 1992, 29, 129-138.	1.0	10
23	Bounding the Betti numbers and computing the Euler–Poincaré characteristic of semi-algebraic sets deï¬ned by partly quadratic systems of polynomials. Journal of the European Mathematical Society, 2010, 12, 529-553.	1.4	10
24	On computing Hilbert bases via the Elliot–MacMahon algorithm. Theoretical Computer Science, 2001, 263, 37-46.	0.9	9
25	On the Skeleton of the Metric Polytope. Lecture Notes in Computer Science, 2001, , 125-136.	1.3	9
26	Geometric Characterization of Graphs from the Suzuki Chain. European Journal of Combinatorics, 1993, 14, 491-499.	0.8	8
27	The Automorphism Group and the Convex Subgraphs of the Quadratic Forms Graph in Characteristic 2. Journal of Algebraic Combinatorics, 1993, 2, 411-419.	0.8	8
28	On NP-hardness of the clique partition–Independence number gap recognition and related problems. Discrete Mathematics, 2006, 306, 460-463.	0.7	8
29	Computing the Betti numbers of semi-algebraic sets defined by partly quadratic systems of polynomials. Journal of Algebra, 2009, 321, 2206-2229.	0.7	8
30	Dual Linear Extensions of Generalised Quadrangles. European Journal of Combinatorics, 1991, 12, 541-548.	0.8	7
31	Products of positive forms, linear matrix inequalities, and Hilbert 17th problem for ternary forms. European Journal of Operational Research, 2004, 157, 39-45.	5.7	7
32	Subsets close to invariant subsets for group actions. Proceedings of the American Mathematical Society, 1995, 123, 2283-2295.	0.8	7
33	Bounds on the Cost of Stabilizing a Cooperative Game. Journal of Artificial Intelligence Research, 0, 63, 987-1023.	7.0	7
34	The Universal Covers of Certain Semibiplanes. European Journal of Combinatorics, 1997, 18, 491-496.	0.8	6
35	Exponential Lower Bound for Static Semi-algebraic Proofs. Lecture Notes in Computer Science, 2002, , 257-268.	1.3	6
36	On the Irreducibility of a Truncated Binomial Expansion. Rocky Mountain Journal of Mathematics, 2007, 37, .	0.4	5

#	Article	IF	Citations
37	Book drawings of complete bipartite graphs. Discrete Applied Mathematics, 2014, 167, 80-93.	0.9	5
38	On moments of a polytope. Analysis and Mathematical Physics, 2018, 8, 255-287.	1.3	5
39	Distance-transitive Graphs of Type q. Kq,q and Projective Planes. European Journal of Combinatorics, 1990, 11, 341-346.	0.8	4
40	On Transitive Permutation Groups with Primitive Subconstituents. Bulletin of the London Mathematical Society, 1999, 31, 257-268.	0.8	4
41	The isometries of the cut, metric and hypermetric cones. Journal of Algebraic Combinatorics, 2006, 23, 197-203.	0.8	4
42	A New Family of Extended Generalized Quadrangles. European Journal of Combinatorics, 1997, 18, 155-169.	0.8	3
43	Implementing Brouwer's database of strongly regular graphs. Designs, Codes, and Cryptography, 2017, 84, 223-235.	1.6	3
44	RepnDecomp: A GAP package for decomposing linear representations of finite groups. Journal of Open Source Software, 2020, 5, 1835.	4.6	3
45	Multiple Extensions of Generalized Hexagons Related to the Simple Groups McL and Co_3. Journal of the London Mathematical Society, 1996, 54, 16-24.	1.0	2
46	On polygonal measures with vanishing harmonic moments. Journal D'Analyse Mathematique, 2014, 123, 281-301.	0.8	2
47	Sandpile groups of generalized de Bruijn and Kautz graphs and circulant matrices over finite fields. Journal of Algebra, 2015, 421, 268-295.	0.7	2
48	Random Chain Complexes. Arnold Mathematical Journal, 2017, 3, 197-204.	0.4	2
49	A GAP Package for Computation with Coherent Configurations. Lecture Notes in Computer Science, 2010, , 69-72.	1.3	2
50	A Note on the Stability Number of an Orthogonality Graph. SSRN Electronic Journal, 0, , .	0.4	2
51	Exploiting Group Symmetry in Truss Topology Optimization. SSRN Electronic Journal, 0, , .	0.4	2
52	Affine extensions of the petersen graph and 2-arc-transitive graphs of girth 5. European Journal of Combinatorics, 1992, 13, 279-290.	0.8	1
53	Extended generalized octagons and the groupHe. Geometriae Dedicata, 1995, 56, 85-101.	0.3	1
54	The Universal Covers of the Sporadic Semibiplanes. European Journal of Combinatorics, 1996, 17, 595-604.	0.8	1

#	Article	IF	Citations
55	Two distance-regular graphs. Journal of Algebraic Combinatorics, 2012, 36, 403-407.	0.8	1
56	Edge-dominating cycles, k-walks and Hamilton prisms in 2K2-free graphs. Journal of Knot Theory and Its Ramifications, 2016, 25, 1642011.	0.3	1
57	Splitting fields of real irreducible representations of finite groups. Representation Theory, 2021, 25, 897-902.	0.5	1
58	On the Lovasz O-number of Almost Regular Graphs with Application to Erdos-Renyi Graphs. SSRN Electronic Journal, 0, , .	0.4	1
59	New examples of finite $\tilde C_2$ -geometries. Geometriae Dedicata, 1993, 46, 161-164.	0.3	0
60	Local characterizations of geometries. Bulletin of the Australian Mathematical Society, 1996, 53, 175-176.	0.5	0
61	Critical groups of generalized de Bruijn and Kautz graphs and circulant matrices over finite fields. , 2013, , 97-104.		0