

# Natashia L Boland

## List of Publications by Year in descending order

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98  
papers

2,945  
citations

201674

27  
h-index

182427

51  
g-index

99  
all docs

99  
docs citations

99  
times ranked

2069  
citing authors

#	ARTICLE	IF	CITATIONS
1	Flight String Models for Aircraft Fleeting and Routing. <i>Transportation Science</i> , 1998, 32, 208-220.	4.4	256
2	The capacitated multiple allocation hub location problem: Formulations and algorithms. <i>European Journal of Operational Research</i> , 2000, 120, 614-631.	5.7	232
3	Improved preprocessing, labeling and scaling algorithms for the Weight-Constrained Shortest Path Problem. <i>Networks</i> , 2003, 42, 135-153.	2.7	155
4	Accelerated label setting algorithms for the elementary resource constrained shortest path problem. <i>Operations Research Letters</i> , 2006, 34, 58-68.	0.7	141
5	LP-based disaggregation approaches to solving the open pit mining production scheduling problem with block processing selectivity. <i>Computers and Operations Research</i> , 2009, 36, 1064-1089.	4.0	119
6	Preprocessing and cutting for multiple allocation hub location problems. <i>European Journal of Operational Research</i> , 2004, 155, 638-653.	5.7	118
7	A Hybrid Algorithm for the Examination Timetabling Problem. <i>Lecture Notes in Computer Science</i> , 2003, , 207-231.	1.3	106
8	The Continuous-Time Service Network Design Problem. <i>Operations Research</i> , 2017, 65, 1303-1321.	1.9	103
9	A strengthened formulation and cutting planes for the open pit mine production scheduling problem. <i>Computers and Operations Research</i> , 2010, 37, 1641-1647.	4.0	86
10	Minimizing beam-on time in cancer radiation treatment using multileaf collimators. <i>Networks</i> , 2004, 43, 226-240.	2.7	82
11	A Criterion Space Search Algorithm for Biobjective Integer Programming: The Balanced Box Method. <i>INFORMS Journal on Computing</i> , 2015, 27, 735-754.	1.7	64
12	Solving shortest path problems with a weight constraint and replenishment arcs. <i>Computers and Operations Research</i> , 2012, 39, 964-984.	4.0	59
13	A Matheuristic for the Multivehicle Inventory Routing Problem. <i>INFORMS Journal on Computing</i> , 2017, 29, 377-387.	1.7	58
14	Switch and Tap-Changer Reconfiguration of Distribution Networks Using Evolutionary Algorithms. <i>IEEE Transactions on Power Systems</i> , 2013, 28, 85-92.	6.5	52
15	Algorithms for the Weight Constrained Shortest Path Problem. <i>International Transactions in Operational Research</i> , 2001, 8, 15-29.	2.7	50
16	Exact procedures for solving the discrete ordered median problem. <i>Computers and Operations Research</i> , 2006, 33, 3270-3300.	4.0	50
17	Comparison of Mixed-Integer Programming and Genetic Algorithm Methods for Distributed Generation Planning. <i>IEEE Transactions on Power Systems</i> , 2014, 29, 833-843.	6.5	49
18	Using optimization to develop a "designer" environmental flow regime. <i>Environmental Modelling and Software</i> , 2017, 88, 188-199.	4.5	49

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19	A Criterion Space Search Algorithm for Biobjective Mixed Integer Programming: The Triangle Splitting Method. <i>INFORMS Journal on Computing</i> , 2015, 27, 597-618.	1.7	48
20	Optimization tools for environmental water decisions: A review of strengths, weaknesses, and opportunities to improve adoption. <i>Environmental Modelling and Software</i> , 2016, 84, 326-338.	4.5	48
21	The L-shape search method for triobjective integer programming. <i>Mathematical Programming Computation</i> , 2016, 8, 217-251.	4.8	44
22	The Quadrant Shrinking Method: A simple and efficient algorithm for solving tri-objective integer programs. <i>European Journal of Operational Research</i> , 2017, 260, 873-885.	5.7	41
23	Dynamic Discretization Discovery for Solving the Time-Dependent Traveling Salesman Problem with Time Windows. <i>Transportation Science</i> , 2020, 54, 703-720.	4.4	39
24	Combining Progressive Hedging with a Frank-Wolfe Method to Compute Lagrangian Dual Bounds in Stochastic Mixed-Integer Programming. <i>SIAM Journal on Optimization</i> , 2018, 28, 1312-1336.	2.0	38
25	A new method for optimizing a linear function over the efficient set of a multiobjective integer program. <i>European Journal of Operational Research</i> , 2017, 260, 904-919.	5.7	37
26	New integer linear programming approaches for course timetabling. <i>Computers and Operations Research</i> , 2008, 35, 2209-2233.	4.0	34
27	The asymmetric traveling salesman problem with replenishment arcs. <i>European Journal of Operational Research</i> , 2000, 123, 408-427.	5.7	32
28	Mixed integer programming based maintenance scheduling for the Hunter Valley coal chain. <i>Journal of Scheduling</i> , 2013, 16, 649-659.	1.9	27
29	Throughput optimisation in a coal export system with multiple terminals and shared resources. <i>Computers and Industrial Engineering</i> , 2019, 134, 37-51.	6.3	26
30	Mixed integer programming approaches to exact minimization of total treatment time in cancer radiotherapy using multileaf collimators. <i>Computers and Operations Research</i> , 2009, 36, 795-810.	4.0	24
31	Scheduling arc maintenance jobs in a network to maximize total flow over time. <i>Discrete Applied Mathematics</i> , 2014, 163, 34-52.	0.9	24
32	Perspectives on integer programming for time-dependent models. <i>Top</i> , 2019, 27, 147-173.	1.6	24
33	Pricing to accelerate demand learning in dynamic assortment planning for perishable products. <i>European Journal of Operational Research</i> , 2014, 237, 555-565.	5.7	23
34	Boosting the feasibility pump. <i>Mathematical Programming Computation</i> , 2014, 6, 255-279.	4.8	23
35	A faster version of the ASG algorithm. <i>Applied Mathematics Letters</i> , 1994, 7, 23-27.	2.7	22
36	Path inequalities for the vehicle routing problem with time windows. <i>Networks</i> , 2007, 49, 273-293.	2.7	22

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37	Minimum Cardinality Matrix Decomposition into Consecutive-Ones Matrices: CP and IP Approaches. Lecture Notes in Computer Science, 2007, , 1-15.	1.3	22
38	New multi-commodity flow formulations for the pooling problem. Journal of Global Optimization, 2016, 66, 669-710.	1.8	21
39	The price of discretizing time: a study in service network design. EURO Journal on Transportation and Logistics, 2019, 8, 195-216.	2.2	21
40	Bounding the gap between the McCormick relaxation and the convex hull for bilinear functions. Mathematical Programming, 2017, 162, 523-535.	2.4	20
41	Simultaneous solution of Lagrangean dual problems interleaved with preprocessing for the weight constrained shortest path problem. Networks, 2009, 53, 358-381.	2.7	19
42	A New Approach to the Feasibility Pump in Mixed Integer Programming. SIAM Journal on Optimization, 2012, 22, 831-861.	2.0	19
43	Integrated Aircraft Routing, Crew Pairing, and Tail Assignment: Branch-and-Price with Many Pricing Problems. Transportation Science, 2017, 51, 177-195.	4.4	18
44	Logistics optimization for a coal supply chain. Journal of Heuristics, 2020, 26, 269-300.	1.4	18
45	Amplifier Placement Methods for Metropolitan WDM Ring Networks. Journal of Lightwave Technology, 2004, 22, 2509-2522.	4.6	17
46	Proximity Benders: a decomposition heuristic for stochastic programs. Journal of Heuristics, 2016, 22, 181-198.	1.4	17
47	Efficient Intelligent Backtracking Using Linear Programming. INFORMS Journal on Computing, 2002, 14, 373-386.	1.7	16
48	A parallelizable augmented Lagrangian method applied to large-scale non-convex-constrained optimization problems. Mathematical Programming, 2019, 175, 503-536.	2.4	15
49	The Continuous-Time Inventory-Routing Problem. Transportation Science, 2020, 54, 375-399.	4.4	15
50	Interval-Based Dynamic Discretization Discovery for Solving the Continuous-Time Service Network Design Problem. Transportation Science, 2021, 55, 29-51.	4.4	15
51	A Criterion Space Method for Biobjective Mixed Integer Programming: The Boxed Line Method. INFORMS Journal on Computing, 2020, 32, 16-39.	1.7	14
52	CP and IP approaches to cancer radiotherapy delivery optimization. Constraints, 2011, 16, 173-194.	0.7	13
53	Active Management of Environmental Water to Improve Ecological Outcomes. Journal of Water Resources Planning and Management - ASCE, 2018, 144, .	2.6	13
54	Optimizing wind farm siting to reduce power system impacts of wind variability. Wind Energy, 2019, 22, 894-907.	4.2	13

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55	Clique-based facets for the precedence constrained knapsack problem. <i>Mathematical Programming</i> , 2012, 133, 481-511.	2.4	12
56	On the augmented Lagrangian dual for integer programming. <i>Mathematical Programming</i> , 2015, 150, 491-509.	2.4	12
57	Optimizing the Hunter Valley Coal Chain. , 2012, , 275-302.		12
58	(N-1) contingency planning in radial distribution networks using genetic algorithms. , 2010, , .		11
59	Local Search for a Cargo Assembly Planning Problem. <i>Lecture Notes in Computer Science</i> , 2014, , 159-175.	1.3	11
60	A Bucket Indexed Formulation for Nonpreemptive Single Machine Scheduling Problems. <i>INFORMS Journal on Computing</i> , 2016, 28, 14-30.	1.7	10
61	An algorithm for solving quadratic network flow problems. <i>Applied Mathematics Letters</i> , 1991, 4, 61-64.	2.7	9
62	The Value of Limited Flexibility in Service Network Designs. <i>Transportation Science</i> , 2021, 55, 52-74.	4.4	9
63	Solving the Traveling Salesman Problem with Time Windows Through Dynamically Generated Time-Expanded Networks. <i>Lecture Notes in Computer Science</i> , 2017, , 254-262.	1.3	9
64	An outer approximate subdifferential method for piecewise affine optimization. <i>Mathematical Programming</i> , 2000, 87, 57-86.	2.4	8
65	Scheduling network maintenance jobs with release dates and deadlines to maximize total flow over time: Bounds and solution strategies. <i>Computers and Operations Research</i> , 2015, 64, 113-129.	4.0	8
66	Minimum cardinality non-anticipativity constraint sets for multistage stochastic programming. <i>Mathematical Programming</i> , 2016, 157, 69-93.	2.4	8
67	Sampling Scenario Set Partition Dual Bounds for Multistage Stochastic Programs. <i>INFORMS Journal on Computing</i> , 2020, 32, 145-163.	1.7	8
68	Polyhedral results and exact algorithms for the asymmetric travelling salesman problem with replenishment arcs. <i>Discrete Applied Mathematics</i> , 2007, 155, 2093-2110.	0.9	7
69	The Triangle Splitting Method for Biobjective Mixed Integer Programming. <i>Lecture Notes in Computer Science</i> , 2014, , 162-173.	1.3	7
70	Convergent Network Approximation for the Continuous Euclidean Length Constrained Minimum Cost Path Problem. <i>SIAM Journal on Optimization</i> , 2009, 20, 54-77.	2.0	6
71	Airline planning benchmark problemsâ€™Part II: Passenger groups, utility and demand allocation. <i>Computers and Operations Research</i> , 2013, 40, 793-804.	4.0	6
72	Scheduling arc shut downs in a network to maximize flow over time with a bounded number of jobs per time period. <i>Journal of Combinatorial Optimization</i> , 2016, 32, 885-905.	1.3	6

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73	Preprocessing and cut generation techniques for multi-objective binary programming. European Journal of Operational Research, 2019, 274, 858-875.	5.7	6
74	Time-Dependent Shortest Path Problems with Penalties and Limits on Waiting. INFORMS Journal on Computing, 2021, 33, 997-1014.	1.7	6
75	Multivariable Branching: A 0-1 Knapsack Problem Case Study. INFORMS Journal on Computing, 0, , .	1.7	6
76	Facets of the polytope of the asymmetric travelling salesman problem with replenishment arcs. Discrete Optimization, 2006, 3, 33-49.	0.9	5
77	A New Sequential Extraction Heuristic for Optimizing the Delivery of Cancer Radiation Treatment Using Multileaf Collimators. INFORMS Journal on Computing, 2009, 21, 224-241.	1.7	5
78	Scheduling unit time arc shutdowns to maximize network flow over time: Complexity results. Networks, 2014, 63, 196-202.	2.7	5
79	A polynomially solvable case of the pooling problem. Journal of Global Optimization, 2017, 67, 621-630.	1.8	5
80	Dynamic discretization discovery for solving the Continuous Time Inventory Routing Problem with Out-and-Back Routes. Computers and Operations Research, 2022, 141, 105686.	4.0	5
81	A decision support tool for generating shipping data for the Hunter Valley coal chain. Computers and Operations Research, 2015, 53, 54-67.	4.0	4
82	Learning generalized strong branching for set covering, set packing, and 0-1 knapsack problems. European Journal of Operational Research, 2022, 301, 828-840.	5.7	4
83	Title is missing!. Annals of Operations Research, 2001, 108, 143-156.	4.1	3
84	A Trust Region Method for the Solution of the Surrogate Dual in Integer Programming. Journal of Optimization Theory and Applications, 2015, 167, 558-584.	1.5	3
85	A Dynamic Discretization Discovery Algorithm for the Minimum Duration Time-Dependent Shortest Path Problem. Lecture Notes in Computer Science, 2018, , 289-297.	1.3	3
86	Optimal Two-commodity Flows with Non-linear Cost Functions. Journal of the Operational Research Society, 1995, 46, 1192-1107.	3.4	2
87	Airline planning benchmark problemsâ€”Part I: Computers and Operations Research, 2013, 40, 775-792.	4.0	2
88	Decomposition of loosely coupled integer programs: a multiobjective perspective. Mathematical Programming, 2022, 196, 427-477.	2.4	2
89	Dynamic Discretization Discovery Algorithms for Time-Dependent Shortest Path Problems. INFORMS Journal on Computing, 2022, 34, 1086-1114.	1.7	2
90	New methods for multi-commodity flows. Computers and Mathematics With Applications, 1990, 20, 29-38.	2.7	1

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91	Multi-objective Optimisation of Power Restoration in Electricity Distribution Systems. Lecture Notes in Computer Science, 2011, , 779-788.	1.3	1
92	Assortment and Pricing with Demand Learning. SSRN Electronic Journal, 2012, , .	0.4	1
93	Near real-time loadplan adjustments for less-than-truckload carriers. European Journal of Operational Research, 2022, 301, 1021-1034.	5.7	1
94	Decomposition Branching for Mixed Integer Programming. Operations Research, 2022, 70, 1854-1872.	1.9	1
95	An Algorithm for Non-linear Network Programming: Implementation, Results and Comparisons. Journal of the Operational Research Society, 1992, 43, 979-992.	3.4	1
96	Transport scheduling: Meeting the challenges of scale, complexity and uncertainty. Computers and Operations Research, 2013, 40, 655-656.	4.0	0
97	Rejoinder on: Perspectives on integer programming for time-dependent models. Top, 2019, 27, 184-186.	1.6	0
98	Corrigendum to "A Bucket Indexed Formulation for Nonpreemptive Single Machine Scheduling Problems," INFORMS Journal on Computing 28(1):14-30, 2016. INFORMS Journal on Computing, 0, , .	1.7	0