

Stefan Irnich

List of Publications by Year in descending order

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65
papers

2,270
citations

257357

24
h-index

276775

41
g-index

66
all docs

66
docs citations

66
times ranked

1509
citing authors

#	ARTICLE	IF	CITATIONS
1	Exact Algorithms for Electric Vehicle-Routing Problems with Time Windows. <i>Operations Research</i> , 2016, 64, 1388-1405.	1.2	304
2	Shortest Path Problems with Resource Constraints. , 2005, , 33-65.		279
3	The Shortest-Path Problem with Resource Constraints and k-Cycle Elimination for k ≥ 3. <i>INFORMS Journal on Computing</i> , 2006, 18, 391-406.	1.0	148
4	Local Search for Vehicle Routing and Scheduling Problems: Review and Conceptual Integration. <i>Journal of Heuristics</i> , 2005, 11, 267-306.	1.1	86
5	Resource extension functions: properties, inversion, and generalization to segments. <i>OR Spectrum</i> , 2007, 30, 113-148.	2.1	86
6	Sequential search and its application to vehicle-routing problems. <i>Computers and Operations Research</i> , 2006, 33, 2405-2429.	2.4	72
7	Formulations for an inventory routing problem. <i>International Transactions in Operational Research</i> , 2014, 21, 353-374.	1.8	66
8	A multi-depot pickup and delivery problem with a single hub and heterogeneous vehicles. <i>European Journal of Operational Research</i> , 2000, 122, 310-328.	3.5	51
9	Effective Handling of Dynamic Time Windows and Its Application to Solving the Dial-a-Ride Problem. <i>Transportation Science</i> , 2015, 49, 335-354.	2.6	51
10	A Unified Modeling and Solution Framework for Vehicle Routing and Local Search-Based Metaheuristics. <i>INFORMS Journal on Computing</i> , 2008, 20, 270-287.	1.0	50
11	Cut-First Branch-and-Price-Second for the Capacitated Arc-Routing Problem. <i>Operations Research</i> , 2012, 60, 1167-1182.	1.2	50
12	Path-Reduced Costs for Eliminating Arcs in Routing and Scheduling. <i>INFORMS Journal on Computing</i> , 2010, 22, 297-313.	1.0	47
13	Large multiple neighborhood search for the clustered vehicle-routing problem. <i>European Journal of Operational Research</i> , 2018, 270, 118-131.	3.5	47
14	Chapter 1: The Family of Vehicle Routing Problems. , 2014, , 1-33.		46
15	Asymmetry matters: Dynamic half-way points in bidirectional labeling for solving shortest path problems with resource constraints faster. <i>European Journal of Operational Research</i> , 2017, 261, 530-539.	3.5	46
16	Solution of real-world postman problems. <i>European Journal of Operational Research</i> , 2008, 190, 52-67.	3.5	43
17	An Exact Method for Vehicle Routing and Truck Driver Scheduling Problems. <i>Transportation Science</i> , 2017, 51, 737-754.	2.6	43
18	Branch-price-and-cut algorithms for the pickup and delivery problem with time windows and multiple stacks. <i>European Journal of Operational Research</i> , 2016, 250, 782-793.	3.5	37

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19	Branch-and-price-and-cut for a service network design and hub location problem. European Journal of Operational Research, 2016, 255, 935-947.	3.5	36
20	A new compact formulation for the discrete p-dispersion problem. European Journal of Operational Research, 2017, 256, 62-67.	3.5	36
21	Branch-and-Price-and-Cut for the Truck-and-Trailer Routing Problem with Time Windows. Transportation Science, 2018, 52, 1174-1190.	2.6	33
22	Branch-and-Price-and-Cut for the Active-Passive Vehicle-Routing Problem. Transportation Science, 2018, 52, 300-319.	2.6	32
23	Bidirectional labeling in column-generation algorithms for pickup-and-delivery problems. European Journal of Operational Research, 2018, 266, 521-530.	3.5	31
24	Chapter 9: Four Variants of the Vehicle Routing Problem. , 2014, , 241-271.		29
25	Dual Inequalities for Stabilized Column Generation Revisited. INFORMS Journal on Computing, 2016, 28, 175-194.	1.0	29
26	Finding all k-cliques in k-partite graphs, an application in textile engineering. Computers and Operations Research, 2002, 29, 13-31.	2.4	26
27	Branch-and-Cut for the Split Delivery Vehicle Routing Problem with Time Windows. Transportation Science, 2019, 53, 442-462.	2.6	26
28	The last-mile vehicle routing problem with delivery options. OR Spectrum, 2021, 43, 877-904.	2.1	26
29	A new branch-and-price algorithm for the traveling tournament problem. European Journal of Operational Research, 2010, 204, 218-228.	3.5	24
30	Dynamic Programming for the Minimum Tour Duration Problem. Transportation Science, 2017, 51, 549-565.	2.6	24
31	Strategic Planning for Integrated Mobility-on-Demand and Urban Public Bus Networks. Transportation Science, 2020, 54, 1616-1639.	2.6	24
32	The shortest-path problem with resource constraints with -loop elimination and its application to the capacitated arc-routing problem. European Journal of Operational Research, 2014, 238, 415-426.	3.5	21
33	The Split Delivery Vehicle Routing Problem with Time Windows and Customer Inconvenience Constraints. Transportation Science, 2019, 53, 1067-1084.	2.6	21
34	Exact solution of the soft-clustered vehicle-routing problem. European Journal of Operational Research, 2020, 280, 164-178.	3.5	20
35	Stabilized branch-price-and-cut for the commodity-constrained split delivery vehicle routing problem. European Journal of Operational Research, 2019, 278, 91-104.	3.5	19
36	Two-phase branch-and-cut for the mixed capacitated general routing problem. European Journal of Operational Research, 2015, 243, 17-29.	3.5	17

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37	Stabilized branch-and-price algorithms for vector packing problems. <i>European Journal of Operational Research</i> , 2018, 271, 401-419.	3.5	16
38	Vehicle Routing Problems with Inter-Tour Resource Constraints. <i>Operations Research/ Computer Science Interfaces Series</i> , 2008, , 421-444.	0.3	15
39	Solving elementary shortest-path problems as mixed-integer programs. <i>OR Spectrum</i> , 2014, 36, 281-296.	2.1	15
40	In-Depth Analysis of Pricing Problem Relaxations for the Capacitated Arc-Routing Problem. <i>Transportation Science</i> , 2015, 49, 369-383.	2.6	15
41	Branch-and-Cut-and-Price for the Vehicle Routing Problem with Time Windows and Convex Node Costs. <i>Transportation Science</i> , 2019, 53, 1409-1426.	2.6	13
42	Maximum weight relaxed cliques and Russian Doll Search revisited. <i>Discrete Applied Mathematics</i> , 2018, 234, 131-138.	0.5	12
43	Variable Fixing for Two-Arc Sequences in Branch-Price-and-Cut Algorithms on Path-Based Models. <i>Transportation Science</i> , 2020, 54, 1170-1188.	2.6	12
44	Schedule-Based Integrated Intercity Bus Line Planning via Branch-and-Cut. <i>Transportation Science</i> , 2018, 52, 882-897.	2.6	11
45	Routing electric vehicles with a single recharge per route. <i>Networks</i> , 2020, 76, 187-205.	1.6	11
46	A Note on Single Alternating Cycle Neighborhoods for the TSP. <i>Journal of Heuristics</i> , 2005, 11, 135-146.	1.1	10
47	Stabilized column generation for the temporal knapsack problem using dual-optimal inequalities. <i>OR Spectrum</i> , 2017, 39, 541-556.	2.1	10
48	A Note on Postman Problems with Zigzag Service. <i>Infor</i> , 2005, 43, 33-39.	0.5	9
49	A branch-and-cut algorithm for the soft-clustered vehicle-routing problem. <i>Discrete Applied Mathematics</i> , 2021, 288, 218-234.	0.5	9
50	A branch-price-and-cut algorithm for the capacitated multiple vehicle traveling purchaser problem with unitary demand. <i>Discrete Applied Mathematics</i> , 2021, 288, 152-170.	0.5	9
51	Nested branch-and-price-and-cut for vehicle routing problems with multiple resource interdependencies. <i>European Journal of Operational Research</i> , 2019, 276, 549-565.	3.5	8
52	A note on symmetry reduction for circular traveling tournament problems. <i>European Journal of Operational Research</i> , 2011, 210, 452-456.	3.5	7
53	Combined column-and-row-generation for the optimal communication spanning tree problem. <i>Computers and Operations Research</i> , 2018, 93, 113-122.	2.4	7
54	Hybridizing large neighborhood search and exact methods for generalized vehicle routing problems with time windows. <i>EURO Journal on Transportation and Logistics</i> , 2021, 10, 100040.	1.3	7

#	ARTICLE	IF	CITATIONS
55	Chapter 9: The Capacitated Arc Routing Problem: Exact Algorithms. , 2015, , 183-221.		6
56	Branch-cut-and-price for scheduling deliveries with time windows in a direct shipping network. Journal of Scheduling, 2020, 23, 363-377.	1.3	6
57	A matheuristic for a 2-echelon vehicle routing problem with capacitated satellites and reverse flows. European Journal of Operational Research, 2023, 305, 64-84.	3.5	6
58	Undirected postman problems with zigzagging option: A cutting-plane approach. Computers and Operations Research, 2008, 35, 3998-4009.	2.4	5
59	Optimal booking control in revenue management with two substitutable resources. Mathematical Methods of Operations Research, 2019, 89, 189-222.	0.4	5
60	Bin packing with lexicographic objectives for loading weight- and volume-constrained trucks in a direct-shipping system. OR Spectrum, 0, , 1.	2.1	4
61	A note on the linearity of Ratliff and Rosenthal's algorithm for optimal picker routing. Operations Research Letters, 2022, 50, 155-159.	0.5	4
62	New neighborhoods and an iterated local search algorithm for the generalized traveling salesman problem. EURO Journal on Computational Optimization, 2022, 10, 100029.	1.5	4
63	Branch-Price-and-Cut for the Soft-Clustered Capacitated Arc-Routing Problem. Transportation Science, 2021, 55, 687-705.	2.6	3
64	A Branch-and-Price Framework for Decomposing Graphs into Relaxed Cliques. INFORMS Journal on Computing, 2021, 33, 1070-1090.	1.0	2
65	Cut-First Branch-and-Price Second for the Capacitated Arc-Routing Problem. Operations Research Proceedings: Papers of the Annual Meeting = Vorträge Der Jahrestagung / DGOR, 2016, , 501-506.	0.1	0