Marek Cygan

List of Publications by Year
in descending order

99 papers	2,841 citations	361413 20 h-index	395702 33 g-index
109 all docs	109 docs citations	109 times ranked	993 citing authors

#	Article	IF	Citations
1	Solving Connectivity Problems Parameterized by Treewidth in Single Exponential Time. ACM Transactions on Algorithms, 2022, 18, 1-31.	1.0	9
2	Special Section on the Fifty-Second Annual ACM Symposium on the Theory of Computing (STOC 2020). SIAM Journal on Computing, 2022, 51, STOC20-i-STOC20-i.	1.0	0
3	Randomized Contractions Meet Lean Decompositions. ACM Transactions on Algorithms, 2021, 17, 1-30.	1.0	13
4	Tight Bounds on Subexponential Time Approximation of Set Cover and Related Problems. Lecture Notes in Computer Science, 2021, , 159-173.	1.3	0
5	From Gap-Exponential Time Hypothesis to Fixed Parameter Tractable Inapproximability: Clique, Dominating Set, and More. SIAM Journal on Computing, 2020, 49, 772-810.	1.0	6
6	Minimum Bisection Is Fixed-Parameter Tractable. SIAM Journal on Computing, 2019, 48, 417-450.	1.0	12
7	Applying deep learning to right whale photo identification. Conservation Biology, 2019, 33, 676-684.	4.7	45
8	On Problems Equivalent to (min,+)-Convolution. ACM Transactions on Algorithms, 2019, 15, 1-25.	1.0	24
9	Fast Hamiltonicity Checking Via Bases of Perfect Matchings. Journal of the ACM, 2018, 65, 1-46.	2.2	18
10	Hardness of Approximation for <i>H</i> -free Edge Modification Problems. ACM Transactions on Computation Theory, 2018, 10, 1-32.	0.7	4
11	Hitting forbidden subgraphs in graphs of bounded treewidth. Information and Computation, 2017, 256, 62-82.	0.7	5
12	Tight Kernel Bounds for Problems on Graphs with Small Degeneracy. ACM Transactions on Algorithms, 2017, 13, 1-22.	1.0	37
13	Polynomial Kernelization for Removing Induced Claws and Diamonds. Theory of Computing Systems, 2017, 60, 615-636.	1.1	8
14	From Gap-ETH to FPT-Inapproximability: Clique, Dominating Set, and More. , 2017, , .		27
15	Tight Lower Bounds on Graph Embedding Problems. Journal of the ACM, 2017, 64, 1-22.	2.2	10
16	Online Pricing with Impatient Bidders. , 2016, , .		2
17	On Problems as Hard as CNF-SAT. ACM Transactions on Algorithms, 2016, 12, 1-24.	1.0	52
18	Tight Bounds for Graph Homomorphism and Subgraph Isomorphism. , 2016, , .		5

#	ARTICLE	IF	CITATIONS
19	Known Algorithms for Edge Clique Cover are Probably Optimal. SIAM Journal on Computing, 2016, 45, 67-83.	1.0	42
20	Polynomial-time approximation algorithms for weighted LCS problem. Discrete Applied Mathematics, 2016, 204, 38-48.	0.9	7
21	Polynomial Kernelization for Removing Induced Claws and Diamonds. Lecture Notes in Computer Science, 2016, , 440-455.	1.3	1
22	Algorithmic Complexity of Power Law Networks. , 2016, , .		6
23	Designing FPT Algorithms for Cut Problems Using Randomized Contractions. SIAM Journal on Computing, 2016, 45, 1171-1229.	1.0	39
24	Lower bounds for the parameterized complexity of Minimum Fill-In and other completion problems. , 2016, , .		5
25	Foreword: Special Issue on IPEC 2014. Algorithmica, 2016, 75, 255-256.	1.3	0
26	Online Knapsack Revisited. Theory of Computing Systems, 2016, 58, 153-190.	1.1	16
27	On Group Feedback Vertex Set Parameterized by the Size of the Cutset. Algorithmica, 2016, 74, 630-642.	1.3	8
28	A Fast Branching Algorithm for Cluster Vertex Deletion. Theory of Computing Systems, 2016, 58, 357-376.	1.1	38
29	Randomized Contraction. , 2016, , 1738-1741.		0
30	Exact Algorithms for Bandwidth. , 2016, , 664-667.		0
31	Faster exponential-time algorithms in graphs of bounded average degree. Information and Computation, 2015, 243, 75-85.	0.7	9
32	Kernelization lower bound for Permutation Pattern Matching. Information Processing Letters, 2015, 115, 527-531.	0.6	1
33	Sitting Closer to Friends than Enemies, Revisited. Theory of Computing Systems, 2015, 56, 394-405.	1.1	7
34	Directed Subset Feedback Vertex Set Is Fixed-Parameter Tractable. ACM Transactions on Algorithms, 2015, 11, 1-28.	1.0	26
35	Parameterized Algorithms. , 2015, , .		991
36	Deterministic single exponential time algorithms for connectivity problems parameterized by treewidth. Information and Computation, 2015, 243, 86-111.	0.7	141

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37	Algorithmic Applications of Baur-Strassenâ€™s Theorem. Journal of the ACM, 2015, 62, 1-30.	2.2	18
38	Exact Algorithms for Bandwidth. , 2015, , 1-4.		0
39	Clique Cover and Graph Separation. ACM Transactions on Computation Theory, 2014, 6, 1-19.	0.7	50
40	Minimum bisection is fixed parameter tractable. , 2014, , .		19
41	On the Hardness of Losing Width. Theory of Computing Systems, 2014, 54, 73-82.	1.1	12
42	Solving the 2-Disjoint Connected Subgraphs Problem Faster than 2 n. Algorithmica, 2014, 70, 195-207.	1.3	38
43	On Cutwidth Parameterized by Vertex Cover. Algorithmica, 2014, 68, 940-953.	1.3	9
44	Scheduling Partially Ordered Jobs Faster than 2 n. Algorithmica, 2014, 68, 692-714.	1.3	4
45	Parameterized Complexity of Eulerian Deletion Problems. Algorithmica, 2014, 68, 41-61.	1.3	30
46	Parameterized complexity of firefighting. Journal of Computer and System Sciences, 2014, 80, 1285-1297.	1.2	19
47	A Fast Branching Algorithm for Cluster Vertex Deletion. Lecture Notes in Computer Science, 2014, , 111-124.	1.3	8
48	Online Knapsack Revisited. Lecture Notes in Computer Science, 2014, , 144-155.	1.3	2
49	The Planar Directed K-Vertex-Disjoint Paths Problem Is Fixed-Parameter Tractable. , 2013, , .		24
50	Steiner Forest Orientation Problems. SIAM Journal on Discrete Mathematics, 2013, 27, 1503-1513.	0.8	8
51	Split Vertex Deletion meets Vertex Cover: New fixed-parameter and exact exponential-time algorithms. Information Processing Letters, 2013, 113, 179-182.	0.6	20
52	Fast hamiltonicity checking via bases of perfect matchings. , 2013, , .		28
53	Catch them if you can. , 2013, , .		0
54	On multiway cut parameterized above lower bounds. ACM Transactions on Computation Theory, 2013, 5, 1-11.	0.7	54

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55	Improved Approximation for 3-Dimensional Matching via Bounded Pathwidth Local Search. , 2013, , .		40
56	Subset Feedback Vertex Set Is Fixed-Parameter Tractable. SIAM Journal on Discrete Mathematics, 2013, 27, 290-309.	0.8	49
57	Deterministic Single Exponential Time Algorithms for Connectivity Problems Parameterized by Treewidth. Lecture Notes in Computer Science, 2013, , 196-207.	1.3	29
58	Tight Kernel Bounds for Problems on Graphs with Small Degeneracy. Lecture Notes in Computer Science, 2013, , 361-372.	1.3	7
59	How to Sell Hyperedges: The Hypermatching Assignment Problem. , 2013, , .		20
60	Even Faster Exact Bandwidth. ACM Transactions on Algorithms, 2012, 8, 1-14.	1.0	8
61	On Problems as Hard as CNF-SAT. , 2012, , .		47
62	Algorithmic Applications of Baur-Strassen's Theorem: Shortest Cycles, Diameter and Matchings. , 2012, , .		9
63	A Polynomial Algorithm for 3-Compatible Coloring and the Stubborn List Partition Problem (The) Tj ETQq1 1 0.784314 rgBT /Overlock	1.0	2
64	Designing FPT Algorithms for Cut Problems Using Randomized Contractions. , 2012, , .		18
65	LP Rounding for k-Centers with Non-uniform Hard Capacities. , 2012, , .		26
66	Kernelization hardness of connectivity problems in d-degenerate graphs. Discrete Applied Mathematics, 2012, 160, 2131-2141.	0.9	48
67	An Improved FPT Algorithm and a Quadratic Kernel for Pathwidth One Vertex Deletion. Algorithmica, 2012, 64, 170-188.	1.3	11
68	Bandwidth and distortion revisited. Discrete Applied Mathematics, 2012, 160, 494-504.	0.9	8
69	A Planar linear arboricity conjecture. Journal of Graph Theory, 2012, 69, 403-425.	0.9	18
70	On Multiway Cut Parameterized above Lower Bounds. Lecture Notes in Computer Science, 2012, , 1-12.	1.3	23
71	On the Hardness of Losing Width. Lecture Notes in Computer Science, 2012, , 159-168.	1.3	8
72	Parameterized Complexity of Firefighting Revisited. Lecture Notes in Computer Science, 2012, , 13-26.	1.3	12

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73	On Cutwidth Parameterized by Vertex Cover. Lecture Notes in Computer Science, 2012, , 246-258.	1.3	6
74	Solving the 2-Disjoint Connected Subgraphs Problem Faster Than 2 n. Lecture Notes in Computer Science, 2012, , 195-206.	1.3	3
75	Deterministic Parameterized Connected Vertex Cover. Lecture Notes in Computer Science, 2012, , 95-106.	1.3	19
76	Directed Subset Feedback Vertex Set Is Fixed-Parameter Tractable. Lecture Notes in Computer Science, 2012, , 230-241.	1.3	7
77	Clique Cover and Graph Separation: New Incompressibility Results. Lecture Notes in Computer Science, 2012, , 254-265.	1.3	15
78	Sitting Closer to Friends Than Enemies, Revisited. Lecture Notes in Computer Science, 2012, , 296-307.	1.3	18
79	A Path-Decomposition Theorem with Applications to Pricing and Covering on Trees. Lecture Notes in Computer Science, 2012, , 349-360.	1.3	2
80	On Group Feedback Vertex Set Parameterized by the Size of the Cutset. Lecture Notes in Computer Science, 2012, , 194-205.	1.3	6
81	Steiner Forest Orientation Problems. Lecture Notes in Computer Science, 2012, , 361-372.	1.3	2
82	Solving Connectivity Problems Parameterized by Treewidth in Single Exponential Time. , 2011, , .		153
83	Dominating set is fixed parameter tractable in claw-free graphs. Theoretical Computer Science, 2011, 412, 6982-7000.	0.9	22
84	Capacitated domination faster than. Information Processing Letters, 2011, 111, 1099-1103.	0.6	10
85	Breaking the <mml:math altimg="si1.gif" 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/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/x	0.7	19
86	Channel assignment via fast zeta transform. Information Processing Letters, 2011, 111, 727-730.	0.6	10
87	The stubborn problem is stubborn no more (a polynomial algorithm for 3â€"compatible colouring and) Tj ETQq1 1 0.784314 rgBT /Over	4
88	Parameterized Complexity of Eulerian Deletion Problems. Lecture Notes in Computer Science, 2011, , 131-142.	1.3	5
89	Subset Feedback Vertex Set Is Fixed-Parameter Tractable. Lecture Notes in Computer Science, 2011, , 449-461.	1.3	10
90	Polynomial-Time Approximation Algorithms for Weighted LCS Problem. Lecture Notes in Computer Science, 2011, , 455-466.	1.3	1

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91	Exact and approximate bandwidth. Theoretical Computer Science, 2010, 411, 3701-3713.	0.9	49
92	Irredundant Set Faster Than O(2 n). Lecture Notes in Computer Science, 2010, , 288-298.	1.3	2
93	Algorithms for Three Versions of the Shortest Common Superstring Problem. Lecture Notes in Computer Science, 2010, , 299-309.	1.3	4
94	Capacitated Domination Faster Than O(2 n). Lecture Notes in Computer Science, 2010, , 74-80.	1.3	8
95	Kernelization Hardness of Connectivity Problems in d-Degenerate Graphs. Lecture Notes in Computer Science, 2010, , 147-158.	1.3	9
96	An Improved FPT Algorithm and Quadratic Kernel for Pathwidth One Vertex Deletion. Lecture Notes in Computer Science, 2010, , 95-106.	1.3	6
97	Exponential-time approximation of weighted set cover. Information Processing Letters, 2009, 109, 957-961.	0.6	67
98	Faster Exact Bandwidth. Lecture Notes in Computer Science, 2008, , 101-109.	1.3	12
99	Approximation and Parameterized Complexity of Minimax Approval Voting. Journal of Artificial Intelligence Research, 0, 63, 495-513.	7.0	4