Pascal Van Hentenryck

List of Publications by Year
in descending order

115	4,382	201575	133188
papers	citations	27 h-index	59 g-index

120	120	120	3212
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Spatio-Temporal Point Processes With Attention for Traffic Congestion Event Modeling. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 7298-7309.	4.7	9
2	Spatial Network Decomposition for Fast and Scalable AC-OPF Learning. IEEE Transactions on Power Systems, 2022, 37, 2601-2612.	4.6	16
3	Benders Subproblem Decomposition for Bilevel Problems with Convex Follower. INFORMS Journal on Computing, 2022, 34, 1749-1767.	1.0	5
4	Ridesharing and fleet sizing for On-Demand Multimodal Transit Systems. Transportation Research Part C: Emerging Technologies, 2022, 138, 103594.	3.9	8
5	Differentially Private Optimal Power Flow for Distribution Grids. IEEE Transactions on Power Systems, 2021, 36, 2186-2196.	4.6	20
6	<scp>Largeâ€scale</scp> zoneâ€based evacuation planning, Part <scp>II</scp>: Macroscopic and microscopic evaluations. Networks, 2021, 77, 341-358.	1.6	6
7	Largeâ€scale zoneâ€based evacuation planningâ€”Part I: Models and algorithms. Networks, 2021, 77, 127-145.	1.6	9
8	The benefits of autonomous vehicles for community-based trip sharing. Transportation Research Part C: Emerging Technologies, 2021, 124, 102929.	3.9	13
9	An exact and scalable problem decomposition for security-constrained optimal power flow. Electric Power Systems Research, 2021, 195, 106677.	2.1	9
10	Differential privacy of hierarchical Census data: An optimization approach. Artificial Intelligence, 2021, 296, 103475.	3.9	6
11	Combining Deep Learning and Optimization for Preventive Security-Constrained DC Optimal Power Flow. IEEE Transactions on Power Systems, 2021, 36, 3618-3628.	4.6	45
12	Market segmentation in online platforms. European Journal of Operational Research, 2021, 295, 1025-1041.	3.5	7
13	Lagrangian Duality for Constrained Deep Learning. Lecture Notes in Computer Science, 2021, , 118-135.	1.0	11
14	Resiliency of on-demand multimodal transit systems during a pandemic. Transportation Research Part C: Emerging Technologies, 2021, 133, 103418.	3.9	15
15	Optimization Models for Estimating Transit Network Originâ€“Destination Flows with Big Transit Data. Journal of Big Data Analytics in Transportation, 2021, 3, 247-262.	1.4	6
16	Privacy-Preserving Power System Obfuscation: A Bilevel Optimization Approach. IEEE Transactions on Power Systems, 2020, 35, 1627-1637.	4.6	22
17	Unit Commitment With Gas Network Awareness. IEEE Transactions on Power Systems, 2020, 35, 1327-1339.	4.6	31
18	Optimizing inspection routes in pipeline networks. Reliability Engineering and System Safety, 2020, 195, 106700.	5.1	8

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19	Differential Privacy for Power Grid Obfuscation. IEEE Transactions on Smart Grid, 2020, 11, 1356-1366.	6.2	32
20	The Commute Trip-Sharing Problem. Transportation Science, 2020, 54, 1640-1675.	2.6	8
21	Privacy-preserving obfuscation for distributed power systems. Electric Power Systems Research, 2020, 189, 106718.	2.1	10
22	The flexible and real-time commute trip sharing problems. Constraints, 2020, 25, 160-179.	0.4	1
23	Nutmeg: a MIP and CP Hybrid Solver Using Branch-and-Check. SN Operations Research Forum, 2020, 1, 1.	0.6	8
24	Predicting AC Optimal Power Flows: Combining Deep Learning and Lagrangian Dual Methods. Proceedings of the AAAI Conference on Artificial Intelligence, 2020, 34, 630-637.	3.6	72
25	Prediction and behavioral analysis of travel mode choice: A comparison of machine learning and logit models. Travel Behaviour & Society, 2020, 20, 22-35.	2.4	176
26	Joint Vehicle and Crew Routing and Scheduling. Transportation Science, 2020, 54, 488-511.	2.6	7
27	Transfer-Expanded Graphs for On-Demand Multimodal Transit Systems. Lecture Notes in Computer Science, 2020, , 167-175.	1.0	2
28	Bilevel Optimization for On-Demand Multimodal Transit Systems. Lecture Notes in Computer Science, 2020, , 52-68.	1.0	2
29	Differentially Private Distributed Optimal Power Flow. , 2020, , .		7
30	Guest Editorial Special Issue on Analysis, Control, and Optimization of Energy Networks. IEEE Transactions on Control of Network Systems, 2019, 6, 922-924.	2.4	2
31	Optimization of Structural Flood Mitigation Strategies. Water Resources Research, 2019, 55, 1490-1509.	1.7	10
32	Column Generation for Real-Time Ride-Sharing Operations. Lecture Notes in Computer Science, 2019, , 472-487.	1.0	10
33	Strengthening the SDP Relaxation of AC Power Flows With Convex Envelopes, Bound Tightening, and Valid Inequalities. , 2019, , .		0
34	Assortment optimization under the Sequential Multinomial Logit Model. European Journal of Operational Research, 2019, 273, 1052-1064.	3.5	34
35	Dynamic Compressor Optimization in Natural Gas Pipeline Systems. INFORMS Journal on Computing, 2019, 31, 40-65.	1.0	23
36	Benders Decomposition for the Design of a Hub and Shuttle Public Transit System. Transportation Science, 2019, 53, 77-88.	2.6	48

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37	Differential Privacy of Hierarchical Census Data: An Optimization Approach. Lecture Notes in Computer Science, 2019, , 639-655.	1.0	4
38	Popularity signals in trial-offer markets with social influence and position bias. European Journal of Operational Research, 2018, 266, 775-793.	3.5	8
39	Constraint-Based Local Search. , 2018, , 223-260.		3
40	Joint Electricity and Natural Gas Transmission Planning With Endogenous Market Feedbacks. IEEE Transactions on Power Systems, 2018, 33, 6397-6409.	4.6	42
41	Graphical Models and Belief Propagation Hierarchy for Physics-Constrained Network Flows. The IMA Volumes in Mathematics and Its Applications, 2018, , 223-250.	0.5	0
42	A microkernel architecture for constraint programming. Constraints, 2017, 22, 107-151.	0.4	6
43	Strengthening the SDP Relaxation of AC Power Flows With Convex Envelopes, Bound Tightening, and Valid Inequalities. IEEE Transactions on Power Systems, 2017, 32, 3549-3558.	4.6	74
44	A Column-Generation Algorithm for Evacuation Planning with Elementary Paths. Lecture Notes in Computer Science, 2017, , 549-564.	1.0	2
45	Taming the Unpredictability of Cultural Markets with Social Influence. , 2017, , .		12
46	A nonlinear optimization model for transient stable line switching. , 2017, , .		0
47	Graphical models for optimal power flow. Constraints, 2017, 22, 24-49.	0.4	14
48	Convex quadratic relaxations for mixed-integer nonlinear programs in power systems. Mathematical Programming Computation, 2017, 9, 321-367.	3.2	103
49	Transient dynamics in trial-offer markets with social influence: Trade-offs between appeal and quality. PLoS ONE, 2017, 12, e0180040.	1.1	2
50	Branch-and-Check with Explanations for the Vehicle Routing Problem with Time Windows. Lecture Notes in Computer Science, 2017, , 579-595.	1.0	2
51	Constraint-Based Local Search. , 2017, , 1-38.		58
52	Efficient dynamic compressor optimization in natural gas transmission systems. , 2016, , .		17
53	Convex Relaxations for Gas Expansion Planning. INFORMS Journal on Computing, 2016, 28, 645-656.	1.0	104
54	New developments in metaheuristics and their applications. Journal of Heuristics, 2016, 22, 359-363.	1.1	6

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55	Polynomial SDP cuts for Optimal Power Flow. , 2016, , .		18
56	Rapid assessment of disaster damage using social media activity. Science Advances, 2016, 2, e1500779.	4.7	431
57	Network flow and copper plate relaxations for AC transmission systems. , 2016, , .		16
58	Optimal Resilient transmission Grid Design. , 2016, , .		33
59	Parallel Composition of Scheduling Solvers. Lecture Notes in Computer Science, 2016, , 159-169.	1.0	3
60	Assortment optimization under a multinomial logit model with position bias and social influence. 4or, 2016, 14, 57-75.	1.0	32
61	A branch-and-price-and-check model for the vehicle routing problem with location congestion. Constraints, 2016, 21, 394-412.	0.4	25
62	A conflict-based path-generation heuristic for evacuation planning. Transportation Research Part B: Methodological, 2016, 83, 136-150.	2.8	53
63	The QC Relaxation: A Theoretical and Computational Study on Optimal Power Flow. IEEE Transactions on Power Systems, 2016, 31, 3008-3018.	4.6	220
64	AC-Feasibility on Tree Networks is NP-Hard. IEEE Transactions on Power Systems, 2016, 31, 798-801.	4.6	141
65	Performance of Social Network Sensors during Hurricane Sandy. PLoS ONE, 2015, 10, e0117288.	1.1	100
66	Transmission system restoration with co-optimization of repairs, load pickups, and generation dispatch. International Journal of Electrical Power and Energy Systems, 2015, 72, 144-154.	3.3	46
67	A column-generation approach for joint mobilization and evacuation planning. Constraints, 2015, 20, 285-303.	0.4	17
68	Transmission system repair and restoration. Mathematical Programming, 2015, 151, 347-373.	1.6	43
69	A Multistage Very Large-Scale Neighborhood Search for the Vehicle Routing Problem with Soft Time Windows. Transportation Science, 2015, 49, 223-238.	2.6	24
70	Joint Vehicle and Crew Routing and Scheduling. Lecture Notes in Computer Science, 2015, , 654-670.	1.0	7
71	Strengthening Convex Relaxations with Bound Tightening for Power Network Optimization. Lecture Notes in Computer Science, 2015, , 39-57.	1.0	32
72	A Constraint Programming Approach for Non-preemptive Evacuation Scheduling. Lecture Notes in Computer Science, 2015, , 574-591.	1.0	2

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73	The Benefits of Social Influence in Optimized Cultural Markets. PLoS ONE, 2015, 10, e0121934.	1.1	18
74	Power system restoration planning with standing phase angle and voltage difference constraints. , 2014, , .		11
75	Transmission Network Expansion Planning: Bridging the gap between AC heuristics and DC approximations. , 2014, , .		21
76	Crowdsourcing contest dilemma. Journal of the Royal Society Interface, 2014, 11, 20140532.	1.5	22
77	Primal and dual bounds for Optimal Transmission Switching. , 2014, , .		23
78	The future of optimization technology. Constraints, 2014, 19, 126-138.	0.4	11
79	A Linear-Programming Approximation of AC Power Flows. INFORMS Journal on Computing, 2014, 26, 718-734.	1.0	210
80	Optimal and efficient filtering algorithms for table constraints. Constraints, 2014, 19, 77-120.	0.4	10
81	Looking into the crystal-ball: a bright future for CP. Constraints, 2014, 19, 121-125.	0.4	0
82	A Path-Generation Matheuristic for Large Scale Evacuation Planning. Lecture Notes in Computer Science, 2014, , 71-84.	1.0	8
83	Domain consistency with forbidden values. Constraints, 2013, 18, 377-403.	0.4	0
84	The Objective-CP Optimization System. Lecture Notes in Computer Science, 2013, , 8-29.	1.0	13
85	LS(Graph): a constraint-based local search for constraint optimization on trees and paths. Constraints, 2012, 17, 357-408.	0.4	10
86	Approximating line losses and apparent power in AC power flow linearizations. , 2012, , .		45
87	Accurate load and generation scheduling for linearized DC models with contingencies. , 2012, , .		12
88	Constraint-based Very Large-Scale Neighborhood search. Constraints, 2012, 17, 87-122.	0.4	12
89	An Optimal Filtering Algorithm for Table Constraints. Lecture Notes in Computer Science, 2012, , 496-511.	1.0	8
90	Constraint Satisfaction over Bit-Vectors. Lecture Notes in Computer Science, 2012, , 527-543.	1.0	18

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91	Solving Steel Mill Slab Problems with constraint-based techniques: CP, LNS, and CBLS. Constraints, 2011, 16, 125-147.	0.4	18
92	Optimal deployment ofÂeventually-serializable data services. Annals of Operations Research, 2011, 184, 273-294.	2.6	2
93	An anytime multistep anticipatory algorithm for online stochastic combinatorial optimization. Annals of Operations Research, 2011, 184, 233-271.	2.6	12
94	On Lattice Protein Structure Prediction Revisited. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2011, 8, 1620-1632.	1.9	54
95	Strategic stockpiling of power system supplies for disaster recovery. , 2011, , .		28
96	CPBPV: a constraint-programming framework for bounded program verification. Constraints, 2010, 15, 238-264.	0.4	23
97	Computing folding pathways between RNA secondary structures. Nucleic Acids Research, 2010, 38, 1711-1722.	6.5	35
98	Constraint-Based Local Search for Constrained Optimum Paths Problems. Lecture Notes in Computer Science, 2010, , 267-281.	1.0	8
99	Domain Consistency with Forbidden Values. Lecture Notes in Computer Science, 2010, , 191-205.	1.0	3
100	Online stochastic reservation systems. Annals of Operations Research, 2009, 171, 101-126.	2.6	9
101	Dynamic structural symmetry breaking for constraint satisfaction problems. Constraints, 2009, 14, 506-538.	0.4	9
102	RNA STRUCTURAL SEGMENTATION. , 2009, , 57-68.		4
103	Compositional Derivation of Symmetries for Constraint Satisfaction. Lecture Notes in Computer Science, 2005, , 234-247.	1.0	8
104	Online Stochastic and Robust Optimization. Lecture Notes in Computer Science, 2004, , 286-300.	1.0	17
105	Scenario-Based Planning for Partially Dynamic Vehicle Routing with Stochastic Customers. Operations Research, 2004, 52, 977-987.	1.2	359
106	A Two-Stage Hybrid Local Search for the Vehicle Routing Problem with Time Windows. Transportation Science, 2004, 38, 515-530.	2.6	250
107	Constraint and Integer Programming in OPL. INFORMS Journal on Computing, 2002, 14, 345-372.	1.0	57
108	Sequence-based abstract interpretation of Prolog. Theory and Practice of Logic Programming, 2002, 2, 25-84.	1.1	8

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109	Search and strategies in OPL. ACM Transactions on Computational Logic, 2000, 1, 285-320.	0.7	50
110	Numerica. , 1997, , .		159
111	Strategic directions in constraint programming. ACM Computing Surveys, 1996, 28, 701-726.	16.1	71
112	Constraint programming for combinatorial search problems. ACM Computing Surveys, 1996, 28, 76.	16.1	7
113	Backtracking without trailing in CLP (â„œ Lin). ACM Transactions on Programming Languages and Systems, 1995, 17, 635-671.	1.7	8
114	A generic arc-consistency algorithm and its specializations. Artificial Intelligence, 1992, 57, 291-321.	3.9	292
115	Communication-Constrained Expansion Planning for Resilient Distribution Systems. INFORMS Journal on Computing, 0, , .	1.0	6