

Alexander Okhotin

List of Publications by Year in descending order

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137
papers

1,309
citations

448610

19
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28
g-index

155
all docs

155
docs citations

155
times ranked

155
citing authors

#	ARTICLE	IF	CITATIONS
1	On hardest languages for one-dimensional cellular automata. Information and Computation, 2023, 295, 104891.	0.5	2
2	State complexity of GF(2)-operations on unary languages. Information and Computation, 2022, 284, 104693.	0.5	1
3	The Hardest LL(k) Language. Lecture Notes in Computer Science, 2021, , 304-315.	1.0	2
4	Input-Driven Pushdown Automata on Well-Nested Infinite Strings. Lecture Notes in Computer Science, 2021, , 349-360.	1.0	2
5	On Hardest Languages for One-Dimensional Cellular Automata. Lecture Notes in Computer Science, 2021, , 118-130.	1.0	4
6	On the Length of Shortest Strings Accepted by Two-way Finite Automata. Fundamenta Informaticae, 2021, 180, 315-331.	0.3	2
7	On the Transformation of Two-Way Deterministic Finite Automata to Unambiguous Finite Automata. Lecture Notes in Computer Science, 2021, , 81-93.	1.0	2
8	State Complexity of $\hat{\cup}$ and $\hat{\cap}$ on \hat{G} -Walking Automata. Lecture Notes in Computer Science, 2021, , 125-136.	1.0	2
9	Deterministic One-Way Simulation of Two-Way Deterministic Finite Automata over Small Alphabets. Lecture Notes in Computer Science, 2021, , 26-37.	1.0	2
10	Formal languages over GF(2). Information and Computation, 2020, 283, 104672.	0.5	4
11	Extensions of unification modulo ACUI. Mathematical Structures in Computer Science, 2020, 30, 597-626.	0.5	3
12	Longer Shortest Strings in Two-Way Finite Automata. Lecture Notes in Computer Science, 2020, , 104-116.	1.0	2
13	Cyclic Shift on Multi-component Grammars. Lecture Notes in Computer Science, 2020, , 287-299.	1.0	0
14	Reversibility of computations in graph-walking automata. Information and Computation, 2020, 275, 104631.	0.5	8
15	State Complexity of the Quotient Operation on Input-Driven Pushdown Automata. International Journal of Foundations of Computer Science, 2019, 30, 1217-1235.	0.8	1
16	Further closure properties of input-driven pushdown automata. Theoretical Computer Science, 2019, 798, 65-77.	0.5	0
17	Edit distance neighbourhoods of input-driven pushdown automata. Theoretical Computer Science, 2019, 777, 417-430.	0.5	4
18	State complexity of unambiguous operations on finite automata. Theoretical Computer Science, 2019, 798, 52-64.	0.5	4

#	ARTICLE	IF	CITATIONS
19	Hardest languages for conjunctive and Boolean grammars. Information and Computation, 2019, 266, 1-18.	0.5	6
20	On the Expressive Power of GF(2)-Grammars. Lecture Notes in Computer Science, 2019, , 310-323.	1.0	6
21	Graph-Walking Automata: From Whence They Come, and Whither They are Bound. Lecture Notes in Computer Science, 2019, , 10-29.	1.0	3
22	On the Length of Shortest Strings Accepted by Two-Way Finite Automata. Lecture Notes in Computer Science, 2019, , 88-99.	1.0	1
23	State Complexity of GF(2)-Concatenation and GF(2)-Inverse on Unary Languages. Lecture Notes in Computer Science, 2019, , 248-259.	1.0	1
24	Linear-space recognition for grammars with contexts. Theoretical Computer Science, 2018, 719, 73-85.	0.5	2
25	On the Number of Nonterminal Symbols in Unambiguous Conjunctive Grammars. Fundamenta Informaticae, 2018, 162, 43-72.	0.3	0
26	Towards Exact State Complexity Bounds for Input-Driven Pushdown Automata. Lecture Notes in Computer Science, 2018, , 441-452.	1.0	1
27	A Tale of Conjunctive Grammars. Lecture Notes in Computer Science, 2018, , 36-59.	1.0	9
28	Formal Languages over GF(2). Lecture Notes in Computer Science, 2018, , 68-79.	1.0	11
29	Underlying Principles and Recurring Ideas of Formal Grammars. Lecture Notes in Computer Science, 2018, , 36-59.	1.0	6
30	Further Closure Properties of Input-Driven Pushdown Automata. Lecture Notes in Computer Science, 2018, , 224-236.	1.0	1
31	State Complexity of Unambiguous Operations on Deterministic Finite Automata. Lecture Notes in Computer Science, 2018, , 188-199.	1.0	2
32	On the state complexity of operations on two-way finite automata. Information and Computation, 2017, 253, 36-63.	0.5	8
33	Unambiguous conjunctive grammars over a one-symbol alphabet. Theoretical Computer Science, 2017, 665, 13-39.	0.5	2
34	State complexity of operations on input-driven pushdown automata. Journal of Computer and System Sciences, 2017, 86, 207-228.	0.9	16
35	Generalized LR Parsing Algorithm for Grammars with One-Sided Contexts. Theory of Computing Systems, 2017, 61, 581-605.	0.7	12
36	The Quotient Operation on Input-Driven Pushdown Automata. Lecture Notes in Computer Science, 2017, , 299-310.	1.0	4

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37	Conjunctive Categorical Grammars. , 2017, , .		7
38	Equations over sets of integers with addition only. Journal of Computer and System Sciences, 2016, 82, 1007-1019.	0.9	0
39	Least and greatest solutions of equations over sets of integers. Theoretical Computer Science, 2016, 619, 68-86.	0.5	0
40	Input-driven languages are linear conjunctive. Theoretical Computer Science, 2016, 618, 52-71.	0.5	11
41	Descriptive Complexity of Formal Systems. Theoretical Computer Science, 2016, 610, 1.	0.5	1
42	The Hardest Language for Conjunctive Grammars. Lecture Notes in Computer Science, 2016, , 340-351.	1.0	2
43	Approximate Unification in the Description Logic \mathcal{FL}_0 . Lecture Notes in Computer Science, 2016, , 49-63.	1.0	4
44	Descriptive complexity of unambiguous input-driven pushdown automata. Theoretical Computer Science, 2015, 566, 1-11.	0.5	12
45	Improved normal form for grammars with one-sided contexts. Theoretical Computer Science, 2015, 588, 52-72.	0.5	4
46	Two-sided context specifications in formal grammars. Theoretical Computer Science, 2015, 591, 134-153.	0.5	8
47	Linear grammars with one-sided contexts and their automaton representation. RAIRO - Theoretical Informatics and Applications, 2015, 49, 153-178.	0.5	6
48	Generalized LR Parsing for Grammars with Contexts. Lecture Notes in Computer Science, 2015, , 67-79.	1.0	0
49	On language equations with concatenation and various sets of Boolean operations. RAIRO - Theoretical Informatics and Applications, 2015, 49, 205-232.	0.5	0
50	Complexity of input-driven pushdown automata. ACM SIGACT News, 2014, 45, 47-67.	0.1	46
51	Computational completeness of equations over sets of natural numbers. Information and Computation, 2014, 237, 56-94.	0.5	9
52	An extension of context-free grammars with one-sided context specifications. Information and Computation, 2014, 237, 268-293.	0.5	21
53	Parsing by matrix multiplication generalized to Boolean grammars. Theoretical Computer Science, 2014, 516, 101-120.	0.5	28
54	Input-Driven Pushdown Automata with Limited Nondeterminism. Lecture Notes in Computer Science, 2014, , 84-102.	1.0	4

#	ARTICLE	IF	CITATIONS
55	Transforming Two-Way Alternating Finite Automata to One-Way Nondeterministic Automata. Lecture Notes in Computer Science, 2014, , 291-302.	1.0	7
56	On the Determinization Blowup for Finite Automata Recognizing Equal-Length Languages. Lecture Notes in Computer Science, 2014, , 71-82.	1.0	0
57	Conjunctive and Boolean grammars: The true general case of the context-free grammars. Computer Science Review, 2013, 9, 27-59.	10.2	52
58	On Language Equations with One-sided Concatenation. Fundamenta Informaticae, 2013, 126, 1-35.	0.3	5
59	HOMOMORPHISMS PRESERVING DETERMINISTIC CONTEXT-FREE LANGUAGES. International Journal of Foundations of Computer Science, 2013, 24, 1049-1066.	0.8	2
60	Unambiguous Conjunctive Grammars over a One-Letter Alphabet. Lecture Notes in Computer Science, 2013, , 277-288.	1.0	2
61	Reversibility of Computations in Graph-Walking Automata. Lecture Notes in Computer Science, 2013, , 595-606.	1.0	7
62	Improved Normal Form for Grammars with One-Sided Contexts. Lecture Notes in Computer Science, 2013, , 205-216.	1.0	3
63	On the Number of Nonterminal Symbols in Unambiguous Conjunctive Grammars. Lecture Notes in Computer Science, 2012, , 183-195.	1.0	3
64	Language Equations with Symmetric Difference. Fundamenta Informaticae, 2012, 116, 205-222.	0.3	4
65	State complexity of operations on two-way finite automata over a unary alphabet. Theoretical Computer Science, 2012, 449, 106-118.	0.5	12
66	Parsing Boolean grammars over a one-letter alphabet using online convolution. Theoretical Computer Science, 2012, 457, 149-157.	0.5	6
67	Representing Hyper-arithmetical Sets by Equations over Sets of Integers. Theory of Computing Systems, 2012, 51, 196-228.	0.7	6
68	Unambiguous finite automata over a unary alphabet. Information and Computation, 2012, 212, 15-36.	0.5	28
69	On the expressive power of univariate equations over sets of natural numbers. Information and Computation, 2012, 212, 1-14.	0.5	10
70	Language equations with complementation: Expressive power. Theoretical Computer Science, 2012, 416, 71-86.	0.5	5
71	Descriptive Complexity of Input-Driven Pushdown Automata. Lecture Notes in Computer Science, 2012, , 186-206.	1.0	4
72	Non-erasing Variants of the Chomsky-Schützenberger Theorem. Lecture Notes in Computer Science, 2012, , 121-129.	1.0	13

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73	Defining Contexts in Context-Free Grammars. Lecture Notes in Computer Science, 2012, , 106-118.	1.0	4
74	Homomorphisms Preserving Deterministic Context-Free Languages. Lecture Notes in Computer Science, 2012, , 154-165.	1.0	0
75	On the State Complexity of Star of Union and Star of Intersection. Fundamenta Informaticae, 2011, 109, 161-178.	0.3	12
76	State Complexity of Union and Intersection for Two-way Nondeterministic Finite Automata. Fundamenta Informaticae, 2011, 110, 231-239.	0.3	8
77	Expressive power of LL(k) Boolean grammars. Theoretical Computer Science, 2011, 412, 5132-5155.	0.5	5
78	State Complexity of Operations on Input-Driven Pushdown Automata. Lecture Notes in Computer Science, 2011, , 485-496.	1.0	5
79	Descriptive Complexity of Unambiguous Nested Word Automata. Lecture Notes in Computer Science, 2011, , 414-426.	1.0	5
80	Complexity of Equations over Sets of Natural Numbers. Theory of Computing Systems, 2011, 48, 319-342.	0.7	19
81	One-Nonterminal Conjunctive Grammars over a Unary Alphabet. Theory of Computing Systems, 2011, 49, 319-342.	0.7	11
82	A simple P-complete problem and its language-theoretic representations. Theoretical Computer Science, 2011, 412, 68-82.	0.5	5
83	ON EQUATIONS OVER SETS OF NUMBERS AND THEIR LIMITATIONS. International Journal of Foundations of Computer Science, 2011, 22, 377-393.	0.8	8
84	Describing Periodicity in Two-Way Deterministic Finite Automata Using Transformation Semigroups. Lecture Notes in Computer Science, 2011, , 324-336.	1.0	20
85	Univariate Equations Over Sets of Natural Numbers. Fundamenta Informaticae, 2010, 104, 329-348.	0.3	0
86	Conjunctive Grammars over a Unary Alphabet: Undecidability and Unbounded Growth. Theory of Computing Systems, 2010, 46, 27-58.	0.7	39
87	Computational power of two stacks with restricted communication. Information and Computation, 2010, 208, 1060-1089.	0.5	1
88	Decision problems for language equations. Journal of Computer and System Sciences, 2010, 76, 251-266.	0.9	26
89	On stateless multihead automata: Hierarchies and the emptiness problem. Theoretical Computer Science, 2010, 411, 581-593.	0.5	12
90	Conjunctive grammars with restricted disjunction. Theoretical Computer Science, 2010, 411, 2559-2571.	0.5	16

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91	BOOLEAN GRAMMARS AND GSM MAPPINGS. International Journal of Foundations of Computer Science, 2010, 21, 799-815.	0.8	12
92	On the State Complexity of Scattered Substrings and Superstrings. Fundamenta Informaticae, 2010, 99, 325-338.	0.3	13
93	On Language Equations $XXK^m = \hat{a}^n XXL$ and $XM^m = \hat{a}^n N$ over a Unary Alphabet. Lecture Notes in Computer Science, 2010, , 291-302.	1.0	9
94	Fast Parsing for Boolean Grammars: A Generalization of Valiant's Algorithm. Lecture Notes in Computer Science, 2010, , 340-351.	1.0	11
95	Least and Greatest Solutions of Equations over Sets of Integers. Lecture Notes in Computer Science, 2010, , 441-452.	1.0	3
96	Unambiguous Finite Automata over a Unary Alphabet. Lecture Notes in Computer Science, 2010, , 556-567.	1.0	10
97	State complexity of power. Theoretical Computer Science, 2009, 410, 2377-2392.	0.5	41
98	One-Nonterminal Conjunctive Grammars over a Unary Alphabet. Lecture Notes in Computer Science, 2009, , 191-202.	1.0	1
99	Conjunctive Grammars with Restricted Disjunction. Lecture Notes in Computer Science, 2009, , 425-436.	1.0	0
100	On Equations over Sets of Numbers and Their Limitations. Lecture Notes in Computer Science, 2009, , 360-371.	1.0	1
101	Unambiguous Boolean grammars. Information and Computation, 2008, 206, 1234-1247.	0.5	20
102	On the expressive power of univariate equations over sets of natural numbers. International Federation for Information Processing, 2008, , 215-227.	0.4	5
103	On the Computational Completeness of Equations over Sets of Natural Numbers. Lecture Notes in Computer Science, 2008, , 63-74.	1.0	17
104	On Stateless Multihead Automata: Hierarchies and the Emptiness Problem. , 2008, , 94-105.		11
105	On the State Complexity of Operations on Two-Way Finite Automata. Lecture Notes in Computer Science, 2008, , 443-454.	1.0	11
106	State complexity of cyclic shift. RAIRO - Theoretical Informatics and Applications, 2008, 42, 335-360.	0.5	35
107	NOTES ON DUAL CONCATENATION. International Journal of Foundations of Computer Science, 2007, 18, 1361-1370.	0.8	2
108	Language equations with complementation: Decision problems. Theoretical Computer Science, 2007, 376, 112-126.	0.5	9

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109	Recursive descent parsing for Boolean grammars. Acta Informatica, 2007, 44, 167-189.	0.5	20
110	Expressive Power of LL(k) Boolean Grammars. Lecture Notes in Computer Science, 2007, , 446-457.	1.0	3
111	Conjunctive Grammars over a Unary Alphabet: Undecidability and Unbounded Growth. Lecture Notes in Computer Science, 2007, , 168-181.	1.0	4
112	Computing by commuting. Theoretical Computer Science, 2006, 356, 200-211.	0.5	7
113	GENERALIZED LR PARSING ALGORITHM FOR BOOLEAN GRAMMARS. International Journal of Foundations of Computer Science, 2006, 17, 629-664.	0.8	20
114	Language Equations with Symmetric Difference. Lecture Notes in Computer Science, 2006, , 292-303.	1.0	6
115	LR Parsing for Boolean Grammars. Lecture Notes in Computer Science, 2005, , 362-373.	1.0	2
116	Unresolved systems of language equations: Expressive power and decision problems. Theoretical Computer Science, 2005, 349, 283-308.	0.5	15
117	The dual of concatenation. Theoretical Computer Science, 2005, 345, 425-447.	0.5	22
118	A CHARACTERIZATION OF THE ARITHMETICAL HIERARCHY BY LANGUAGE EQUATIONS. International Journal of Foundations of Computer Science, 2005, 16, 985-998.	0.8	2
119	Strict Language Inequalities and Their Decision Problems. Lecture Notes in Computer Science, 2005, , 708-719.	1.0	7
120	On Computational Universality in Language Equations. Lecture Notes in Computer Science, 2005, , 292-303.	1.0	3
121	Boolean grammars. Information and Computation, 2004, 194, 19-48.	0.5	86
122	Representing recursively enumerable languages by iterated deletion. Theoretical Computer Science, 2004, 314, 451-457.	0.5	4
123	On the number of nonterminals in linear conjunctive grammars. Theoretical Computer Science, 2004, 320, 419-448.	0.5	11
124	On the equivalence of linear conjunctive grammars and trellis automata. RAIRO - Theoretical Informatics and Applications, 2004, 38, 69-88.	0.5	52
125	The Dual of Concatenation. Lecture Notes in Computer Science, 2004, , 698-710.	1.0	1
126	The hardest linear conjunctive language. Information Processing Letters, 2003, 86, 247-253.	0.4	8

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127	On the closure properties of linear conjunctive languages. Theoretical Computer Science, 2003, 299, 663-685.	0.5	15
128	A recognition and parsing algorithm for arbitrary conjunctive grammars. Theoretical Computer Science, 2003, 302, 365-399.	0.5	17
129	EFFICIENT AUTOMATON-BASED RECOGNITION FOR LINEAR CONJUNCTIVE LANGUAGES. International Journal of Foundations of Computer Science, 2003, 14, 1103-1116.	0.8	6
130	Whale Calf, a Parser Generator for Conjunctive Grammars. Lecture Notes in Computer Science, 2003, , 213-220.	1.0	2
131	Boolean Grammars. Lecture Notes in Computer Science, 2003, , 398-410.	1.0	4
132	Top-Down Parsing of Conjunctive Languages. Grammars, 2002, 5, 21-40.	0.4	12
133	LR Parsing for Conjunctive Grammars. Grammars, 2002, 5, 81-124.	0.4	11
134	Conjunctive Grammars and Systems of Language Equations. Programming and Computer Software, 2002, 28, 243-249.	0.5	36
135	Representing a P-complete problem by small trellis automata. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 1, 185-198.	0.8	0
136	Nondeterministic State Complexity of Positional Addition. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 3, 151-161.	0.8	0
137	Grammars with two-sided contexts. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 151, 94-108.	0.8	0