Zhao Zhang

List of Publications by Year
in descending order

144 papers	1,646 citations	331259 21 h-index

433756   31   g-index

147 all docs	147 docs citations	147 times ranked	857 citing authors

#	ARTICLE	IF	CITATIONS
1	Capitalize Your Data: Optimal Selling Mechanisms for IoT Data Exchange. IEEE Transactions on Mobile Computing, 2023, 22, 1988-2000.	3.9	5
2	Optimizing Polynomial-Time Solutions to a Network Weighted Vertex Cover Game. IEEE/CAA Journal of Automatica Sinica, 2023, 10, 512-523.	8.5	1
3	Computation and algorithm for the minimum k-edge-connectivity of graphs. Journal of Combinatorial Optimization, 2022, 44, 1741-1752.	0.8	1
4	A primal-dual algorithm for the minimum power partial cover problem. Journal of Combinatorial Optimization, 2022, 44, 1913-1923.	0.8	12
5	The price of fairness for a two-agent scheduling game minimizing total completion time. Journal of Combinatorial Optimization, 2022, 44, 2104-2122.	0.8	6
6	Toward Fairness-Aware Time-Sensitive Asynchronous Federated Learning for Critical Energy Infrastructure. IEEE Transactions on Industrial Informatics, 2022, 18, 3462-3472.	7.2	10
7	Constant Approximation for the Lifetime Scheduling Problem of p-Percent Coverage. INFORMS Journal on Computing, 2022, 34, 2675-2685.	1.0	0
8	Approximation algorithm for prize-collecting sweep cover with base stations. Theoretical Computer Science, 2022, 929, 1-10.	0.5	1
9	Extortion and Cooperation in Rating Protocol Design for Competitive Crowdsourcing. IEEE Transactions on Computational Social Systems, 2021, 8, 246-259.	3.2	8
10	Approximation algorithms for the dynamic k-level facility location problems. Theoretical Computer Science, 2021, 853, 43-56.	0.5	4
11	Minimum power partial multi-cover on a line. Theoretical Computer Science, 2021, 864, 118-128.	0.5	12
12	Approximation algorithm for minimum power partial multi-coverage in wireless sensor networks. Journal of Global Optimization, 2021, 80, 661.	1.1	14
13	Parallel approximation for partial set cover. Applied Mathematics and Computation, 2021, 408, 126358.	1.4	1
14	Parallel Algorithm forÂMinimum Partial Dominating Set inÂUnit Disk Graph. Lecture Notes in Computer Science, 2021, , 527-537.	1.0	0
15	Reliability Analysis of IoT Networks with Community Structures. IEEE Transactions on Network Science and Engineering, 2020, 7, 304-315.	4.1	11
16	A bicriteria algorithm for the minimum submodular cost partial set multi-cover problem. Theoretical Computer Science, 2020, 803, 1-9.	0.5	7
17	Algorithm for Online 3-Path Vertex Cover. Theory of Computing Systems, 2020, 64, 327-338.	0.7	2
18	Data mule scheduling on a path with handling time and time span constraints. Optimization Letters, 2020, 14, 1701-1710.	0.9	5

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19	Approximation algorithms for capacitated partial inverse maximum spanning tree problem. Journal of Global Optimization, 2020, 77, 319-340.	1.1	6
20	Approximation algorithm for a generalized Roman domination problem in unit ball graphs. Journal of Combinatorial Optimization, 2020, 39, 138-148.	0.8	3
21	A primal-dual algorithm for the minimum partial set multi-cover problem. Journal of Combinatorial Optimization, 2020, 39, 725-746.	0.8	17
22	Breaking the rmax Barrier: Enhanced Approximation Algorithms for Partial Set Multicover Problem. INFORMS Journal on Computing, 2020, , .	1.0	2
23	Optimal Coverage in Wireless Sensor Networks. Springer Optimization and Its Applications, 2020, , .	0.6	11
24	A game theoretic approach for minimal connected dominating set. Theoretical Computer Science, 2020, 836, 29-36.	0.5	2
25	Approximation algorithm for minimum connected 3-path vertex cover. Discrete Applied Mathematics, 2020, 287, 77-84.	0.5	2
26	Approximation algorithm for minimum weight connected-k-subgraph cover. Theoretical Computer Science, 2020, 838, 160-167.	0.5	3
27	Approximation algorithm for (connected) bounded-degree deletion problem on unit disk graphs. Theoretical Computer Science, 2020, 836, 59-64.	0.5	0
28	Online Rating Protocol Using Endogenous and Incremental Learning Design for Mobile Crowdsensing. IEEE Transactions on Vehicular Technology, 2020, 69, 3190-3201.	3.9	5
29	Energy-Harvesting Sensors. Springer Optimization and Its Applications, 2020, , 245-255.	0.6	0
30	Partial Coverage. Springer Optimization and Its Applications, 2020, , 193-202.	0.6	0
31	Heterogeneous Sensors. Springer Optimization and Its Applications, 2020, , 135-151.	0.6	0
32	k-Coverage. Springer Optimization and Its Applications, 2020, , 117-133.	0.6	0
33	Barrier Coverage. Springer Optimization and Its Applications, 2020, , 159-181.	0.6	2
34	Sweep-Coverage. Springer Optimization and Its Applications, 2020, , 183-192.	0.6	0
35	Multi-Level Two-Sided Rating Protocol Design for Service Exchange Contest Dilemma in Crowdsensing. IEEE Access, 2019, 7, 78391-78405.	2.6	3
36	Approximation algorithm for the partial set multi-cover problem. Journal of Global Optimization, 2019, 75, 1133-1146.	1.1	8

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37	Zero-Determinant Strategies in Winner Takes All Game. , 2019, , .		1
38	Incentive Mechanism for Macrotasking Crowdsourcing: A Zero-Determinant Strategy Approach. IEEE Internet of Things Journal, 2019, 6, 8589-8601.	5.5	16
39	Online hole healing for sensor coverage. Journal of Global Optimization, 2019, 75, 1111-1131.	1.1	4
40	Nonsubmodular Optimization. Springer Optimization and Its Applications, 2019, , 141-152.	0.6	0
41	What can AI learn from bionic algorithms?. Physics of Life Reviews, 2019, 29, 41-43.	1.5	3
42	Set Function Optimization. Journal of the Operations Research Society of China, 2019, 7, 183-193.	0.9	24
43	Approximation algorithms for distance constraint sweep coverage with base stations. Journal of Combinatorial Optimization, 2019, 37, 1111-1125.	0.8	18
44	Approximation algorithms for minimum weight connected 3-path vertex cover. Applied Mathematics and Computation, 2019, 347, 723-733.	1.4	11
45	Approximation Algorithms for the Minimum Power Partial Cover Problem. Lecture Notes in Computer Science, 2019, , 179-191.	1.0	0
46	Improved Approximation Algorithm forÂMinimum Weight k-Subgraph CoverÂProblem. Lecture Notes in Computer Science, 2019, , 352-361.	1.0	0
47	Solving the degree-concentrated fault-tolerant spanning subgraph problem by DC programming. Mathematical Programming, 2018, 169, 255-275.	1.6	10
48	What network topology can tell in election prediction. Discrete Mathematics, Algorithms and Applications, 2018, 10, 1850027.	0.4	1
49	Supporting user authorization queries in RBAC systems by role–permission reassignment. Future Generation Computer Systems, 2018, 88, 707-717.	4.9	9
50	Breaking the O(ln n) Barrier: An Enhanced Approximation Algorithm for Fault-Tolerant Minimum Weight Connected Dominating Set. INFORMS Journal on Computing, 2018, 30, 225-235.	1.0	3
51	Computing Minimum k-Connected m-Fold Dominating Set in General Graphs. INFORMS Journal on Computing, 2018, 30, 217-224.	1.0	9
52	Performability Analysis of Large-Scale Multi-State Computing Systems. IEEE Transactions on Computers, 2018, 67, 59-72.	2.4	9
53	Primal dual based algorithm for degree-balanced spanning tree problem. Applied Mathematics and Computation, 2018, 316, 167-173.	1.4	2
54	Partial inverse maximum spanning tree in which weight can only be decreased under $$l_p$$ l p -norm. Journal of Global Optimization, 2018, 70, 677-685.	1.1	11

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55	Primal Dual Algorithm for Partial Set Multi-cover. Lecture Notes in Computer Science, 2018, , 372-385.	1.0	3
56	Breach-Free Sleep-Wakeup Scheduling for Barrier Coverage With Heterogeneous Wireless Sensors. IEEE/ACM Transactions on Networking, 2018, 26, 2404-2413.	2.6	21
57	Game-Theoretic Design of Optimal Two-Sided Rating Protocols for Service Exchange Dilemma in Crowdsourcing. IEEE Transactions on Information Forensics and Security, 2018, 13, 2801-2815.	4.5	27
58	A simpler PTAS for connected k-path vertex cover in homogeneous wireless sensor network. Journal of Combinatorial Optimization, 2018, 36, 35-43.	0.8	8
59	A Bicriteria Approximation Algorithm for Minimum Submodular Cost Partial Multi-Cover Problem. Lecture Notes in Computer Science, 2018, , 62-73.	1.0	1
60	Approximation algorithm for partial positive influence problem in social network. Journal of Combinatorial Optimization, 2017, 33, 791-802.	0.8	27
61	A PTAS for minimum weighted connected vertex cover $$P_3$$ P 3 problem in 3-dimensional wireless sensor networks. Journal of Combinatorial Optimization, 2017, 33, 106-122.	0.8	15
62	A novel approach for detecting multiple rumor sources in networks with partial observations. Journal of Combinatorial Optimization, 2017, 33, 132-146.	0.8	18
63	Solution of Bharathiâ€"Kempeâ€"Salek conjecture for influence maximization on arborescence. Journal of Combinatorial Optimization, 2017, 33, 803-808.	0.8	17
64	PTAS for minimum k-path vertex cover in ball graph. Information Processing Letters, 2017, 119, 9-13.	0.4	13
65	A simple approximation algorithm for minimum weight partial connected set cover. Journal of Combinatorial Optimization, 2017, 34, 956-963.	0.8	3
66	Fault-Tolerant Virtual Backbone in Heterogeneous Wireless Sensor Network. IEEE/ACM Transactions on Networking, 2017, 25, 3487-3499.	2.6	18
67	iGreen: green scheduling for peak demand minimization. Journal of Global Optimization, 2017, 69, 45-67.	1.1	9
68	Local ratio method on partial set multi-cover. Journal of Combinatorial Optimization, 2017, 34, 302-313.	0.8	23
69	Approximation Algorithm for Minimum Weight Fault-Tolerant Virtual Backbone in Unit Disk Graphs. IEEE/ACM Transactions on Networking, 2017, 25, 925-933.	2.6	30
70	Viral marketing with positive influence. , 2017, , .		8
71	A Simpler Method to Obtain a PTAS for Connected k-Path Vertex Cover in Unit Disk Graph. Lecture Notes in Computer Science, 2017, , 584-592.	1.0	0
72	A greedy algorithm for the minimum $$2$$ 2 -connected $$m$$ m -fold dominating set problem. Journal of Combinatorial Optimization, 2016, 31, 136-151.	0.8	27

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73	Minimum cost seed set for competitive social influence. , 2016, , .		32
74	Approximation algorithms for minimum (weight) connected <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si17.gif" display="inline" overflow="scroll"><mml:mi>k</mml:mi></mml:math>-path vertex cover. Discrete Applied Mathematics, 2016, 205, 101-108.	0.5	18
75	Algorithms for the partial inverse matroid problem in which weights can only be increased. Journal of Global Optimization, 2016, 65, 801-811.	1.1	11
76	Performance-guaranteed approximation algorithm for fault-tolerant connected dominating set in wireless networks. , 2016, , .		15
77	Restricted connectivity of total digraph. Discrete Mathematics, Algorithms and Applications, 2016, 08, 1650022.	0.4	0
78	Editorial for Special Issue: COCOA2014. Journal of Combinatorial Optimization, 2016, 32, 1196-1196.	0.8	0
79	Approximation for minimum strongly connected dominating and absorbing set with routing-cost constraint in disk digraphs. Optimization Letters, 2016, 10, 1393-1401.	0.9	3
80	Algorithm for constraint partial inverse matroid problem with weight increase forbidden. Theoretical Computer Science, 2016, 640, 119-124.	0.5	13
81	An approximation algorithm for maximum weight budgeted connected set cover. Journal of Combinatorial Optimization, 2016, 31, 1505-1517.	0.8	6
82	Approximation algorithms for minimum weight partial connected set cover problem. Journal of Combinatorial Optimization, 2016, 31, 696-712.	0.8	3
83	The 0–1 inverse maximum independent set problem on forests and unicyclic graphs. Discrete Mathematics, Algorithms and Applications, 2016, 08, 1650019.	0.4	1
84	Approximating Maximum Lifetime k -Coverage Through Minimizing Weighted k -Cover in Homogeneous Wireless Sensor Networks. IEEE/ACM Transactions on Networking, 2016, 24, 3620-3633.	2.6	37
85	Reliability Evaluation of Network Systems with Dependent Propagated Failures Using Decision Diagrams. IEEE Transactions on Dependable and Secure Computing, 2016, 13, 672-683.	3.7	32
86	Approximation algorithm for the balanced 2-connected k-partition problem. Theoretical Computer Science, 2016, 609, 627-638.	0.5	3
87	Approximation algorithm for minimum weight fault-tolerant virtual backbone in homogeneous wireless sensor network. , 2015, , .		0
88	A PTAS for the minimum weight connected vertex cover P3 problem on unit disk graphs. Theoretical Computer Science, 2015, 571, 58-66.	0.5	10
89	Degree sequence realizations with given packing and covering of spanning trees. Discrete Applied Mathematics, 2015, 185, 113-118.	0.5	1
90	Fault-tolerant coverage with maximum lifetime in wireless sensor networks. , 2015, , .		11

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91	A greedy algorithm for the fault-tolerant connected dominating set in a general graph. Journal of Combinatorial Optimization, 2014, 28, 310-319.	0.8	32
92	Spanning 3-connected index of graphs. Journal of Combinatorial Optimization, 2014, 27, 199-208.	0.8	5
93	The Size of Maximally Irregular Graphs and Maximally Irregular Triangle-Free Graphs. Graphs and Combinatorics, 2014, 30, 699-705.	0.2	18
94	Minimum vertex cover in ball graphs through local search. Journal of Global Optimization, 2014, 59, 663-671.	1.1	4
95	Approximation algorithm for the minimum weight connected k -subgraph cover problem. Theoretical Computer Science, 2014, 535, 54-58.	0.5	12
96	On strongly<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si11.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi mathvariant="double-struck">Z</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn><mml:mi>s</mml:mi><mml:mo>+</mml:m graphs. Discrete Applied Mathematics, 2014, 174, 73-80.	0.5	12
97	Approximation Algorithm for the Minimum Connected $$k$$ -Path Vertex Cover Problem. Lecture Notes in Computer Science, 2014, , 764-771.	1.0	0
98	Max-min weight balanced connected partition. Journal of Global Optimization, 2013, 57, 1263-1275.	1.1	4
99	Constant-approximation for optimal data aggregation with physical interference. Journal of Global Optimization, 2013, 56, 1653-1666.	1.1	8
100	A kind of conditional connectivity of Cayley graphs generated by unicyclic graphs. Information Sciences, 2013, 243, 86-94.	4.0	34
101	On Construction of Quality Fault-Tolerant Virtual Backbone in Wireless Networks. IEEE/ACM Transactions on Networking, 2013, 21, 1499-1510.	2.6	37
102	Partition in High Dimensional Spaces. , 2013, , 2585-2624.		1
103	A NEW PROOF FOR ZASSENHAUSâ€"GROEMERâ€"OLER INEQUALITY. Discrete Mathematics, Algorithms and Applications, 2012, 04, 1250014.	0.4	16
104	On cyclic vertex-connectivity of Cartesian product digraphs. Journal of Combinatorial Optimization, 2012, 24, 379-388.	0.8	10
105	Polynomial time approximation scheme for t-latency bounded information propagation problem inÂwirelessÂnetworks. Journal of Combinatorial Optimization, 2012, 23, 451-461.	0.8	4
106	Algorithms for the minimum weight k-fold (connected) dominating set problem. Journal of Combinatorial Optimization, 2012, 23, 528-540.	0.8	2
107	Radar placement along banks of river. Journal of Global Optimization, 2012, 52, 729-741.	1.1	6
108	Edge fault tolerance of graphs with respect to super edge connectivity. Discrete Applied Mathematics, 2012, 160, 579-587.	0.5	18

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109	Super cyclically edge connected transitive graphs. Journal of Combinatorial Optimization, 2011, 22, 549-562.	0.8	14
110	PTAS for minimum weighted connected vertex cover problem with c-local condition in unit disk graphs. Journal of Combinatorial Optimization, 2011, 22, 663-673.	0.8	5
111	On minimum submodular cover with submodular cost. Journal of Global Optimization, 2011, 50, 229-234.	1.1	24
112	Edge neighbor connectivity of Cartesian product graph $G \times K$. Applied Mathematics and Computation, 2011, 217, 5508-5511.	1.4	6
113	A kind of conditional vertex connectivity of Cayley graphs generated by 2-trees. Information Sciences, 2011, 181, 4300-4308.	4.0	34
114	CYCLIC CONNECTIVITY OF STAR GRAPH. Discrete Mathematics, Algorithms and Applications, 2011, 03, 433-442.	0.4	4
115	Two algorithms for minimum 2-connected r-hop dominating set. Information Processing Letters, 2010, 110, 986-991.	0.4	13
116	A PTAS for minimum d-hop connected dominating set in growth-bounded graphs. Optimization Letters, 2010, 4, 321-333.	0.9	16
117	Sufficient conditions for a graph to be λ_k-optimal with given girth and diameter. Networks, 2010, 55, 119-124.	1.6	2
118	A kind of conditional fault tolerance of alternating group graphs. Information Processing Letters, 2010, 110, 998-1002.	0.4	44
119	Cyclic arc-connectivity in a Cartesian product digraph. Applied Mathematics Letters, 2010, 23, 796-800.	1.5	9
120	The existence and upper bound for two types of restricted connectivity. Discrete Applied Mathematics, 2010, 158, 516-521.	0.5	3
121	A Better Approximation Algorithm for Computing Connected Dominating Sets in Unit Ball Graphs. IEEE Transactions on Mobile Computing, 2010, 9, 1108-1118.	3.9	53
122	FAST INFORMATION PROPAGATION IN SOCIAL NETWORKS. Discrete Mathematics, Algorithms and Applications, 2010, 02, 125-141.	0.4	12
123	A New Constant Factor Approximation for Computing 3-Connected m-Dominating Sets in Homogeneous Wireless Networks. , 2010, , .		39
124	TWO ALGORITHMS FOR CONNECTED r-HOP k-DOMINATING SET. Discrete Mathematics, Algorithms and Applications, 2009, 01, 485-498.	0.4	26
125	Semi-hyper-connected vertex transitive graphs. Discrete Mathematics, 2009, 309, 899-907.	0.4	1
126	A better constant-factor approximation for weighted dominating set in unit disk graph. Journal of Combinatorial Optimization, 2009, 18, 179-194.	0.8	72

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127	Algorithms for connected set cover problem and fault-tolerant connected set cover problem. Theoretical Computer Science, 2009, 410, 812-817.	0.5	29
128	PTAS for connected vertex cover in unit disk graphs. Theoretical Computer Science, 2009, 410, 5398-5402.	0.5	8
129	A kind of conditional vertex connectivity of star graphs. Applied Mathematics Letters, 2009, 22, 264-267.	1.5	90
130	Super-connected arc-transitive digraphs. Discrete Applied Mathematics, 2009, 157, 653-658.	0.5	5
131	A PTAS for minimum connected dominating set in 3-dimensional Wireless sensor networks. Journal of Global Optimization, 2009, 45, 451-458.	1.1	46
132	Path-Factors in the Square of a Tree. Graphs and Combinatorics, 2008, 24, 107-111.	0.2	6
133	Super-connected edge transitive graphs. Discrete Applied Mathematics, 2008, 156, 1948-1953.	0.5	5
134	Optimal Placements in Ring Network for Data Replicas in Distributed Database with Majority Voting Protocol. , 2008, , .		0
135	Nowhere-zero flows in tensor product of graphs. Journal of Graph Theory, 2007, 54, 284-292.	0.5	8
136	Super-Connectivity and Hyper-Connectivity of Vertex Transitive Bipartite Graphs. Graphs and Combinatorics, 2007, 23, 309-314.	0.2	7
137	On optimality<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	0.5	13
138	A Characterization of Graphs without Even Factors. Graphs and Combinatorics, 2006, 22, 497-502.	0.2	0
139	Semi-hyper-connected edge transitive graphs. Discrete Mathematics, 2006, 306, 705-710.	0.4	3
140	A proof of an inequality concerning k-restricted edge connectivity. Discrete Mathematics, 2005, 304, 128-134.	0.4	59
141	A distributed algorithm for a set cover game. Discrete Mathematics, Algorithms and Applications, 0, , 2150127.	0.4	0
142	Approximation algorithm for minimum partial multi-cover under a geometric setting. Optimization Letters, 0, , 1.	0.9	1
143	A Computational Approach to Optimal Control Problems with Almost Smooth Controls. Asia-Pacific Journal of Operational Research, 0, , 2140034.	0.9	0
144	Nearly tight approximation algorithm for (connected) Roman dominating set. Optimization Letters, 0, , 1.	0.9	1