

# Travis Gagie

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8947247/publications.pdf>

Version: 2024-02-01

129  
papers

1,675  
citations

361296

20  
h-index

414303

32  
g-index

147  
all docs

147  
docs citations

147  
times ranked

571  
citing authors

#	ARTICLE	IF	CITATIONS
1	Succinct colored de Bruijn graphs. <i>Bioinformatics</i> , 2017, 33, 3181-3187.	1.8	99
2	Lightweight Data Indexing and Compression in External Memory. <i>Algorithmica</i> , 2012, 63, 707-730.	1.0	85
3	New algorithms on wavelet trees and applications to information retrieval. <i>Theoretical Computer Science</i> , 2012, 426-427, 25-41.	0.5	83
4	Fully Functional Suffix Trees and Optimal Text Searching in BWT-Runs Bounded Space. <i>Journal of the ACM</i> , 2020, 67, 1-54.	1.8	74
5	Wheeler graphs: A framework for BWT-based data structures. <i>Theoretical Computer Science</i> , 2017, 698, 67-78.	0.5	65
6	Efficient Fully-Compressed Sequence Representations. <i>Algorithmica</i> , 2014, 69, 232-268.	1.0	51
7	A Faster Grammar-Based Self-index. <i>Lecture Notes in Computer Science</i> , 2012, , 240-251.	1.0	51
8	Range Quantile Queries: Another Virtue of Wavelet Trees. <i>Lecture Notes in Computer Science</i> , 2009, , 1-6.	1.0	47
9	Optimal-Time Text Indexing in BWT-runs Bounded Space. , 2018, , 1459-1477.		44
10	LZ77-Based Self-indexing with Faster Pattern Matching. <i>Lecture Notes in Computer Science</i> , 2014, , 731-742.	1.0	40
11	Variable-Order de Bruijn Graphs. , 2015, , .		39
12	Large alphabets and incompressibility. <i>Information Processing Letters</i> , 2006, 99, 246-251.	0.4	36
13	Efficient Construction of a Complete Index for Pan-Genomics Read Alignment. <i>Journal of Computational Biology</i> , 2020, 27, 500-513.	0.8	35
14	Composite Repetition-Aware Data Structures. <i>Lecture Notes in Computer Science</i> , 2015, , 26-39.	1.0	35
15	Prefix-free parsing for building big BWTs. <i>Algorithms for Molecular Biology</i> , 2019, 14, 13.	0.3	33
16	Alphabet Partitioning for Compressed Rank/Select and Applications. <i>Lecture Notes in Computer Science</i> , 2010, , 315-326.	1.0	33
17	A subquadratic algorithm for minimum palindromic factorization. <i>Journal of Discrete Algorithms</i> , 2014, 28, 41-48.	0.7	28
18	Colored range queries and document retrieval. <i>Theoretical Computer Science</i> , 2013, 483, 36-50.	0.5	27

#	ARTICLE	IF	CITATIONS
19	Refining the r-index. Theoretical Computer Science, 2020, 812, 96-108.	0.5	27
20	Colored Range Queries and Document Retrieval. Lecture Notes in Computer Science, 2010, , 67-81.	1.0	26
21	Searching and Indexing Genomic Databases via Kernelization. Frontiers in Bioengineering and Biotechnology, 2015, 3, 12.	2.0	25
22	MONI: A Pangenomic Index for Finding Maximal Exact Matches. Journal of Computational Biology, 2022, 29, 169-187.	0.8	23
23	Approximate pattern matching in LZ77-compressed texts. Journal of Discrete Algorithms, 2015, 32, 64-68.	0.7	22
24	Queries on LZ-Bounded Encodings. , 2015, , .		21
25	Practical dynamic de Bruijn graphs. Bioinformatics, 2018, 34, 4189-4195.	1.8	18
26	Finding Frequent Elements in Compressed 2D Arrays and Strings. Lecture Notes in Computer Science, 2011, , 295-300.	1.0	18
27	Sparse Dynamic Programming on DAGs with Small Width. ACM Transactions on Algorithms, 2019, 15, 1-21.	0.9	16
28	Rpair: Rescaling RePair with Rsync. Lecture Notes in Computer Science, 2019, , 35-44.	1.0	16
29	Pan-genomic matching statistics for targeted nanopore sequencing. IScience, 2021, 24, 102696.	1.9	15
30	Approximating LZ77 via Small-Space Multiple-Pattern Matching. Lecture Notes in Computer Science, 2015, , 533-544.	1.0	14
31	Fully Dynamic de Bruijn Graphs. Lecture Notes in Computer Science, 2016, , 145-152.	1.0	14
32	Binary Jumbled Pattern Matching on Trees and Tree-Like Structures. Algorithmica, 2015, 73, 571-588.	1.0	13
33	Document retrieval on repetitive string collections. Information Retrieval, 2017, 20, 253-291.	1.6	13
34	Using Minimum Path Cover to Boost Dynamic Programming on DAGs: Co-linear Chaining Extended. Lecture Notes in Computer Science, 2018, , 105-121.	1.0	13
35	Fast and compact planar embeddings. Computational Geometry: Theory and Applications, 2020, 89, 101630.	0.3	13
36	Compressing probability distributions. Information Processing Letters, 2006, 97, 133-137.	0.4	12

#	ARTICLE	IF	CITATIONS
37	Forbidden Patterns. Lecture Notes in Computer Science, 2012, , 327-337.	1.0	12
38	Document Listing on Repetitive Collections. Lecture Notes in Computer Science, 2013, , 107-119.	1.0	12
39	Better Space Bounds for Parameterized Range Majority and Minority. Lecture Notes in Computer Science, 2013, , 121-132.	1.0	12
40	Competitive Boolean function evaluation: Beyond monotonicity, and the symmetric case. Discrete Applied Mathematics, 2011, 159, 1070-1078.	0.5	11
41	Bidirectional Variable-Order de Bruijn Graphs. Lecture Notes in Computer Science, 2016, , 164-178.	1.0	11
42	Explaining a Weighted DAG with Few Paths for Solving Genome-Guided Multi-Assembly. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2015, 12, 1345-1354.	1.9	10
43	Efficient and Compact Representations of Prefix Codes. IEEE Transactions on Information Theory, 2015, 61, 4999-5011.	1.5	10
44	Relative Suffix Trees. Computer Journal, 2018, 61, 773-788.	1.5	10
45	PHONI: Streamed Matching Statistics with Multi-Genome References. , 2021, 2021, 193-202.		10
46	On the Approximation Ratio of Lempel-Ziv Parsing. Lecture Notes in Computer Science, 2018, , 490-503.	1.0	10
47	Move-to-Front, Distance Coding, and Inversion Frequencies revisited. Theoretical Computer Science, 2010, 411, 2925-2944.	0.5	9
48	Block trees. Journal of Computer and System Sciences, 2021, 117, 1-22.	0.9	9
49	Practical Random Access to SLP-Compressed Texts. Lecture Notes in Computer Science, 2020, , 221-231.	1.0	9
50	Indexes for Jumbled Pattern Matching in Strings, Trees and Graphs. Lecture Notes in Computer Science, 2013, , 56-63.	1.0	9
51	Binary Jumbled Pattern Matching on Trees and Tree-Like Structures. Lecture Notes in Computer Science, 2013, , 517-528.	1.0	9
52	Dynamic Shannon coding. Information Processing Letters, 2007, 102, 113-117.	0.4	8
53	Flexible Indexing of Repetitive Collections. Lecture Notes in Computer Science, 2017, , 162-174.	1.0	8
54	Bidirectional Variable-Order de Bruijn Graphs. International Journal of Foundations of Computer Science, 2018, 29, 1279-1295.	0.8	8

#	ARTICLE	IF	CITATIONS
55	Tunneling on Wheeler Graphs. , 2019, , .		8
56	Space-Conscious Compression. Lecture Notes in Computer Science, 2007, , 206-217.	1.0	8
57	New Algorithms for Position Heaps. Lecture Notes in Computer Science, 2013, , 95-106.	1.0	7
58	Faster Compressed Quadrees. , 2015, , .		7
59	Burrowsâ€™Wheeler transform and LCP array construction in constant space. Journal of Discrete Algorithms, 2017, 42, 14-22.	0.7	7
60	PPF Compressed Suffix Trees. , 2021, 2021, 60-72.		7
61	A separation between RLSLPs and LZ77. Journal of Discrete Algorithms, 2018, 50, 36-39.	0.7	6
62	Efficient Construction of a Complete Index for Pan-Genomics Read Alignment. Lecture Notes in Computer Science, 2019, , 158-173.	1.0	6
63	Matching Reads to Many Genomes with the r-Index. Journal of Computational Biology, 2020, 27, 514-518.	0.8	6
64	Buffering updates enables efficient dynamic de Bruijn graphs. Computational and Structural Biotechnology Journal, 2021, 19, 4067-4078.	1.9	6
65	Relative FM-Indexes. Lecture Notes in Computer Science, 2014, , 52-64.	1.0	6
66	Dynamic Shannon Coding. Lecture Notes in Computer Science, 2004, , 359-370.	1.0	6
67	Move-to-Front, Distance Coding, and Inversion Frequencies Revisited. Lecture Notes in Computer Science, 2007, , 71-82.	1.0	6
68	Worst-Case Optimal Adaptive Prefix Coding. Lecture Notes in Computer Science, 2009, , 315-326.	1.0	6
69	Dynamic asymmetric communication. Information Processing Letters, 2008, 108, 352-355.	0.4	5
70	An efficient algorithm to test square-freeness of strings compressed by straight-line programs. Information Processing Letters, 2012, 112, 711-714.	0.4	5
71	Diverse Palindromic Factorization is NP-Complete. International Journal of Foundations of Computer Science, 2018, 29, 143-163.	0.8	5
72	Exploiting Computation-Friendly Graph Compression Methods for Adjacency-Matrix Multiplication. , 2018, , .		5

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73	On the Value of Multiple Read/Write Streams for Data Compression. Lecture Notes in Computer Science, 2009, , 68-77.	1.0	5
74	Minimax Trees in Linear Time with Applications. Lecture Notes in Computer Science, 2009, , 278-288.	1.0	5
75	Fast and Compact Prefix Codes. Lecture Notes in Computer Science, 2010, , 419-427.	1.0	5
76	Diverse Palindromic Factorization Is NP-complete. Lecture Notes in Computer Science, 2015, , 85-96.	1.0	5
77	Entropy-bounded representation of point grids. Computational Geometry: Theory and Applications, 2014, 47, 1-14.	0.3	4
78	Analyzing Relative Lempel-Ziv Reference Construction. Lecture Notes in Computer Science, 2016, , 160-165.	1.0	4
79	An index for moving objects with constant-time access to their compressed trajectories. International Journal of Geographical Information Science, 2021, 35, 1392-1424.	2.2	4
80	New Ways to Construct Binary Search Trees. Lecture Notes in Computer Science, 2003, , 537-543.	1.0	4
81	Indexed Multi-pattern Matching. Lecture Notes in Computer Science, 2012, , 399-407.	1.0	4
82	Finding Maximal Exact Matches Using the r-Index. Journal of Computational Biology, 2022, 29, 188-194.	0.8	4
83	Restructuring binary search trees revisited. Information Processing Letters, 2005, 95, 418-421.	0.4	3
84	A New Algorithm for Building Alphabetic Minimax Trees. Fundamenta Informaticae, 2009, 97, 321-329.	0.3	3
85	Bounds from a card trick. Journal of Discrete Algorithms, 2012, 10, 2-4.	0.7	3
86	Document Counting in Compressed Space. , 2015, , .		3
87	Compressed Spaced Suffix Arrays. Mathematics in Computer Science, 2017, 11, 151-157.	0.2	3
88	Dynamic Asymmetric Communication. Lecture Notes in Computer Science, 2006, , 310-318.	1.0	3
89	Efficient Compression and Indexing of Trajectories. Lecture Notes in Computer Science, 2017, , 103-115.	1.0	3
90	On Two LZ78-style Grammars: Compression Bounds and Compressed-Space Computation. Lecture Notes in Computer Science, 2017, , 51-67.	1.0	3

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91	Grammar-Based Compression in a Streaming Model. Lecture Notes in Computer Science, 2010, , 273-284.	1.0	3
92	Counting Colours in Compressed Strings. Lecture Notes in Computer Science, 2011, , 197-207.	1.0	3
93	Syotti: scalable bait design for DNA enrichment. Bioinformatics, 2022, 38, i177-i184.	1.8	3
94	Low-Memory Adaptive Prefix Coding. , 2009, , .		2
95	Relative Select. Lecture Notes in Computer Science, 2015, , 149-155.	1.0	2
96	Rank and Select Operations on Sequences. , 2016, , 1776-1780.		2
97	Compressed Dynamic Range Majority Data Structures. , 2017, , .		2
98	RLZAP: Relative Lempel-Ziv with Adaptive Pointers. Lecture Notes in Computer Science, 2016, , 1-14.	1.0	2
99	Fast and Compact Planar Embeddings. Lecture Notes in Computer Science, 2017, , 385-396.	1.0	2
100	Compressed Indexes for Repetitive Textual Datasets. , 2019, , 475-480.		2
101	Longest Common Abelian Factors and Large Alphabets. Lecture Notes in Computer Science, 2016, , 254-259.	1.0	2
102	Dynamic Asymmetric Communication. , 0, , .		1
103	Tight bounds for online stable sorting. Journal of Discrete Algorithms, 2011, 9, 176-181.	0.7	1
104	A Note on Sequence Prediction over Large Alphabets. Algorithms, 2012, 5, 50-55.	1.2	1
105	Minimax trees in linear time with applications. European Journal of Combinatorics, 2013, 34, 82-90.	0.5	1
106	A Compact Index for Order-Preserving Pattern Matching. , 2017, , .		1
107	String cadences. Theoretical Computer Science, 2017, 698, 4-8.	0.5	1
108	Two-Dimensional Block Trees. , 2018, , .		1

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109	Path queries on functions. Theoretical Computer Science, 2019, 770, 34-50.	0.5	1
110	A compact index for order-preserving pattern matching. Software - Practice and Experience, 2019, 49, 1041-1051.	2.5	1
111	More Time-Space Tradeoffs for Finding a Shortest Unique Substring. Algorithms, 2020, 13, 234.	1.2	1
112	Compressed Dynamic Range Majority and Minority Data Structures. Algorithmica, 2020, 82, 2063-2086.	1.0	1
113	Maximal unbordered factors of random strings. Theoretical Computer Science, 2021, 852, 78-83.	0.5	1
114	Faster Dynamic Compressed d-ary Relations. Lecture Notes in Computer Science, 2019, , 419-433.	1.0	1
115	Graph Compression for Adjacency-Matrix Multiplication. SN Computer Science, 2022, 3, .	2.3	1
116	Sorting streamed multisets. Information Processing Letters, 2008, 108, 418-421.	0.4	0
117	Compressed depth sequences. Theoretical Computer Science, 2009, 410, 958-962.	0.5	0
118	Relative Lempel-Ziv with Constant-Time Random Access. , 2014, , .		0
119	Block Graphs in Practice. Mathematics in Computer Science, 2017, 11, 191-196.	0.2	0
120	Guest Editorial: Special Issue on Compact Data Structures. Algorithmica, 2018, 80, 1983-1985.	1.0	0
121	Tree path majority data structures. Theoretical Computer Science, 2020, 833, 107-119.	0.5	0
122	Decompressing Lempel-Ziv Compressed Text. , 2020, , .		0
123	Efficiently Merging r-indexes. , 2021, , .		0
124	Range Majorities and Minorities in Arrays. Algorithmica, 2021, 83, 1707-1733.	1.0	0
125	Rank and Select Operations on Sequences. , 2014, , 1-6.		0
126	Indexed Geometric Jumbled Pattern Matching. Lecture Notes in Computer Science, 2014, , 110-119.	1.0	0



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127	Compressed Indexes for Repetitive Textual Datasets. , 2018, , 1-7.		0
128	Efficient and compact representations of some non-canonical prefix-free codes. Theoretical Computer Science, 2022, , .	0.5	0
129	Simple Worst-Case Optimal Adaptive Prefix-Free Coding. , 2022, , .		0