J Cole Smith

List of Publications by Year
in descending order

100 papers	2,494 citations	236912 25 h-index	233409 45 g-index
109 all docs	109 docs citations	109 times ranked	1605 citing authors

#	Article	IF	Citations
1	A Multiple-Criterion Model for Machine Scheduling. Journal of Scheduling, 2003, 6, 7-16.	1.9	303
2	Improving Discrete Model Representations via Symmetry Considerations. Management Science, 2001, 47, 1396-1407.	4.1	178
3	Algorithms for discrete and continuous multicommodity flow network interdiction problems. IIE Transactions, 2007, 39, 15-26.	2.1	178
4	A survey of network interdiction models and algorithms. European Journal of Operational Research, 2020, 283, 797-811.	5.7	109
5	Exact interdiction models and algorithms for disconnecting networks via node deletions. Discrete Optimization, 2012, 9, 172-188.	0.9	87
6	A survey of optimization algorithms for wireless sensor network lifetime maximization. Computers and Industrial Engineering, 2016, 101, 145-166.	6.3	84
7	Distributed Algorithm for Lifetime Maximization in a Delay-Tolerant Wireless Sensor Network with a Mobile Sink. IEEE Transactions on Mobile Computing, 2013, 12, 1920-1930.	5.8	82
8	Polynomial–time algorithms for solving a class of critical node problems on trees and series–parallel graphs. Networks, 2012, 60, 103-119.	2.7	80
9	A Value-Function-Based Exact Approach for the Bilevel Mixed-Integer Programming Problem. Operations Research, 2017, 65, 768-786.	1.9	75
10	Survivable network design under optimal and heuristic interdiction scenarios. Journal of Global Optimization, 2007, 38, 181-199.	1.8	73
11	Models and algorithms for the design of survivable multicommodity flow networks with general failure scenarios. Omega, 2008, 36, 1057-1071.	5.9	51
12	An improved linearization strategy for zero-one quadratic programming problems. Optimization Letters, 2006, 1, 33-47.	1.6	44
13	A class of algorithms for mixed-integer bilevel min–max optimization. Journal of Global Optimization, 2016, 66, 225-262.	1.8	44
14	Decomposition algorithms for the design of a nonsimultaneous capacitated evacuation tree network. Networks, 2009, 53, 91-103.	2.7	39
15	An Integer-Programming-Based Approach to the Close-Enough Traveling Salesman Problem. INFORMS Journal on Computing, 2014, 26, 415-432.	1.7	39
16	Algorithms for Network Interdiction and Fortification Games. Springer Optimization and Its Applications, 2008, , 609-644.	0.9	36
17	Decomposition algorithms for maximizing the lifetime of wireless sensor networks with mobile sinks. Computers and Operations Research, 2012, 39, 1054-1061.	4.0	34
18	A Backward Sampling Framework for Interdiction Problems with Fortification. INFORMS Journal on Computing, 2017, 29, 123-139.	1.7	33

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19	Radar pulse interleaving for multi-target tracking. Naval Research Logistics, 2004, 51, 72-94.	2.2	31
20	Dynamic shortestâ€path interdiction. Networks, 2016, 68, 315-330.	2.7	31
21	An Airspace Planning Model for Selecting Flight-plans Under Workload, Safety, and Equity Considerations. Transportation Science, 2002, 36, 378-397.	4.4	30
22	Optimal Multileaf Collimator Leaf Sequencing in IMRT Treatment Planning. Operations Research, 2010, 58, 674-690.	1.9	30
23	Securing a border under asymmetric information. Naval Research Logistics, 2014, 61, 91-100.	2.2	30
24	Solving discrete multi-objective optimization problems using modified augmented weighted Tchebychev scalarizations. European Journal of Operational Research, 2018, 271, 436-449.	5.7	30
25	Modern Network Interdiction Problems andÂAlgorithms. , 2013, , 1949-1987.		30
26	Sequential Search with Multiattribute Options. Decision Analysis, 2006, 3, 3-15.	2.1	29
27	A mixed-integer bilevel programming approach for a competitive prioritized set covering problem. Discrete Optimization, 2016, 20, 105-134.	0.9	27
28	New product introduction against a predator: A bilevel mixedâ€integer programming approach. Naval Research Logistics, 2009, 56, 714-729.	2.2	25
29	Algorithms and Complexity Analysis for Robust Single-Machine Scheduling Problems. Journal of Scheduling, 2015, 18, 575-592.	1.9	25
30	Expectation and Chance-Constrained Models and Algorithms for Insuring Critical Paths. Management Science, 2010, 56, 1794-1814.	4.1	23
31	A stochastic integer programming approach to solving a synchronous optical network ring design problem. Networks, 2004, 44, 12-26.	2.7	22
32	A packet filter placement problem with application to defense against spoofed denial of service attacks. European Journal of Operational Research, 2007, 176, 1283-1292.	5.7	22
33	Branch-and-price-and-cut algorithms for solving the reliable h-paths problem. Journal of Global Optimization, 2008, 42, 443-466.	1.8	19
34	Mathematical Programming Algorithms for Two-Path Routing Problems with Reliability Considerations. INFORMS Journal on Computing, 2008, 20, 553-564.	1.7	19
35	Conservation under uncertainty: optimal network protection strategies for worstâ€case disturbance events. Journal of Applied Ecology, 2015, 52, 1588-1597.	4.0	19
36	Enhanced Model Representations for an Intra-Ring Synchronous Optical Network Design Problem Allowing Demand Splitting. INFORMS Journal on Computing, 2000, 12, 284-298.	1.7	18

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37	A cutting-plane algorithm for solving a weighted influence interdiction problem. Computational Optimization and Applications, 2014, 57, 71-104.	1.6	18
38	Interleaving two-phased jobs on a single machine. Discrete Optimization, 2005, 2, 348-361.	0.9	17
39	Reduced first-level representations via the reformulation-linearization technique: results, counterexamples, and computations. Discrete Applied Mathematics, 2000, 101, 247-267.	0.9	16
40	Exact algorithms for solving a Euclidean maximum flow network interdiction problem. Networks, 2014, 64, 109-124.	2.7	15
41	A binary decision diagram based algorithm for solving a class of binary two-stage stochastic programs. Mathematical Programming, 2022, 191, 381-404.	2.4	14
42	Algorithms for solving the conditional covering problem on paths. Naval Research Logistics, 2005, 52, 293-301.	2.2	13
43	A polyhedral study of the generalized vertex packing problem. Mathematical Programming, 2006, 107, 367-390.	2.4	13
44	Dynamic-programming-based inequalities for the capacitated lot-sizing problem. IIE Transactions, 2010, 42, 915-930.	2.1	13
45	Social Network Analysis and Quantification of a Prototypical Acute Pain Medicine and Regional Anesthesia Service. Pain Medicine, 2012, 13, 808-819.	1.9	12
46	A defender-attacker model and algorithm for maximizing weighted expected hitting time with application to conservation planning. IISE Transactions, 2017, 49, 1112-1128.	2.4	12
47	An Optimal Cutting-Plane Algorithm for Solving the Non-Unique Probe Selection Problem. Annals of Biomedical Engineering, 2007, 35, 2023-2030.	2.5	11
48	Two-stage stochastic hierarchical multiple risk problems: models and algorithms. Mathematical Programming, 2009, 120, 403-427.	2.4	11
49	Network interdiction with asymmetric cost uncertainty. European Journal of Operational Research, 2022, 297, 239-251.	5.7	11
50	National Airspace Sector Occupancy and Conflict Analysis Models for Evaluating Scenarios under the Free-Flight Paradigm. Transportation Science, 2000, 34, 321-336.	4.4	10
51	Cutting plane algorithms for solving a stochastic edge-partition problem. Discrete Optimization, 2009, 6, 420-435.	0.9	10
52	The lifetime maximization problem in wireless sensor networks with a mobile sink: mixed-integer programming formulations and algorithms. IIE Transactions, 2013, 45, 1094-1113.	2.1	10
53	The Shortest Path Interdiction Problem with Randomized Interdiction Strategies: Complexity and Algorithms. Operations Research, 2021, 69, 82-99.	1.9	10
54	An Analysis of the Alias Method for Discrete Random-Variate Generation. INFORMS Journal on Computing, 2005, 17, 321-327.	1.7	9

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55	Automatic thresholding of three-dimensional microvascular structures from confocal microscopy images. Journal of Microscopy, 2007, 225, 244-257.	1.8	9
56	A three‐stage procurement optimization problem under uncertainty. Naval Research Logistics, 2013, 60, 395-412.	2.2	9
57	Procurement allocation planning with multiple suppliers under competition. International Journal of Production Research, 2013, 51, 6900-6922.	7.5	9
58	Parallel Asset Replacement Problem under Economies of Scale with Multiple Challengers. Engineering Economist, 2014, 59, 237-258.	1.1	9
59	Convex hull representation of the deterministic bipartite network interdiction problem. Mathematical Programming, 2014, 145, 349-376.	2.4	9
60	Solving the traveling salesman problem with interdiction and fortification. Operations Research Letters, 2017, 45, 210-216.	0.7	9
61	Shortest path interdiction problem with arc improvement recourse: A multiobjective approach. Naval Research Logistics, 2019, 66, 230-252.	2.2	9
62	Algorithms for distributing telecommunication traffic on a multiple-ring SONET-based network. European Journal of Operational Research, 2004, 154, 659-672.	5.7	8
63	Optimization Support for Senior Design Project Assignments. Interfaces, 2008, 38, 448-464.	1.5	8
64	Mixed-integer programming techniques for decomposing IMRT fluence maps using rectangular apertures. Annals of Operations Research, 2012, 196, 799-818.	4.1	8
65	A combinatorial optimization algorithm for solving theÂbranchwidth problem. Computational Optimization and Applications, 2012, 51, 1211-1229.	1.6	8
66	A bracket assignment problem for the National Collegiate Athletic Association Men's Basketball Tournament. International Transactions in Operational Research, 2006, 13, 253-271.	2.7	7
67	Designing fair 8- and 16-team knockout tournaments. IMA Journal of Management Mathematics, 2013, 24, 321-336.	1.6	7
68	Partial objective inequalities for the multi-item capacitated lot-sizing problem. Computers and Operations Research, 2018, 91, 132-144.	4.0	7
69	Dynamic programming algorithms for the conditional covering problem on path and extended star graphs. Networks, 2005, 46, 177-185.	2.7	6
70	A dynamic programming algorithm for the conditional covering problem on tree graphs. Networks, 2005, 46, 186-197.	2.7	6
71	Distributed algorithm for lifetime maximization in delay-tolerant wireless sensor network with mobile sink. , 2010, , .		6
72	Integer programming models and algorithms for the graph decontamination problem with mobile agents. Networks, 2013, 61, 1-19.	2.7	6

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73	A decomposition approach for solving a broadcast domination network design problem. Annals of Operations Research, 2013, 210, 333-360.	4.1	6
74	A robust sensor covering and communication problem. Naval Research Logistics, 2015, 62, 582-594.	2.2	6
75	Exact algorithms and bounds for the dynamic assignment interdiction problem. Naval Research Logistics, 2017, 64, 373-387.	2.2	6
76	On the Consistent Path Problem. Operations Research, 2020, 68, 1913-1931.	1.9	6
77	Exact and heuristic algorithms for solving the generalized minimum filter placement problem. Journal of Combinatorial Optimization, 2006, 12, 231-256.	1.3	5
78	An integer decomposition algorithm for solving a two€stage facility location problem with second€stage activation costs. Naval Research Logistics, 2010, 57, 391-402.	2.2	5
79	Algorithms for an Integer Multicommodity Network Flow Problem with Node Reliability Considerations. Journal of Optimization Theory and Applications, 2014, 161, 506-532.	1.5	5
80	Algorithms for optimizing the placement of stationary monitors. IIE Transactions, 2015, 47, 556-576.	2.1	5
81	Convex hull representations of models for computing collisions between multiple bodies. European Journal of Operational Research, 2001, 135, 514-526.	5.7	4
82	On the multi-attribute stopping problem with general value functions. Operations Research Letters, 2007, 35, 324-330.	0.7	3
83	Higher-level RLT or disjunctive cuts based on a partial enumeration strategy for 0-1 mixed-integer programs. Optimization Letters, 2012, 6, 127-139.	1.6	3
84	Asymmetric stochastic shortest-path interdiction under conditional value-at-risk. IISE Transactions, 2024, 56, 398-410.	2.4	3
85	A class of web-based facets for the generalized vertex packing problem. Discrete Applied Mathematics, 2005, 146, 273-286.	0.9	2
86	An exact reformulation-linearisation technique algorithm for solving a parameter extraction problem arising in compact thermal models. Optimization Methods and Software, 2009, 24, 857-870.	2.4	2
87	Dynamic Lagrangian dual and reduced RLT constructs for solving 0€"1 mixed-integer programs. Top, 2012, 20, 173-189.	1.6	2
88	A branch-and-price-and-cut method for computing an optimal bramble. Discrete Optimization, 2015, 18, 168-188.	0.9	2
89	On a Random Walk Survivability problem with arc failures and memory. Networks, 2015, 66, 67-86.	2.7	2
90	Minimum€cost flow problems having arc€activation costs. Naval Research Logistics, 2022, 69, 320-335.	2.2	2

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91	An Introduction to Integer and Large-Scale Linear Optimization. Profiles in Operations Research, 2011, , 65-97.	0.4	2
92	A Dynamic Programming Algorithm for the Generalized Minimum Filter Placement Problem on Tree Structures. INFORMS Journal on Computing, 2009, 21, 322-332.	1.7	1
93	A parameter optimization heuristic for a temperature estimationÂmodel. Optimization and Engineering, 2009, 10, 19-42.	2.4	1
94	Models and algorithms for maximum flow problems having semicontinuous path flow constraints. IISE Transactions, 2018, 50, 484-498.	2.4	1
95	Models for Assessing Vulnerability in Imperfect Sensor Networks. Springer Proceedings in Mathematics and Statistics, 2013, , 269-289.	0.2	1
96	Parameter Optimization for a Temperature Estimation Model. , 2003, , .		1
97	A Brief Overview of Interdiction and Robust Optimization. Springer Optimization and Its Applications, 2019, , 33-39.	0.9	1
98	Teaching Dynamic Programming and Duality Insights Using Games, Interdiction, and Robust Optimization. , 0, , 127-150.		0
99	Branchâ€cutâ€price algorithms for solving a class of search problems on general graphs. Networks, 2017, 70, 4-18.	2.7	0
100	An augmentingâ€flow algorithm for a class of nodeâ€capacitated maximum flow problems. Networks, 0, , .	2.7	0