

Alexei Kanel-Belov

List of Publications by Year in descending order

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90
papers

1,385
citations

361413

20
h-index

377865

34
g-index

100
all docs

100
docs citations

100
times ranked

376
citing authors

#	ARTICLE	IF	CITATIONS
1	Toughening by Fragmentation—How Topology Helps. <i>Advanced Engineering Materials</i> , 2001, 3, 885.	3.5	87
2	Fracture Resistant Structures Based on Topological Interlocking with Non-planar Contacts. <i>Advanced Engineering Materials</i> , 2003, 5, 116-119.	3.5	80
3	Topological interlocking of platonic solids: A way to new materials and structures. <i>Philosophical Magazine Letters</i> , 2003, 83, 197-203.	1.2	80
4	A new concept in design of materials and structures: assemblies of interlocked tetrahedron-shaped elements. <i>Scripta Materialia</i> , 2001, 44, 2689-2694.	5.2	79
5	Negative stiffness of a layer with topologically interlocked elements. <i>Scripta Materialia</i> , 2004, 50, 291-294.	5.2	65
6	Monomial algebras. <i>Journal of Mathematical Sciences</i> , 1997, 87, 3463-3575.	0.4	64
7	Point loading of assemblies of interlocked cube-shaped elements. <i>International Journal of Engineering Science</i> , 2008, 46, 1228-1238.	5.0	56
8	The Jacobian Conjecture is Stably Equivalent to the Dixmier Conjecture. <i>Moscow Mathematical Journal</i> , 2007, 7, 209-218.	0.4	55
9	The images of non-commutative polynomials evaluated on 2×2 matrices. <i>Proceedings of the American Mathematical Society</i> , 2012, 140, 465-478.	0.8	54
10	Representability and Specht problem for G-graded algebras. <i>Advances in Mathematics</i> , 2010, 225, 2391-2428.	1.1	52
11	A new principle in design of composite materials: reinforcement by interlocked elements. <i>Composites Science and Technology</i> , 2003, 63, 483-491.	7.8	51
12	The principle of topological interlocking in extraterrestrial construction. <i>Acta Astronautica</i> , 2005, 57, 10-21.	3.2	47
13	Automorphisms of the Weyl Algebra. <i>Letters in Mathematical Physics</i> , 2005, 74, 181-199.	1.1	39
14	Percolation mechanism of failure of a planar assembly of interlocked osteomorphic elements. <i>Engineering Fracture Mechanics</i> , 2007, 74, 1222-1232.	4.3	39
15	Counterexamples to the Specht problem. <i>Sbornik Mathematics</i> , 2000, 191, 329-340.	0.6	37
16	Topological interlocking of protective tiles for the space shuttle. <i>Philosophical Magazine Letters</i> , 2003, 83, 351-355.	1.2	26
17	The images of multilinear polynomials evaluated on 3×3 matrices. <i>Proceedings of the American Mathematical Society</i> , 2015, 144, 7-19.	0.8	24
18	Interlocking of Convex Polyhedra: towards a Geometric Theory of Fragmented Solids. <i>Moscow Mathematical Journal</i> , 2010, 10, 337-342.	0.4	24

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19	On the rationality of Hilbert series of relatively free algebras. Russian Mathematical Surveys, 1997, 52, 394-395.	0.6	21
20	Power-central polynomials on matrices. Journal of Pure and Applied Algebra, 2016, 220, 2164-2176.	0.6	21
21	The images of Lie polynomials evaluated on matrices. Communications in Algebra, 2017, 45, 4801-4808.	0.6	18
22	The local finite basis property and local representability of varieties of associative rings. Izvestiya Mathematics, 2010, 74, 1-126.	0.6	17
23	Some estimations for nilpotence of nil-algebras over a field of an arbitrary characteristic and height theorem. Communications in Algebra, 1992, 20, 2919-2922.	0.6	15
24	Word equations in simple groups and polynomial equations in simple algebras. Vestnik St Petersburg University: Mathematics, 2013, 46, 3-13.	0.4	14
25	Kemer's theorem for affine PI algebras over a field of characteristic zero. Journal of Pure and Applied Algebra, 2016, 220, 2771-2808.	0.6	14
26	Interlocking properties of buckyballs. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 319, 373-378.	2.1	13
27	Structure of Zariski-closed algebras. Transactions of the American Mathematical Society, 2010, 362, 4695-4734.	0.9	11
28	Describing the Set of Words Generated by Interval Exchange Transformation. Communications in Algebra, 2010, 38, 2588-2605.	0.6	11
29	AUTOMORPHISMS OF THE ENDOMORPHISM SEMIGROUP OF A FREE ASSOCIATIVE ALGEBRA. International Journal of Algebra and Computation, 2007, 17, 923-939.	0.5	10
30	Hilbert series of PI relatively free $\langle i \rangle G \langle /i \rangle$ -graded algebras are rational functions. Bulletin of the London Mathematical Society, 2012, 44, 520-532.	0.8	10
31	Evaluations of Noncommutative Polynomials on Algebras: Methods and Problems, and the L'vov-Kaplansky Conjecture. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 0, , .	0.5	10
32	The Gel'fand-Kirillov dimension of relatively free associative algebras. Sbornik Mathematics, 2004, 195, 1703-1726.	0.6	9
33	Construction of Semigroups with Some Exotic Properties. Communications in Algebra, 2003, 31, 673-696.	0.6	8
34	Construction of Semigroups with Some Exotic Properties. Acta Applicandae Mathematicae, 2005, 85, 49-56.	1.0	8
35	ON A SHIRSHOV BASIS OF RELATIVELY FREE ALGEBRAS OF COMPLEXITY n . Sbornik: Mathematics, 1989, 63, 363-374.	0.2	7
36	On the chromatic number of an infinitesimal plane layer. St Petersburg Mathematical Journal, 2018, 29, 761-775.	0.4	7

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37	Materials with Novel Architectonics: Assemblies of Interlocked Elements. Solid Mechanics and Its Applications, 2002, , 51-55.	0.2	6
38	No Associative PI-Algebra Coincides with Its Commutant. Siberian Mathematical Journal, 2003, 44, 969-980.	0.6	6
39	On rings asymptotically close to associative rings. Siberian Advances in Mathematics, 2007, 17, 227-267.	0.4	6
40	Automorphisms of the endomorphism semigroup of a polynomial algebra. Journal of Algebra, 2011, 333, 40-54.	0.7	6
41	On the augmentation topology of automorphism groups of affine spaces and algebras. International Journal of Algebra and Computation, 2018, 28, 1449-1485.	0.5	6
42	Linear Recurrence Equations on a Tree. Mathematical Notes, 2005, 78, 603-609.	0.4	5
43	Normal bases of PI-algebras. Advances in Applied Mathematics, 2006, 37, 378-389.	0.7	5
44	The Jacobian Conjecture, Together with Specht and Burnside-Type Problems. Springer Proceedings in Mathematics and Statistics, 2014, , 249-285.	0.2	5
45	Perspectives on Shirshov's Height Theorem. , 2009, , 185-202.		5
46	On manifolds generated by a ring finite-dimensional over a centroid. Russian Mathematical Surveys, 2007, 62, 379-381.	0.6	4
47	Burnside-type problems, theorems on height, and independence. Journal of Mathematical Sciences, 2009, 156, 219-260.	0.4	4
48	On the lifting of the Nagata automorphism. Selecta Mathematica, New Series, 2011, 17, 935-945.	1.0	4
49	Full quivers of representations of algebras. Transactions of the American Mathematical Society, 2012, 364, 5525-5569.	0.9	4
50	Specht's problem for associative affine algebras over commutative Noetherian rings. Transactions of the American Mathematical Society, 2015, 367, 5553-5596.	0.9	4
51	On the Algorithmic Undecidability of the Embeddability Problem for Algebraic Varieties over a Field of Characteristic Zero. Mathematical Notes, 2019, 106, 299-302.	0.4	4
52	About height theorem. Communications in Algebra, 1995, 23, 3551-3553.	0.6	3
53	On generalized cancellation problem. Journal of Algebra, 2004, 281, 161-166.	0.7	3
54	Trisecant lemma for nonequidimensional varieties. Journal of Mathematical Sciences, 2008, 149, 1087-1097.	0.4	3

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55	Application of Full Quivers of Representations of Algebras, to Polynomial Identities. Communications in Algebra, 2011, 39, 4536-4551.	0.6	3
56	Subexponential estimates in Shirshov's theorem on height. Sbornik Mathematics, 2012, 203, 534-553.	0.6	3
57	Bergman's centralizer theorem and quantization. Communications in Algebra, 2018, 46, 2123-2129.	0.6	3
58	Words with low complexity and interval exchange transformations. Russian Mathematical Surveys, 2008, 63, 158-160.	0.6	2
59	PI-varieties associated to full quivers of representations of algebras. Transactions of the American Mathematical Society, 2012, 365, 2681-2722.	0.9	2
60	Stable tameness of automorphisms of $\langle x, y, z \rangle$ fixing z . Selecta Mathematica, New Series, 2012, 18, 799-802.	1.0	2
61	On planar algebraic curves and holonomic \mathbb{F} -modules in positive characteristic. Journal of Algebra and Its Applications, 2016, 15, 1650155.	0.4	2
62	Lifting of polynomial symplectomorphisms and deformation quantization. Communications in Algebra, 2018, 46, 3926-3938.	0.6	2
63	On a combinatorial problem. Russian Mathematical Surveys, 1993, 48, 170-170.	0.6	1
64	Cancellation Problems and Dimension Theory. Communications in Algebra, 2006, 34, 1521-1540.	0.6	1
65	On low-dimensional cancellation problems. Journal of Algebra, 2008, 319, 2235-2242.	0.7	1
66	Local finite basis property and local representability for varieties of associative rings. Doklady Mathematics, 2010, 81, 458-461.	0.6	1
67	Zariski Closed Algebras in Varieties of Universal Algebra. Algebras and Representation Theory, 2014, 17, 1771-1783.	0.7	1
68	Factor analysis method applied to the results of crowdfunding projects. Chebyshevskii Sbornik, 2021, 22, 152-162.	0.1	1
69	A NEW CLASS OF COMPOSITE MATERIALS BASED ON TOPOLOGICAL INTERLOCKING. , 2002, , .		1
70	Collectives of Automata in Finitely Generated Groups. Mathematical Notes, 2020, 108, 671-678.	0.4	1
71	Criterion for Substitutivity of Sturmian Palindromes and One-Dimensional Factor Dynamics. Moscow University Mathematics Bulletin, 2020, 75, 216-219.	0.2	1
72	On a problem of combinatorial geometry. Russian Mathematical Surveys, 1992, 47, 167-168.	0.6	0

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73	The Gel'fand-Kirillov dimension of relatively free prime algebras of arbitrary signature. Russian Mathematical Surveys, 2003, 58, 777-779.	0.6	0
74	Multi-secant lemma. Israel Journal of Mathematics, 2010, 177, 253-266.	0.8	0
75	Free subalgebras of Lie algebras close to nilpotent. Groups, Geometry, and Dynamics, 2009, 4, 15-29.	0.5	0
76	Automorphisms of the semigroup $\text{End}(K[x_1, \dots, x_n])$. Journal of Mathematical Sciences, 2012, 186, 706-711.	0.4	0
77	Construction of finitely presented infinite nil-semigroups. Journal of Mathematical Sciences, 2012, 186, 751-752.	0.4	0
78	Subexponential Estimations in the Shirshov Height Theorem. Journal of Mathematical Sciences, 2013, 193, 378-381.	0.4	0
79	Subexponential estimates in the height theorem and estimates on numbers of periodic parts of small periods. Journal of Mathematical Sciences, 2013, 193, 493-515.	0.4	0
80	Description of normal bases of boundary algebras and factor languages of slow growth. Mathematical Notes, 2017, 101, 203-207.	0.4	0
81	No iterated identities satisfied by all finite groups. Israel Journal of Mathematics, 2019, 233, 167-197.	0.8	0
82	Nonstandard Analysis, Deformation Quantization and Some Logical Aspects of (Non)Commutative Algebraic Geometry. Mathematics, 2020, 8, 1694.	2.2	0
83	Solvability of equations in elementary functions. Journal of Knot Theory and Its Ramifications, 2020, 29, 2040005.	0.3	0
84	Exponential diophantine equations in rings of positive characteristic. Journal of Knot Theory and Its Ramifications, 2020, 29, 2040002.	0.3	0
85	Probabilistic methods of bypass of the labyrinth using stones and random number generator. Chebyshevskii Sbornik, 2019, 20, 296-315.	0.1	0
86	The Jacobian Conjecture for the free associative algebra (of arbitrary characteristic). Chebyshevskii Sbornik, 2019, 20, 390-393.	0.1	0
87	On uniformly recurrent words generated by shifting segments, including with a change in orientation. Chebyshevskii Sbornik, 2019, 20, 68-84.	0.1	0
88	The Braun-Kemer-Razmyslov Theorem for affine Pi-algebras. Chebyshevskii Sbornik, 2020, 21, 89-128.	0.1	0
89	Construction of Infinite Finitely Presented Nilsemigroup. Doklady Mathematics, 2020, 101, 81-85.	0.6	0
90	The Grassmann algebra over arbitrary rings and minus sign in arbitrary characteristic. Transactions of the American Mathematical Society Series B, 2020, 7, 227-253.	1.1	0