Guy Desaulniers

List of Publications by Citations

122 papers	**3,804** citations	**35** h-index	**58** g-index
130 ext. papers	**4,473** ext. citations	**3.6** avg, IF	**5.8** L-index

#	Paper	IF	Citations
122	**Shortest Path Problems with Resource Constraints 2005**, 33-65		201
121	Exact Algorithms for Electric Vehicle-Routing Problems with Time Windows. *Operations Research*, **2016**, 64, 1388-1405	2.3	192
120	7. VRP with Time Windows **2002**, 157-193		148
119	Daily Aircraft Routing and Scheduling. *Management Science*, **1997**, 43, 841-855	3.9	134
118	Tabu Search, Partial Elementarity, and Generalizedk-Path Inequalities for the Vehicle Routing Problem with Time Windows. *Transportation Science*, **2008**, 42, 387-404	4.4	132
117	Simultaneous Vehicle and Crew Scheduling in Urban Mass Transit Systems. *Transportation Science*, **2001**, 35, 286-303	4.4	124
116	Branch-and-Price-and-Cut for the Split-Delivery Vehicle Routing Problem with Time Windows. *Operations Research*, **2010**, 58, 179-192	2.3	117
115	Crew pairing at Air France. *European Journal of Operational Research*, **1997**, 97, 245-259	5.6	111
114	Chapter 2 Public Transit. *Handbooks in Operations Research and Management Science*, **2007**, 69-127		111
113	A Unified Framework for Deterministic Time Constrained Vehicle Routing and Crew Scheduling Problems **1998**, 57-93		99
112	A Branch-and-Price Method for a Liquefied Natural Gas Inventory Routing Problem. *Transportation Science*, **2010**, 44, 400-415	4.4	97
111	9. VRP with Pickup and Delivery **2002**, 225-242		82
110	Multi-depot vehicle scheduling problems with time windows and waiting costs. *European Journal of Operational Research*, **1998**, 111, 479-494	5.6	77
109	A comparison of five heuristics for the multiple depot vehicle scheduling problem. *Journal of Scheduling*, **2009**, 12, 17-30	1.6	73
108	A branch-and-price-based large neighborhood search algorithm for the vehicle routing problem with time windows. *Networks*, **2009**, 54, 190-204	1.6	70
107	European Driver Rules in Vehicle Routing with Time Windows. *Transportation Science*, **2010**, 44, 455-473	4.4	66
106	A Branch-Price-and-Cut Algorithm for the Inventory-Routing Problem. *Transportation Science*, **2016**, 50, 1060-1076	4.4	65

105	A priori optimization with recourse for the vehicle routing problem with hard time windows and stochastic service times. *European Journal of Operational Research*, **2016**, 249, 55-66	5.6	62
104	A branch-and-price algorithm for the Vehicle Routing Problem with Deliveries, Selective Pickups and Time Windows. *European Journal of Operational Research*, **2010**, 206, 341-349	5.6	61
103	Dynamic Aggregation of Set-Partitioning Constraints in Column Generation. *Operations Research*, **2005**, 53, 632-645	2.3	60
102	Enhanced Branch and Price and Cut for Vehicle Routing with Split Deliveries and Time Windows. *Transportation Science*, **2011**, 45, 285-298	4.4	55
101	Operational car assignment at VIA Rail Canada. *Transportation Research Part B: Methodological*, **2002**, 36, 755-778	7.2	55
100	A population-based metaheuristic for the pickup and delivery problem with time windows and LIFO loading. *Computers and Operations Research*, **2015**, 62, 23-35	4.6	53
99	Chapter 5: The Vehicle Routing Problem with Time Windows **2014**, 119-159		52
98	Column Generation with Dynamic Duty Selection for Railway Crew Rescheduling. *Transportation Science*, **2010**, 44, 493-505	4.4	52
97	A branch-cut-and-price algorithm for the vehicle routing problem with stochastic demands. *Computers and Operations Research*, **2014**, 50, 141-153	4.6	50
96	The discrete time window assignment vehicle routing problem. *European Journal of Operational Research*, **2015**, 244, 379-391	5.6	47
95	The shortest path problem with forbidden paths. *European Journal of Operational Research*, **2005**, 165, 97-107	5.6	47
94	Exact Branch-Price-and-Cut Algorithms for Vehicle Routing. *Transportation Science*, **2019**, 53, 946-985	4.4	46
93	A matheuristic for the liner shipping network design problem. *Transportation Research, Part E: Logistics and Transportation Review*, **2014**, 72, 42-59	9	45
92	. *IEEE Transactions on Power Systems*, **1995**, 10, 1389-1400	7	45
91	New Enhancements for the Exact Solution of the Vehicle Routing Problem with Time Windows. *INFORMS Journal on Computing*, **2017**, 29, 489-502	2.4	43
90	Simultaneous locomotive and car assignment at VIA Rail Canada. *Transportation Research Part B: Methodological*, **2001**, 35, 767-787	7.2	39
89	A branch-price-and-cut method for a ship routing and scheduling problem with split loads. *Computers and Operations Research*, **2012**, 39, 3361-3375	4.6	38
88	Including technology selection decisions in manufacturing network design models. *International Journal of Computer Integrated Manufacturing*, **2004**, 17, 117-125	4.3	35

87	Time constrained liner shipping network design. *Transportation Research, Part E: Logistics and Transportation Review*, **2017**, 105, 152-162	9	34
86	Path-Reduced Costs for Eliminating Arcs in Routing and Scheduling. *INFORMS Journal on Computing*, **2010**, 22, 297-313	2.4	33
85	Multi-phase dynamic constraint aggregation for set partitioning type problems. *Mathematical Programming*, **2010**, 123, 345-370	2.1	31
84	An extended branch-and-bound method for locomotive assignment. *Transportation Research Part B: Methodological*, **2006**, 40, 404-423	7.2	31
83	Branch-Price-and-Cut Algorithms for the Pickup and Delivery Problem with Time Windows and Last-in-First-Out Loading. *Transportation Science*, **2015**, 49, 752-766	4.4	30
82	An Improved Primal Simplex Algorithm for Degenerate Linear Programs. *INFORMS Journal on Computing*, **2011**, 23, 569-577	2.4	30
81	Periodic airline fleet assignment with time windows, spacing constraints, and time dependent revenues. *European Journal of Operational Research*, **2006**, 175, 1754-1766	5.6	30
80	On shortest paths for a car-like robot maneuvering around obstacles. *Robotics and Autonomous Systems*, **1996**, 17, 139-148	3.5	29
79	A new decomposition algorithm for a liquefied natural gas inventory routing problem. *International Journal of Production Research*, **2016**, 54, 564-578	7.8	28
78	The Shortest Path Problem with Time Windows and Linear Waiting Costs. *Transportation Science*, **2000**, 34, 312-319	4.4	27
77	An efficient algorithm to find a shortest path for a car-like robot. *IEEE Transactions on Automation Science and Engineering*, **1995**, 11, 819-828		27
76	Integrated Airline Crew Pairing and Crew Assignment by Dynamic Constraint Aggregation. *Transportation Science*, **2012**, 46, 39-55	4.4	25
75	Cutting planes for branch-and-price algorithms. *Networks*, **2011**, 58, 301-310	1.6	24
74	The vehicle routing problem with hard time windows and stochastic service times. *EURO Journal on Transportation and Logistics*, **2018**, 7, 223-251	2.4	23
73	Branch-price-and-cut algorithms for the pickup and delivery problem with time windows and multiple stacks. *European Journal of Operational Research*, **2016**, 250, 782-793	5.6	23
72	The pickup and delivery problem with time windows and handling operations. *Computers and Operations Research*, **2017**, 77, 127-140	4.6	22
71	Accelerating Strategies in Column Generation Methods for Vehicle Routing and Crew Scheduling Problems. *Operations Research/ Computer Science Interfaces Series*, **2002**, 309-324	0.3	22
70	Aircraft routing under different business processes. *Journal of Air Transport Management*, **2010**, 16, 258-263	3.63	21

69	Aircrew pairings with possible repetitions of the same flight number. *Computers and Operations Research*, **2013**, 40, 805-814	4.6	20
68	Integrated airline crew scheduling: A bi-dynamic constraint aggregation method using neighborhoods. *European Journal of Operational Research*, **2011**, 212, 445-454	5.6	20
67	Assigning multiple activities to work shifts. *Journal of Scheduling*, **2012**, 15, 239-251	1.6	19
66	A New Formulation Based on Customer Delivery Patterns for a Maritime Inventory Routing Problem. *Transportation Science*, **2015**, 49, 384-401	4.4	17
65	Recoverable robust single day aircraft maintenance routing problem. *Computers and Operations Research*, **2014**, 51, 130-145	4.6	17
64	Weekly airline fleet assignment with homogeneity. *Transportation Research Part B: Methodological*, **2006**, 40, 306-318	7.2	17
63	MILP Formulations for Generator Maintenance Scheduling in Hydropower Systems. *IEEE Transactions on Power Systems*, **2018**, 33, 6171-6180	7	16
62	Two decomposition algorithms for solving a minimum weight maximum clique model for the air conflict resolution problem. *European Journal of Operational Research*, **2017**, 256, 696-712	5.6	16
61	Bi-dynamic constraint aggregation and subproblem reduction. *Computers and Operations Research*, **2008**, 35, 1713-1724	4.6	16
60	Column generation for vehicle routing problems with multiple synchronization constraints. *European Journal of Operational Research*, **2019**, 272, 699-711	5.6	15
59	A branch-price-and-cut algorithm for the workover rig routing problem. *Computers and Operations Research*, **2012**, 39, 3305-3315	4.6	15
58	Efficient heuristics for the workover rig routing problem with a heterogeneous fleet and a finite horizon. *Journal of Heuristics*, **2014**, 20, 677-708	1.9	14
57	A two-stage heuristic for multi-activity and task assignment to work shifts. *Computers and Industrial Engineering*, **2012**, 63, 831-841	6.4	14
56	Crew Pairing for a Regional Carrier. *Lecture Notes in Economics and Mathematical Systems*, **1999**, 19-41	0.4	14
55	Multiple depot vehicle scheduling with controlled trip shifting. *Transportation Research Part B: Methodological*, **2018**, 113, 34-53	7.2	14
54	A new heuristic branching scheme for the crew pairing problem with base constraints. *Computers and Operations Research*, **2017**, 80, 159-172	4.6	13
53	Improving Air Crew Rostering by Considering Crew Preferences in the Crew Pairing Problem. *Transportation Science*, **2019**,	4.4	12
52	Managing large fixed costs in vehicle routing and crew scheduling problems solved by column generation. *Computers and Operations Research*, **2007**, 34, 1221-1239	4.6	12

51	Solving the Air Conflict Resolution Problem Under Uncertainty Using an Iterative Biobjective Mixed Integer Programming Approach. *Transportation Science*, **2017**, 51, 1242-1258	4.4	11
50	Reaching the elementary lower bound in the vehicle routing problem with time windows. *Networks*, **2015**, 65, 88-99	1.6	11
49	Stabilized dynamic constraint aggregation for solving set partitioning problems. *European Journal of Operational Research*, **2012**, 223, 360-371	5.6	11
48	Lower bounds and a tabu search algorithm for the minimum deficiency problem. *Journal of Combinatorial Optimization*, **2009**, 17, 168-191	0.9	11
47	Crew Scheduling in Air Transportation **1998**, 169-185		11
46	Creating annual delivery programs of liquefied natural gas. *Optimization and Engineering*, **2017**, 18, 299-316	3.6	10
45	Integrated Liner Shipping Network Design and Scheduling. *Transportation Science*, **2020**,	4.4	10
44	Minimizing the logistic ratio in the inventory routing problem. *EURO Journal on Transportation and Logistics*, **2017**, 6, 289-306	2.4	10
43	Heuristics for an oil delivery vehicle routing problem. *Flexible Services and Manufacturing Journal*, **2014**, 26, 516-539	1.8	10
42	Bidline scheduling with equity by heuristic dynamic constraint aggregation. *Transportation Research Part B: Methodological*, **2010**, 44, 50-61	7.2	10
41	The daily tail assignment problem under operational uncertainty using look-ahead maintenance constraints. *European Journal of Operational Research*, **2018**, 264, 534-547	5.6	9
40	Parking buses in a depot using block patterns: A Benders decomposition approach for minimizing type mismatches. *Computers and Operations Research*, **2007**, 34, 3362-3379	4.6	8
39	An Exact Solution Approach for the Preferential Bidding System Problem in the Airline Industry. *Transportation Science*, **2007**, 41, 354-365	4.4	8
38	Dispatching Buses in a Depot Using Block Patterns. *Transportation Science*, **2006**, 40, 364-377	4.4	8
37	A branch-and-price heuristic for the crew pairing problem with language constraints. *European Journal of Operational Research*, **2020**, 283, 1040-1054	5.6	8
36	A Matheuristic for the Liner Shipping Network Design Problem with Transit Time Restrictions. *Lecture Notes in Computer Science*, **2015**, 195-208	0.9	7
35	Variable Fixing for Two-Arc Sequences in Branch-Price-and-Cut Algorithms on Path-Based Models. *Transportation Science*, **2020**, 54, 1170-1188	4.4	6
34	Integral column generation for the set partitioning problem. *EURO Journal on Transportation and Logistics*, **2019**, 8, 713-744	2.4	6

33	A two-phase mathematical-programming heuristic for flexible assignment of activities and tasks to work shifts. *Journal of Scheduling*, **2013**, 16, 443-460	1.6	6
32	A branch-price-and-cut algorithm for the min-max k-vehicle windy rural postman problem. *Networks*, **2014**, 63, 34-45	1.6	6
31	Routing electric vehicles with a single recharge per route. *Networks*, **2020**, 76, 187-205	1.6	6
30	Daily course pattern formulation and valid inequalities for the curriculum-based course timetabling problem. *Journal of Scheduling*, **2019**, 22, 155-172	1.6	6
29	Accelerating Benders decomposition for short-term hydropower maintenance scheduling. *European Journal of Operational Research*, **2021**, 289, 240-253	5.6	6
28	A column generation heuristic for districting the price of a financial product. *Journal of the Operational Research Society*, **2015**, 66, 965-978	2	5
27	Clique Inequalities Applied to the Vehicle Routing Problem with Time Windows. *Infor*, **2010**, 48, 53-67	0.5	5
26	A two-stage solution approach for personalized multi-department multi-day shift scheduling. *European Journal of Operational Research*, **2020**, 280, 1051-1063	5.6	5
25	Separating valid odd-cycle and odd-set inequalities for the multiple depot vehicle scheduling problem. *EURO Journal on Computational Optimization*, **2013**, 1, 283-312	1.2	4
24	A Shortest Path Algorithm for a Carlike Robot in a Polygonal Environment. *International Journal of Robotics Research*, **1998**, 17, 512-530	5.7	3
23	Integrated and sequential solution methods for the cyclic bus driver rostering problem. *Journal of the Operational Research Society*, **2021**, 72, 764-779	2	3
22	Machine-Learning Based Column Selection for Column Generation. *Transportation Science*, **2021**, 55, 815-831	4.4	3
21	Selective pricing in branch-price-and-cut algorithms for vehicle routing. *EURO Journal on Transportation and Logistics*, **2019**, 8, 147-168	2.4	3
20	Real-time personnel re-scheduling after a minor disruption in the retail industry. *Computers and Operations Research*, **2020**, 120, 104952	4.6	3
19	Valid Inequalities and Separation Algorithms for the Set Partitioning Problem. *Infor*, **2014**, 52, 185-196	0.5	2
18	The Vehicle Routing Problem with Time Windows: State-of-the-Art Exact Solution Methods **2011**,		2
17	Parking buses in a depot with stochastic arrival times. *European Journal of Operational Research*, **2007**, 183, 502-515	5.6	2
16	Data Association via Set Packing for Computer Vision Applications. *INFORMS Journal on Optimization*, **2020**, 2, 167-191	1.6	2

15	Dynamic Constraint Aggregation for Solving Very Large-scale Airline Crew Pairing Problems. *SN Operations Research Forum*, **2020**, 1, 1	0.5	2
14	Preference-based and cyclic bus driver rostering problem with fixed days off. *Public Transport*, **2021**, 13, 251-286	2.1	2
13	Deep-learning-based partial pricing in a branch-and-price algorithm for personalized crew rostering. *Computers and Operations Research*, **2022**, 138, 105554	4.6	2
12	Linear fractional approximations for master problems in column generation. *Operations Research Letters*, **2017**, 45, 503-507	1	1
11	A rolling horizon solution approach for the airline crew pairing problem **2009**,		1
10	A Branch-Price-and-Cut Algorithm for the Two-Echelon Vehicle Routing Problem with Time Windows. *Transportation Science*, **2022**, 56, 245-264	4.4	1
9	Branch-Price-and-Cut Algorithms for the Vehicle Routing Problem with Stochastic and Correlated Travel Times. *Operations Research*, **2021**, 69, 436-455	2.3	1
8	Selective arc-ng pricing for vehicle routing. *International Transactions in Operational Research*, **2021**, 28, 2633-2690	2.9	0
7	Real-time bi-objective personnel re-scheduling in the retail industry. *European Journal of Operational Research*, **2021**, 293, 93-108	5.6	0
6	The joint network vehicle routing game with optional customers. *Computers and Operations Research*, **2021**, 133, 105375	4.6	0
5	Branch-and-cut-and-price for the Electric Vehicle Routing Problem with Time Windows, Piecewise-Linear Recharging and Capacitated Recharging Stations. *Computers and Operations Research*, **2022**, 105870	4.6	0
4	A New Variant of the Minimum-Weight Maximum-Cardinality Clique Problem to Solve Conflicts between Aircraft. *Advances in Intelligent Systems and Computing*, **2015**, 3-14	0.4	
3	Airline fleet assignment with internal passenger flow reevaluations. *EURO Journal on Transportation and Logistics*, **2014**, 3, 121-142	2.4	
2	Assigning Team Tasks and Multiple Activities to Fixed Work Shifts. *Infor*, **2013**, 51, 64-75	0.5	
1	The Inventory Routing Problem with Demand Moves. *SN Operations Research Forum*, **2021**, 2, 1	0.5	