

R Ravi

List of Publications by Year in descending order

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168
papers

5,193
citations

147801

31
h-index

128289

60
g-index

176
all docs

176
docs citations

176
times ranked

2556
citing authors

#	ARTICLE	IF	CITATIONS
1	Scheduling and Reliable Lead-Time Quotation for Orders with Availability Intervals and Lead-Time Sensitive Revenues. <i>Management Science</i> , 2001, 47, 264-279.	4.1	364
2	A Nearly Best-Possible Approximation Algorithm for Node-Weighted Steiner Trees. <i>Journal of Algorithms</i> , 1995, 19, 104-115.	0.9	320
3	When Trees Collide: An Approximation Algorithm for the Generalized Steiner Problem on Networks. <i>SIAM Journal on Computing</i> , 1995, 24, 440-456.	1.0	292
4	A Polylogarithmic Approximation Algorithm for the Group Steiner Tree Problem. <i>Journal of Algorithms</i> , 2000, 37, 66-84.	0.9	201
5	Bicriteria Network Design Problems. <i>Journal of Algorithms</i> , 1998, 28, 142-171.	0.9	150
6	Optimal circuits for parallel multipliers. <i>IEEE Transactions on Computers</i> , 1998, 47, 273-285.	3.4	117
7	Approximation Algorithms for the Multiple Knapsack Problem with Assignment Restrictions. <i>Journal of Combinatorial Optimization</i> , 2000, 4, 171-186.	1.3	108
8	A Polynomial-Time Approximation Scheme for Minimum Routing Cost Spanning Trees. <i>SIAM Journal on Computing</i> , 2000, 29, 761-778.	1.0	103
9	Spanning Trees – Short or Small. <i>SIAM Journal on Discrete Mathematics</i> , 1996, 9, 178-200.	0.8	102
10	Approximation Algorithms for Degree-Constrained Minimum-Cost Network-Design Problems. <i>Algorithmica</i> , 2001, 31, 58-78.	1.3	101
11	Many birds with one stone. , 1993, , .		98
12	Boosted sampling. , 2004, , .		98
13	Approximating Maximum Leaf Spanning Trees in Almost Linear Time. <i>Journal of Algorithms</i> , 1998, 29, 132-141.	0.9	91
14	Min – max tree covers of graphs. <i>Operations Research Letters</i> , 2004, 32, 309-315.	0.7	90
15	Hedging Uncertainty: Approximation Algorithms for Stochastic Optimization Problems. <i>Mathematical Programming</i> , 2006, 108, 97-114.	2.4	82
16	The constrained minimum spanning tree problem. <i>Lecture Notes in Computer Science</i> , 1996, , 66-75.	1.3	81
17	Rapid rumor ramification: approximating the minimum broadcast time. , 0, , .		79
18	A Matter of Degree: Improved Approximation Algorithms for Degree-Bounded Minimum Spanning Trees. <i>SIAM Journal on Computing</i> , 2002, 31, 1783-1793.	1.0	78

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19	Approximation algorithms for the test cover problem. <i>Mathematical Programming</i> , 2003, 98, 477-491.	2.4	76
20	An approximation algorithm for minimum-cost vertex-connectivity problems. <i>Algorithmica</i> , 1997, 18, 21-43.	1.3	74
21	Approximating the Single-Sink Link-Installation Problem in Network Design. <i>SIAM Journal on Optimization</i> , 2001, 11, 595-610.	2.0	70
22	Approximation algorithms for distance constrained vehicle routing problems. <i>Networks</i> , 2012, 59, 209-214.	2.7	65
23	Mixed Integer Linear Programming for Maximum-Parsimony Phylogeny Inference. <i>IEEE/ACM Transactions on Computational Biology and Bioinformatics</i> , 2008, 5, 323-331.	3.0	50
24	When trees collide. , 1991, , .		49
25	Nonoverlapping local alignments (weighted independent sets of axis-parallel rectangles). <i>Discrete Applied Mathematics</i> , 1996, 71, 41-53.	0.9	49
26	Approximation through multicommodity flow. , 0, , .		48
27	We know who you followed last summer. , 2011, , .		48
28	An approximate max-flow min-cut relation for undirected multicommodity flow, with applications. <i>Combinatorica</i> , 1995, 15, 187-202.	1.2	44
29	Computing similarity between RNA strings. <i>Lecture Notes in Computer Science</i> , 1995, , 1-16.	1.3	44
30	Approximation Algorithms for Problems Combining Facility Location and Network Design. <i>Operations Research</i> , 2006, 54, 73-81.	1.9	43
31	Banishing bias from consensus sequences. <i>Lecture Notes in Computer Science</i> , 1997, , 247-261.	1.3	43
32	Hedging Uncertainty: Approximation Algorithms for Stochastic Optimization Problems. <i>Lecture Notes in Computer Science</i> , 2004, , 101-115.	1.3	43
33	The p-neighbor k-center problem. <i>Information Processing Letters</i> , 1998, 65, 131-134.	0.6	40
34	Approximation Algorithms for Certain Network Improvement Problems. <i>Journal of Combinatorial Optimization</i> , 1998, 2, 257-288.	1.3	40
35	A PTAS for the chance-constrained knapsack problem with random item sizes. <i>Operations Research Letters</i> , 2010, 38, 161-164.	0.7	39
36	A Constant-Factor Approximation Algorithm for the k-MST Problem. <i>Journal of Computer and System Sciences</i> , 1999, 58, 101-108.	1.2	35

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37	New approaches to multi-objective optimization. <i>Mathematical Programming</i> , 2014, 146, 525-554.	2.4	34
38	Ordering problems approximated: single-processor scheduling and interval graph completion. <i>Lecture Notes in Computer Science</i> , 1991, , 751-762.	1.3	33
39	Primal-Dual Meets Local Search: Approximating MSTs With Nonuniform Degree Bounds. <i>SIAM Journal on Computing</i> , 2005, 34, 763-773.	1.0	33
40	Approximation Algorithms for Correlated Knapsacks and Non-martingale Bandits. , 2011, , .		33
41	On approximating planar metrics by tree metrics. <i>Information Processing Letters</i> , 2001, 80, 213-219.	0.6	32
42	A near Pareto optimal auction with budget constraints. <i>Games and Economic Behavior</i> , 2012, 74, 699-708.	0.8	31
43	On 2-Coverings and 2-Packings of Laminar Families. <i>Lecture Notes in Computer Science</i> , 1999, , 510-520.	1.3	31
44	Technical Noteâ€”Approximation Algorithms for VRP with Stochastic Demands. <i>Operations Research</i> , 2012, 60, 123-127.	1.9	30
45	Approximation Algorithms for the Traveling Purchaser Problem and Its Variants in Network Design. <i>Lecture Notes in Computer Science</i> , 1999, , 29-40.	1.3	30
46	Bicriteria network design problems. <i>Lecture Notes in Computer Science</i> , 1995, , 487-498.	1.3	29
47	On Two-Stage Stochastic Minimum Spanning Trees. <i>Lecture Notes in Computer Science</i> , 2005, , 321-334.	1.3	29
48	On the Integrality Gap of a Natural Formulation of the Single-sink Buy-at-Bulk Network Design Problem. <i>Lecture Notes in Computer Science</i> , 2001, , 170-184.	1.3	29
49	An optimal algorithm to solve the all-pair shortest path problem on interval graphs. <i>Networks</i> , 1992, 22, 21-35.	2.7	28
50	How to Pay, Come What May: Approximation Algorithms for Demand-Robust Covering Problems. , 0, , .		27
51	Approximation Algorithms for a Capacitated Network Design Problem. <i>Algorithmica</i> , 2004, 38, 417-431.	1.3	26
52	LP Rounding Approximation Algorithms for Stochastic Network Design. <i>Mathematics of Operations Research</i> , 2007, 32, 345-364.	1.3	26
53	The Geometry of Online Packing Linear Programs. <i>Mathematics of Operations Research</i> , 2014, 39, 46-59.	1.3	26
54	A constant-factor approximation algorithm for the k MST problem (extended abstract). , 1996, , .		25

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55	Semi-definite relaxations for minimum bandwidth and other vertex-ordering problems. Theoretical Computer Science, 2000, 235, 25-42.	0.9	25
56	Approximation algorithms for the covering Steiner problem. Random Structures and Algorithms, 2002, 20, 465-482.	1.1	25
57	Dial a Ride from k -forest. ACM Transactions on Algorithms, 2010, 6, 1-21.	1.0	25
58	Approximation Algorithms for Optimal Decision Trees and Adaptive TSP Problems. Mathematics of Operations Research, 2017, 42, 876-896.	1.3	25
59	Approximating k -cuts using network strength as a Lagrangean relaxation. European Journal of Operational Research, 2008, 186, 77-90.	5.7	24
60	Primal-dual meets local search. , 2003, , .		22
61	An Edge in Time Saves Nine: LP Rounding Approximation Algorithms for Stochastic Network Design. , 0, , .		22
62	Approximation algorithms for finding low-degree subgraphs. Networks, 2004, 44, 203-215.	2.7	21
63	Min-Max payoffs in a two-player location game. Operations Research Letters, 2006, 34, 499-507.	0.7	21
64	Semi-definite relaxations for minimum bandwidth and other vertex-ordering problems. , 1998, , .		20
65	A matter of degree. , 2000, , .		20
66	Algorithms for Efficient Near-Perfect Phylogenetic Tree Reconstruction in Theory and Practice. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2007, 4, 561-571.	3.0	20
67	Delegate and Conquer: An LP-Based Approximation Algorithm for Minimum Degree MSTs. Lecture Notes in Computer Science, 2006, , 169-180.	1.3	20
68	Iterative Rounding for Multi-Objective Optimization Problems. Lecture Notes in Computer Science, 2009, , 95-106.	1.3	20
69	On the Approximability of the Minimum Test Collection Problem. Lecture Notes in Computer Science, 2001, , 158-169.	1.3	19
70	On the Crossing Spanning Tree Problem. Lecture Notes in Computer Science, 2004, , 51-60.	1.3	19
71	Improving Minimum Cost Spanning Trees by Upgrading Nodes. Journal of Algorithms, 1999, 33, 92-111.	0.9	18
72	Running Errands in Time: Approximation Algorithms for Stochastic Orienteering. Mathematics of Operations Research, 2015, 40, 56-79.	1.3	18

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73	A New Bound for the 2-Edge Connected Subgraph Problem. Lecture Notes in Computer Science, 1998, , 112-125.	1.3	17
74	Line-of-Sight Networks. Combinatorics Probability and Computing, 2009, 18, 145-163.	1.3	17
75	Approximation Algorithms for Optimal Decision Trees and Adaptive TSP Problems. Lecture Notes in Computer Science, 2010, , 690-701.	1.3	17
76	Simpler analysis of LP extreme points for traveling salesman and survivable network design problems. Operations Research Letters, 2010, 38, 156-160.	0.7	16
77	The Directed Orienteering Problem. Algorithmica, 2011, 60, 1017-1030.	1.3	16
78	An FPTAS for minimizing the product of two non-negative linear cost functions. Mathematical Programming, 2011, 126, 401-405.	2.4	16
79	The Beneficial Effects of Ad Blockers. Management Science, 2021, 67, 2096-2125.	4.1	16
80	Poly-logarithmic Approximation Algorithms for Directed Vehicle Routing Problems. Lecture Notes in Computer Science, 2007, , 257-270.	1.3	16
81	The Directed Minimum Latency Problem. Lecture Notes in Computer Science, 2008, , 193-206.	1.3	16
82	Improving spanning trees by upgrading nodes. Theoretical Computer Science, 1999, 221, 139-155.	0.9	15
83	Integrated optimization of customer and supplier logistics at Robert Bosch LLC. European Journal of Operational Research, 2010, 207, 456-464.	5.7	15
84	Sampling and Cost-Sharing: Approximation Algorithms for Stochastic Optimization Problems. SIAM Journal on Computing, 2011, 40, 1361-1401.	1.0	15
85	Efficiently Finding the Most Parsimonious Phylogenetic Tree Via Linear Programming. , 2007, , 37-48.		15
86	Finding effective support-tree preconditioners. , 2005, , .		14
87	An improved approximation algorithm for requirement cut. Operations Research Letters, 2010, 38, 322-325.	0.7	14
88	Fixed Parameter Tractability of Binary Near-Perfect Phylogenetic Tree Reconstruction. Lecture Notes in Computer Science, 2006, , 667-678.	1.3	14
89	GESTALT: Genomic Steiner Alignments. Lecture Notes in Computer Science, 1999, , 101-114.	1.3	14
90	Direct maximum parsimony phylogeny reconstruction from genotype data. BMC Bioinformatics, 2007, 8, 472.	2.6	13

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91	Solving the Capacitated Local Access Network Design Problem. <i>INFORMS Journal on Computing</i> , 2008, 20, 243-254.	1.7	13
92	First-Price Auctions in Online Display Advertising. <i>Journal of Marketing Research</i> , 2021, 58, 888-907.	4.8	13
93	Robust and MaxMin Optimization under Matroid and Knapsack Uncertainty Sets. <i>ACM Transactions on Algorithms</i> , 2016, 12, 1-21.	1.0	13
94	Design strategies for optimal multiplier circuits. , 0, , .		12
95	Covering Graphs Using Trees and Stars. <i>Lecture Notes in Computer Science</i> , 2003, , 24-35.	1.3	12
96	An FPTAS for minimizing a class of low-rank quasi-concave functions over a convex set. <i>Operations Research Letters</i> , 2013, 41, 191-196.	0.7	11
97	Thresholded covering algorithms for robust and maxâ€“min optimization. <i>Mathematical Programming</i> , 2014, 146, 583-615.	2.4	11
98	Approximation through local optimality: Designing networks with small degree. <i>Lecture Notes in Computer Science</i> , 1992, , 279-290.	1.3	11
99	Generalized vertex covering in interval graphs. <i>Discrete Applied Mathematics</i> , 1992, 39, 87-93.	0.9	10
100	A primal-dual approximation algorithm for the Steiner forest problem. <i>Information Processing Letters</i> , 1994, 50, 185-189.	0.6	10
101	Multiple facility location on a network with linear reliability order of edges. <i>Journal of Combinatorial Optimization</i> , 2017, 34, 931-955.	1.3	10
102	Minimum Makespan Multi-vehicle Dial-a-Ride. <i>Lecture Notes in Computer Science</i> , 2009, , 540-552.	1.3	10
103	Approximation algorithms for multiple sequence alignment under a fixed evolutionary tree. <i>Discrete Applied Mathematics</i> , 1998, 88, 355-366.	0.9	9
104	Improved approximations for two-stage min-cut and shortest path problems under uncertainty. <i>Mathematical Programming</i> , 2015, 149, 167-194.	2.4	9
105	Simple Reconstruction of Binary Near-Perfect Phylogenetic Trees. <i>Lecture Notes in Computer Science</i> , 2006, , 799-806.	1.3	9
106	Geometry of Online Packing Linear Programs. <i>Lecture Notes in Computer Science</i> , 2012, , 701-713.	1.3	9
107	OPTIMAL IMPERFECT PHYLOGENY RECONSTRUCTION AND HAPLOTYPING (IPPH). , 2006, , .		9
108	Reconstructing edge-disjoint paths. <i>Operations Research Letters</i> , 2003, 31, 273-276.	0.7	8

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109	Online and Stochastic Survivable Network Design. SIAM Journal on Computing, 2012, 41, 1649-1672.	1.0	8
110	Iterative Rounding Approximation Algorithms for Degree-Bounded Node-Connectivity Network Design. , 2012, , .		8
111	Iterative Rounding Approximation Algorithms for Degree-Bounded Node-Connectivity Network Design. SIAM Journal on Computing, 2015, 44, 1202-1229.	1.0	8
112	Expertise in Online Markets. Management Science, 2017, 63, 3895-3910.	4.1	8
113	Minimum Vehicle Routing with a Common Deadline. Lecture Notes in Computer Science, 2006, , 212-223.	1.3	8
114	Approximation algorithms for multiple sequence alignment under a fixed evolutionary tree. Lecture Notes in Computer Science, 1995, , 330-339.	1.3	8
115	Dial a Ride from k-Forest. , 2007, , 241-252.		8
116	Thresholded Covering Algorithms for Robust and Max-min Optimization. Lecture Notes in Computer Science, 2010, , 262-274.	1.3	8
117	Effective Online Order Acceptance Policies for Omnichannel Fulfillment. Manufacturing and Service Operations Management, 2022, 24, 1650-1663.	3.7	8
118	Online and stochastic survivable network design. , 2009, , .		7
119	Generalized Buneman Pruning for Inferring the Most Parsimonious Multi-State Phylogeny. Journal of Computational Biology, 2011, 18, 445-457.	1.6	7
120	Capacitated Vehicle Routing with Nonuniform Speeds. Mathematics of Operations Research, 2016, 41, 318-331.	1.3	7
121	Matching Based Augmentations for Approximating Connectivity Problems. Lecture Notes in Computer Science, 2006, , 13-24.	1.3	7
122	A linear-time algorithm to compute a MAD tree of an interval graph. Information Processing Letters, 2004, 89, 255-259.	0.6	6
123	Shorter tours and longer detours: uniform covers and a bit beyond. Mathematical Programming, 2021, 185, 245-273.	2.4	6
124	Nonoverlapping local alignments (weighted independent sets of axis parallel rectangles). Lecture Notes in Computer Science, 1995, , 506-517.	1.3	6
125	Approximation Algorithms for Multicommodity Facility Location Problems. SIAM Journal on Discrete Mathematics, 2010, 24, 538-551.	0.8	5
126	A Consensus Tree Approach for Reconstructing Human Evolutionary History and Detecting Population Substructure. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2011, 8, 918-928.	3.0	5

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127	Complexity of transmission network expansion planning. Energy Systems, 2014, 5, 179-207.	3.0	5
128	Minimum Makespan Multi-Vehicle Dial-a-Ride. ACM Transactions on Algorithms, 2015, 11, 1-29.	1.0	5
129	Improving spanning trees by upgrading nodes. Lecture Notes in Computer Science, 1997, , 281-291.	1.3	5
130	Tree Embeddings for Two-Edge-Connected Network Design. , 2010, , .		4
131	Approximation Algorithms for Requirement Cut on Graphs. Algorithmica, 2010, 56, 198-213.	1.3	4
132	Approximation Algorithms for Minimizing Average Distortion. Lecture Notes in Computer Science, 2004, , 234-245.	1.3	4
133	Tractable Cases of Facility Location on a Network with a Linear Reliability Order of Links. Lecture Notes in Computer Science, 2009, , 275-276.	1.3	4
134	Capacitated Vehicle Routing with Non-uniform Speeds. Lecture Notes in Computer Science, 2011, , 235-247.	1.3	4
135	Approximation Algorithms for Minimizing Average Distortion. Theory of Computing Systems, 2006, 39, 93-111.	1.1	3
136	Sending Secrets Swiftly: Approximation Algorithms for Generalized Multicast Problems. Lecture Notes in Computer Science, 2014, , 568-607.	1.3	3
137	Efficient cost-sharing mechanisms for prize-collecting problems. Mathematical Programming, 2015, 152, 147-188.	2.4	3
138	Approximation Algorithms for Replenishment Problems with Fixed Turnover Times. Lecture Notes in Computer Science, 2018, , 217-230.	1.3	3
139	Combinatorial Heuristics for Inventory Routing Problems. INFORMS Journal on Computing, 2022, 34, 370-384.	1.7	3
140	Optimal imperfect phylogeny reconstruction and haplotyping (IPPH). Computational Systems Bioinformatics / Life Sciences Society Computational Systems Bioinformatics Conference, 2006, , 199-210.	0.4	3
141	Parallelizing elimination orders with linear fill. , 0, , .		2
142	The Approximability of Multiple Facility Location on Directed Networks with Random Arc Failures. Algorithmica, 2020, 82, 2474-2501.	1.3	2
143	Local improvement algorithms for a path packing problem: A performance analysis based on linear programming. Operations Research Letters, 2021, 49, 62-68.	0.7	2
144	Bayesian Optimal No-Deficit Mechanism Design. Lecture Notes in Computer Science, 2006, , 136-148.	1.3	2

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145	Short Tours through Large Linear Forests. Lecture Notes in Computer Science, 2014, , 273-284.	1.3	2
146	Plane Gossip: Approximating Rumor Spread in Planar Graphs. Lecture Notes in Computer Science, 2018, , 611-624.	1.3	2
147	Profit guaranteeing mechanisms for multicast networks. , 2003, , .		1
148	Worst-case payoffs of a location game. , 2004, , .		1
149	Pricing Tree Access Networks with Connected Backbones. Lecture Notes in Computer Science, 2007, , 498-509.	1.3	1
150	Randomized Approximation Algorithms for Query Optimization Problems on Two Processors. Lecture Notes in Computer Science, 2002, , 649-661.	1.3	1
151	A Consensus Tree Approach for Reconstructing Human Evolutionary History and Detecting Population Substructure. Lecture Notes in Computer Science, 2010, , 167-178.	1.3	1
152	Generalized Buneman Pruning for Inferring the Most Parsimonious Multi-state Phylogeny. Lecture Notes in Computer Science, 2010, , 369-383.	1.3	1
153	An Optimization-Based Sampling Scheme for Phylogenetic Trees. Lecture Notes in Computer Science, 2011, , 252-266.	1.3	1
154	Approximation Algorithms for Online Weighted Rank Function Maximization under Matroid Constraints. Lecture Notes in Computer Science, 2012, , 145-156.	1.3	1
155	Graph-TSP from Steiner Cycles. Lecture Notes in Computer Science, 2014, , 312-323.	1.3	1
156	Approximation Algorithms for Replenishment Problems with Fixed Turnover Times. Algorithmica, 2022, 84, 2597-2621.	1.3	1
157	A fast approximation algorithm for maximum-leaf spanning tree. , 0, , .		0
158	An Optimization-Based Sampling Scheme for Phylogenetic Trees. Journal of Computational Biology, 2011, 18, 1599-1609.	1.6	0
159	Coalescent-based method for learning parameters of admixture events from large-scale genetic variation data. , 2012, , .		0
160	Approximating maxâ€“min weighted -joins. Operations Research Letters, 2013, 41, 321-324.	0.7	0
161	Coalescent-Based Method for Learning Parameters of Admixture Events from Large-Scale Genetic Variation Data. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2013, 10, 1137-1149.	3.0	0
162	Algorithms for automatic ranking of participants and tasks in an anonymized contest. Theoretical Computer Science, 2019, 789, 64-76.	0.9	0

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163	A simple proof of the Moore-Hodgson Algorithm for minimizing the number of late jobs. Operations Research Letters, 2021, 49, 842-843.	0.7	0
164	Approximation Algorithms for Degree-Constrained Minimum-Cost Network-Design Problems. , 2009, , 241-266.		0
165	Balls and Funnels: Energy Efficient Group-to-Group Anycasts. Lecture Notes in Computer Science, 2016, , 235-246.	1.3	0
166	Two-level hub Steiner trees. Information Processing Letters, 2022, 174, 106209.	0.6	0
167	Approximation algorithm for the 2-stage stochastic matroid base problem. Operations Research Letters, 2022, 50, 129-132.	0.7	0
168	Vertex downgrading to minimize connectivity. Mathematical Programming, 0, , .	2.4	0