

# Lila Kari

## List of Publications by Year in descending order

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Version: 2024-02-01

114  
papers

2,663  
citations

361413

20  
h-index

276875

41  
g-index

128  
all docs

128  
docs citations

128  
times ranked

2413  
citing authors

#	ARTICLE	IF	CITATIONS
1	Machine learning using intrinsic genomic signatures for rapid classification of novel pathogens: COVID-19 case study. PLoS ONE, 2020, 15, e0232391.	2.5	761
2	The many facets of natural computing. Communications of the ACM, 2008, 51, 72-83.	4.5	166
3	Contextual Insertions/Deletions and Computability. Information and Computation, 1996, 131, 47-61.	0.7	115
4	DNA computing, sticker systems, and universality. Acta Informatica, 1998, 35, 401-420.	0.5	98
5	The spectrum of genomic signatures: from dinucleotides to chaos game representation. Gene, 2005, 346, 173-185.	2.2	96
6	The evolution of cellular computing: nature's solution to a computational problem. BioSystems, 1999, 52, 3-13.	2.0	86
7	An open-source k-mer based machine learning tool for fast and accurate subtyping of HIV-1 genomes. PLoS ONE, 2018, 13, e0206409.	2.5	70
8	On language equations with invertible operations. Theoretical Computer Science, 1994, 132, 129-150.	0.9	52
9	ML-DSP: Machine Learning with Digital Signal Processing for ultrafast, accurate, and scalable genome classification at all taxonomic levels. BMC Genomics, 2019, 20, 267.	2.8	42
10	Sticky-free and overhang-free DNA languages. Acta Informatica, 2003, 40, 119-157.	0.5	41
11	Coding properties of DNA languages. Theoretical Computer Science, 2003, 290, 1557-1579.	0.9	40
12	Watson-Crick palindromes in DNA computing. Natural Computing, 2010, 9, 297-316.	3.0	40
13	Using DNA to solve the Bounded Post Correspondence Problem. Theoretical Computer Science, 2000, 231, 193-203.	0.9	38
14	Closure and decidability properties of some language classes with respect to ciliate bio-operations. Theoretical Computer Science, 2003, 306, 19-38.	0.9	31
15	Mapping the Space of Genomic Signatures. PLoS ONE, 2015, 10, e0119815.	2.5	30
16	On a special class of primitive words. Theoretical Computer Science, 2010, 411, 617-630.	0.9	28
17	Negative Interactions in Irreversible Self-assembly. Algorithmica, 2013, 66, 153-172.	1.3	26
18	L Systems. , 1997, , 253-328.		26

#	ARTICLE	IF	CITATIONS
19	On properties of bond-free DNA languages. Theoretical Computer Science, 2005, 334, 131-159.	0.9	23
20	An investigation into inter- and intragenomic variations of graphic genomic signatures. BMC Bioinformatics, 2015, 16, 246.	2.6	23
21	Insertion and deletion closure of languages. Theoretical Computer Science, 1997, 183, 3-19.	0.9	21
22	Shuffle and scattered deletion closure of languages. Theoretical Computer Science, 2000, 245, 115-133.	0.9	21
23	Watson-Crick Conjugate and Commutative Words. , 2007, , 273-283.		21
24	Universal Molecular Computation in Ciliates. Natural Computing Series, 2002, , 257-274.	2.2	21
25	DeLUCS: Deep learning for unsupervised clustering of DNA sequences. PLoS ONE, 2022, 17, e0261531.	2.5	21
26	Aspects of shuffle and deletion on trajectories. Theoretical Computer Science, 2005, 332, 47-61.	0.9	19
27	The Undecidability of the Infinite Ribbon Problem: Implications for Computing by Self-Assembly. SIAM Journal on Computing, 2009, 38, 2356-2381.	1.0	19
28	Additive methods for genomic signatures. BMC Bioinformatics, 2016, 17, 313.	2.6	19
29	MLDSP-GUI: an alignment-free standalone tool with an interactive graphical user interface for DNA sequence comparison and analysis. Bioinformatics, 2020, 36, 2258-2259.	4.1	19
30	At the crossroads of DNA computing and formal languages: Characterizing recursively enumerable languages using insertion-deletion systems. DIMACS Series in Discrete Mathematics and Theoretical Computer Science, 1999, , 329-346.	0.0	19
31	Teams in cooperating grammar systems. Journal of Experimental and Theoretical Artificial Intelligence, 1995, 7, 347-359.	2.8	18
32	State complexity of combined operations with two basic operations. Theoretical Computer Science, 2012, 437, 82-102.	0.9	18
33	Coding Properties of DNA Languages. Lecture Notes in Computer Science, 2002, , 57-69.	1.3	18
34	DNA Computing: Models and Implementations. Comments on Theoretical Biology, 2002, 7, 177-198.	0.6	18
35	INVOLUTIVELY BORDERED WORDS. International Journal of Foundations of Computer Science, 2007, 18, 1089-1106.	1.1	17
36	Hairpin Structures in DNA Words. Lecture Notes in Computer Science, 2006, , 158-170.	1.3	17

#	ARTICLE	IF	CITATIONS
37	Reversible Molecular Computation in Ciliates. , 1999, , 353-363.		17
38	Maximal and Minimal Solutions to Language Equations. Journal of Computer and System Sciences, 1996, 53, 487-496.	1.2	16
39	On the weight of universal insertion grammars. Theoretical Computer Science, 2008, 396, 264-270.	0.9	15
40	K-Comma Codes and Their Generalizations. Fundamenta Informaticae, 2011, 107, 1-18.	0.4	13
41	STATE COMPLEXITY OF TWO COMBINED OPERATIONS: CATENATION-UNION AND CATENATION-INTERSECTION. International Journal of Foundations of Computer Science, 2011, 22, 1797-1812.	1.1	13
42	DNA Computing " Foundations and Implications. , 2012, , 1073-1127.		13
43	One-reversal counter machines and multihead automata: Revisited. Theoretical Computer Science, 2012, 454, 81-87.	0.9	13
44	On the overlap assembly of strings and languages. Natural Computing, 2017, 16, 175-185.	3.0	13
45	Negative Interactions in Irreversible Self-assembly. Lecture Notes in Computer Science, 2011, , 37-48.	1.3	13
46	BOND-FREE LANGUAGES: FORMALIZATIONS, MAXIMALITY AND CONSTRUCTION METHODS. International Journal of Foundations of Computer Science, 2005, 16, 1039-1070.	1.1	12
47	Some Properties of Ciliate Bio-operations. Lecture Notes in Computer Science, 2003, , 116-127.	1.3	12
48	PROPERTIES OF PSEUDO-PRIMITIVE WORDS AND THEIR APPLICATIONS. International Journal of Foundations of Computer Science, 2011, 22, 447-471.	1.1	11
49	Deletion operations: closure properties. International Journal of Computer Mathematics, 1994, 52, 23-42.	1.8	10
50	K-catenation and applications:k-prefix codes. Journal of Information and Optimization Sciences, 1995, 16, 263-276.	0.3	10
51	Language equations, maximality and error-detection. Journal of Computer and System Sciences, 2005, 70, 157-178.	1.2	10
52	The syntactic monoid of hairpin-free languages. Acta Informatica, 2007, 44, 153-166.	0.5	10
53	On pseudoknot-bordered words and their properties. Journal of Computer and System Sciences, 2009, 75, 113-121.	1.2	10
54	STATE COMPLEXITY OF TWO COMBINED OPERATIONS: CATENATION-STAR AND CATENATION-REVERSAL. International Journal of Foundations of Computer Science, 2012, 23, 51-66.	1.1	10

#	ARTICLE	IF	CITATIONS
55	Further remarks on DNA overlap assembly. Information and Computation, 2017, 253, 143-154.	0.7	10
56	DNA computing in vitro and in vivo. Future Generation Computer Systems, 2001, 17, 823-834.	7.5	9
57	An extension of the Lyndon-Schützenberger result to pseudoperiodic words. Information and Computation, 2011, 209, 717-730.	0.7	9
58	Pseudopower Avoidance. Fundamenta Informaticae, 2012, 114, 55-72.	0.4	8
59	A Formal Language Model of DNA Polymerase Enzymatic Activity. Fundamenta Informaticae, 2015, 138, 179-192.	0.4	8
60	Bond-Free Languages: Formalizations, Maximality and Construction Methods. Lecture Notes in Computer Science, 2005, , 169-181.	1.3	8
61	How to Compute with DNA. Lecture Notes in Computer Science, 1999, , 269-282.	1.3	8
62	Insertion and deletion of words: Determinism and reversibility. Lecture Notes in Computer Science, 1992, , 315-326.	1.3	8
63	Computing with DNA. , 2000, 132, 413-430.		7
64	MoDMaps3D: an interactive webtool for the quantification and 3D visualization of interrelationships in a dataset of DNA sequences. Bioinformatics, 2017, 33, 3091-3093.	4.1	7
65	Binary Pattern Tile Set Synthesis Is NP-hard. Lecture Notes in Computer Science, 2015, , 1022-1034.	1.3	7
66	On parallel deletions applied to a word. RAIRO - Theoretical Informatics and Applications, 1995, 29, 129-144.	0.5	7
67	WATSON-CRICK BORDERED WORDS AND THEIR SYNTACTIC MONOID. International Journal of Foundations of Computer Science, 2008, 19, 1163-1179.	1.1	6
68	An Improved Bound for an Extension of Fine and Wilf's Theorem and Its Optimality. Fundamenta Informaticae, 2010, 101, 215-236.	0.4	6
69	3-Color Bounded Patterned Self-assembly. Lecture Notes in Computer Science, 2013, , 105-117.	1.3	6
70	Deletion Sets. Fundamenta Informaticae, 1993, 19, 355-370.	0.4	6
71	SCHEMA FOR PARALLEL INSERTION AND DELETION: REVISITED. International Journal of Foundations of Computer Science, 2011, 22, 1655-1668.	1.1	5
72	State complexity of union and intersection of square and reversal on $\langle \text{mml:math altimg="si1.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/co$	0.9	5

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73	State complexity of star of union and square of union on k regular languages. Theoretical Computer Science, 2013, 499, 38-50.	0.9	5
74	On the maximality of languages with combined types of code properties. Theoretical Computer Science, 2014, 550, 79-89.	0.9	5
75	State Complexity of Overlap Assembly. Lecture Notes in Computer Science, 2018, , 109-120.	1.3	5
76	OPERATIONS ON TRAJECTORIES WITH APPLICATIONS TO CODING AND BIOINFORMATICS. International Journal of Foundations of Computer Science, 2005, 16, 531-546.	1.1	4
77	DE BRUIJN SEQUENCES REVISITED. International Journal of Foundations of Computer Science, 2012, 23, 1307-1321.	1.1	4
78	Binary Pattern Tile Set Synthesis Is NP-Hard. Algorithmica, 2017, 78, 1-46.	1.3	4
79	Schema for Parallel Insertion and Deletion. Lecture Notes in Computer Science, 2010, , 267-278.	1.3	4
80	Twin-roots of words and their properties. Theoretical Computer Science, 2009, 410, 2393-2400.	0.9	3
81	On the Regularity of Iterated Hairpin Completion of a Single Word. Fundamenta Informaticae, 2011, 110, 201-215.	0.4	3
82	3-color bounded patterned self-assembly. Natural Computing, 2015, 14, 279-292.	3.0	3
83	Transducer Descriptions of DNA Code Properties and Undecidability of Antimorphic Problems. Lecture Notes in Computer Science, 2015, , 141-152.	1.3	3
84	Iterated Hairpin Completions of Non-crossing Words. Lecture Notes in Computer Science, 2012, , 337-348.	1.3	3
85	Power of controlled insertion and deletion. Lecture Notes in Computer Science, 1994, , 197-212.	1.3	3
86	Disjunctivity and other properties of sets of pseudo-bordered words. Acta Informatica, 2017, 54, 379-398.	0.5	2
87	Word Blending in Formal Languages: The Brangelina Effect. Lecture Notes in Computer Science, 2018, , 72-85.	1.3	2
88	Involution Solid and Join Codes. Lecture Notes in Computer Science, 2006, , 192-202.	1.3	2
89	State Complexity of Simple Splicing. Lecture Notes in Computer Science, 2019, , 197-209.	1.3	2
90	Generalized Derivatives. Fundamenta Informaticae, 1993, 18, 27-39.	0.4	2

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91	TWO LOWER BOUNDS ON DISTRIBUTIVE GENERATION OF LANGUAGES. Fundamenta Informaticae, 1996, 25, 271-284.	0.4	1
92	TOWARDS A DNA SOLUTION TO THE SHORTEST COMMON SUPERSTRING PROBLEM. International Journal on Artificial Intelligence Tools, 1999, 08, 385-399.	1.0	1
93	<i>k</i> -involution codes and related sets. Journal of Discrete Mathematical Sciences and Cryptography, 2007, 10, 485-503.	0.8	1
94	Geometrical tile design for complex neighborhoods. Frontiers in Computational Neuroscience, 2009, 3, 20.	2.1	1
95	Towards a neighborhood simplification of tile systems: From Moore to quasi-linear dependencies. Natural Computing, 2011, 10, 103-117.	3.0	1
96	ORTHOGONAL SHUFFLE ON TRAJECTORIES. International Journal of Foundations of Computer Science, 2011, 22, 213-222.	1.1	1
97	HYPERGRAPH AUTOMATA: A THEORETICAL MODEL FOR PATTERNED SELF-ASSEMBLY. International Journal of Foundations of Computer Science, 2014, 25, 419-439.	1.1	1
98	Transducer descriptions of DNA code properties and undecidability of antimorphic problems. Information and Computation, 2018, 259, 237-258.	0.7	1
99	Descriptive Complexity of Semi-Simple Splicing Systems. International Journal of Foundations of Computer Science, 2021, 32, 685-711.	1.1	1
100	On the Reversibility of Parallel Insertion, and Its Relation to Comma Codes. Lecture Notes in Computer Science, 2009, , 204-219.	1.3	1
101	Polyominoes simulating arbitrary-neighborhood zippers and tilings. Theoretical Computer Science, 2011, 412, 6083-6100.	0.9	0
102	Smart Tile Self-Assembly and Replication. Fundamenta Informaticae, 2017, 154, 239-260.	0.4	0
103	Efficient Algorithms for Computing the Inner Edit Distance of a Regular Language via Transducers. Algorithms, 2018, 11, 165.	2.1	0
104	Simplifying the role of signals in tile self-assembly. Natural Computing, 2019, 18, 383-401.	3.0	0
105	Conjugate word blending: formal model and experimental implementation by XPCR. Natural Computing, 2021, 20, 647-658.	3.0	0
106	Biocomputing. ACM SIGBIO Newsletter, 2001, 21, 10-15.	0.1	0
107	STRING OPERATIONS SUGGESTED BY DNA BIOCHEMISTRY: THE BALANCED CUT OPERATION. , 2001, , 275-287.		0
108	Towards the Sequence Design Preventing Pseudoknot Formation. Proceedings in Information and Communications Technology, 2009, , 101-110.	0.2	0

#	ARTICLE	IF	CITATIONS
109	Pseudo-power Avoidance. Lecture Notes in Computer Science, 2010, , 432-433.	1.3	0
110	In the prehistory of formal language theory: Gauss languages. , 1993, , 551-562.		0
111	Aperiodic Languages and Generalizations. , 1994, , 233-243.		0
112	State Complexity of Pseudocatenation. Lecture Notes in Computer Science, 2019, , 203-214.	1.3	0
113	State Complexity of Overlap Assembly. International Journal of Foundations of Computer Science, 2020, 31, 1113-1132.	1.1	0
114	SomaticSiMu: a mutational signature simulator. Bioinformatics, 2022, 38, 2619-2620.	4.1	0