

David P Williamson

List of Publications by Year in descending order

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47
papers

4,738
citations

566801

15
h-index

329751

37
g-index

55
all docs

55
docs citations

55
times ranked

2579
citing authors

#	ARTICLE	IF	CITATIONS
1	Improved approximation algorithms for maximum cut and satisfiability problems using semidefinite programming. Journal of the ACM, 1995, 42, 1115-1145.	1.8	2,443
2	A General Approximation Technique for Constrained Forest Problems. SIAM Journal on Computing, 1995, 24, 296-317.	0.8	611
3	A note on the prize collecting traveling salesman problem. Mathematical Programming, 1993, 59, 413-420.	1.6	216
4	New $\{3\}$ -Approximation Algorithms for the Maximum Satisfiability Problem. SIAM Journal on Discrete Mathematics, 1994, 7, 656-666.	0.4	200
5	Analyzing the Held-Karp tsp bound: a monotonicity property with application. Information Processing Letters, 1990, 35, 281-285.	0.4	109
6	A primal-dual approximation algorithm for generalized steiner network problems. Combinatorica, 1995, 15, 435-454.	0.6	107
7	Improved Approximation Algorithms for Capacitated Facility Location Problems. Lecture Notes in Computer Science, 1999, , 99-113.	1.0	80
8	Improved approximation algorithms for capacitated facility location problems. Mathematical Programming, 2005, 102, 207-222.	1.6	70
9	Approximating the smallest k -edge connected spanning subgraph by LP-rounding. Networks, 2009, 53, 345-357.	1.6	30
10	A simple GAP-canceling algorithm for the generalized maximum flow problem. Mathematical Programming, 2009, 118, 47-74.	1.6	27
11	Greedy Algorithms for the Maximum Satisfiability Problem: Simple Algorithms and Inapproximability Bounds. SIAM Journal on Computing, 2017, 46, 1029-1061.	0.8	27
12	Two-Dimensional Gantt Charts and a Scheduling Algorithm of Lawler. SIAM Journal on Discrete Mathematics, 2000, 13, 281-294.	0.4	26
13	Offline and online facility leasing. Discrete Optimization, 2013, 10, 361-370.	0.6	22
14	A note on the generalized min-sum set cover problem. Operations Research Letters, 2011, 39, 433-436.	0.5	20
15	2-Matchings, the Traveling Salesman Problem, and the Subtour LP: A Proof of the Boyd-Carr Conjecture. Mathematics of Operations Research, 2014, 39, 403-417.	0.8	17
16	Approximating minimum-cost graph problems with spanning tree edges. Operations Research Letters, 1994, 16, 183-189.	0.5	16
17	Budgeted Prize-Collecting Traveling Salesman and Minimum Spanning Tree Problems. Mathematics of Operations Research, 2020, 45, 576-590.	0.8	14
18	Pricing Problems Under the Nested Logit Model with a Quality Consistency Constraint. INFORMS Journal on Computing, 2017, 29, 54-76.	1.0	12

#	ARTICLE	IF	CITATIONS
19	An Experimental Evaluation of the Best-of-Many Christofides's Algorithm for the Traveling Salesman Problem. <i>Algorithmica</i> , 2017, 78, 1109-1130.	1.0	9
20	The Online Connected Facility Location Problem. <i>Lecture Notes in Computer Science</i> , 2014, , 574-585.	1.0	8
21	An Experimental Evaluation of the Best-of-Many Christofides's Algorithm for the Traveling Salesman Problem. <i>Lecture Notes in Computer Science</i> , 2015, , 570-581.	1.0	8
22	Popular ranking. <i>Discrete Applied Mathematics</i> , 2014, 165, 312-316.	0.5	7
23	An Experimental Evaluation of Fast Approximation Algorithms for the Maximum Satisfiability Problem. <i>Lecture Notes in Computer Science</i> , 2016, , 246-261.	1.0	6
24	Greedy algorithms for the single-demand facility location problem. <i>Operations Research Letters</i> , 2017, 45, 452-455.	0.5	6
25	A Randomized $O(\log n)$ -Competitive Algorithm for the Online Connected Facility Location Problem. <i>Algorithmica</i> , 2016, 76, 1139-1157.	1.0	5
26	On the relationship between combinatorial and LP-based lower bounds for NP-hard scheduling problems. <i>Theoretical Computer Science</i> , 2006, 361, 241-256.	0.5	4
27	The Online Prize-Collecting Facility Location Problem. <i>Electronic Notes in Discrete Mathematics</i> , 2015, 50, 151-156.	0.4	4
28	On the integrality gap of the subtour LP for the 1,2-TSP. <i>Mathematical Programming</i> , 2015, 150, 131-151.	1.6	4
29	On the Integrality Gap of the Subtour LP for the 1,2-TSP. <i>Lecture Notes in Computer Science</i> , 2012, , 606-617.	1.0	3
30	Online Constrained Forest and Prize-Collecting Network Design. <i>Algorithmica</i> , 2018, 80, 3335-3364.	1.0	3
31	Simple Approximation Algorithms for Balanced MAX-2SAT. <i>Algorithmica</i> , 2018, 80, 995-1012.	1.0	2
32	A $3/2$ -approximation algorithm for some minimum-cost graph problems. <i>Mathematical Programming</i> , 2015, 150, 19-34.	1.6	1
33	Easy capacitated facility location problems, with connections to lot-sizing. <i>Operations Research Letters</i> , 2020, 48, 109-114.	0.5	1
34	Semidefinite Programming Relaxations of the Traveling Salesman Problem and Their Integrality Gaps. <i>Mathematics of Operations Research</i> , 2022, 47, 1-28.	0.8	1
35	A Dual-Fitting $\frac{3}{2}$ -Approximation Algorithm for Some Minimum-Cost Graph Problems. <i>Lecture Notes in Computer Science</i> , 2012, , 373-382.	1.0	1
36	Maximizing a Submodular Function with Viability Constraints. <i>Algorithmica</i> , 2017, 77, 152-172.	1.0	0

#	ARTICLE	IF	CITATIONS
37	Preliminaries: Shortest Path Algorithms. , 2019, , 1-22.		0
38	Maximum Flow Algorithms. , 2019, , 23-79.		0
39	Global Minimum Cut Algorithms. , 2019, , 80-115.		0
40	More Maximum Flow Algorithms. , 2019, , 116-131.		0
41	Minimum-Cost Circulation Algorithms. , 2019, , 132-187.		0
42	Generalized Flow Algorithms. , 2019, , 188-223.		0
43	Multicommodity Flow Algorithms. , 2019, , 224-252.		0
44	Electrical Flow Algorithms. , 2019, , 253-290.		0
45	Open Questions. , 2019, , 291-293.		0
46	Tight Bounds for Online Weighted Tree Augmentation. Algorithmica, 2022, 84, 304-324.	1.0	0
47	The Circlet Inequalities: A New, Circulant-Based, Facet-Defining Inequality for the TSP. Mathematics of Operations Research, 2023, 48, 393-418.	0.8	0