

# Alexander Martin

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

63

papers

1,631

citations

21

h-index

39

g-index

67

ext. papers

1,860

ext. citations

2

avg, IF

4.6

L-index

#	Paper	IF	Citations
63	Efficient Formulations and Decomposition Approaches for Power Peak Reduction in Railway Traffic via Timetabling. <i>Transportation Science</i> , <b>2021</b> , 55, 747-767	4.4	4
62	Solving mixed-integer nonlinear optimization problems using simultaneous convexification: a case study for gas networks. <i>Journal of Global Optimization</i> , <b>2021</b> , 80, 307-340	1.5	1
61	Energy-Efficient Timetabling in a German Underground System. <i>Mathematics in Industry</i> , <b>2021</b> , 105-112	0.2	
60	Two-row and two-column mixed-integer presolve using hashing-based pairing methods. <i>EURO Journal on Computational Optimization</i> , <b>2020</b> , 8, 205-240	1.2	3
59	Maximizing the storage capacity of gas networks: a global MINLP approach. <i>Optimization and Engineering</i> , <b>2019</b> , 20, 543-573	2.1	7
58	MIP-based instantaneous control of mixed-integer PDE-constrained gas transport problems. <i>Computational Optimization and Applications</i> , <b>2018</b> , 70, 267-294	1.4	25
57	Towards simulation based mixed-integer optimization with differential equations. <i>Networks</i> , <b>2018</b> , 72, 60-83	1.6	9
56	Market-Based Redispatch May Result in Inefficient Dispatch. <i>SSRN Electronic Journal</i> , <b>2018</b> ,	1	5
55	A Decomposition Method for Multiperiod Railway Network Expansion With a Case Study for Germany. <i>Transportation Science</i> , <b>2017</b> , 51, 1102-1121	4.4	9
54	A comparison of performance metrics for balancing the power consumption of trains in a railway network by slight timetable adaptation. <i>Public Transport</i> , <b>2017</b> , 9, 95-113	2.1	7
53	Pricing and clearing combinatorial markets with singleton and swap orders. <i>Mathematical Methods of Operations Research</i> , <b>2017</b> , 85, 155-177	1	2
52	Challenges in Optimal Control Problems for Gas and Fluid Flow in Networks of Pipes and Canals: From Modeling to Industrial Applications. <i>Industrial and Applied Mathematics</i> , <b>2017</b> , 77-122	0.3	15
51	Transmission and generation investment in electricity markets: The effects of market splitting and network fee regimes. <i>European Journal of Operational Research</i> , <b>2016</b> , 254, 493-509	5.6	74
50	On the long run effects of market splitting: Why more price zones might decrease welfare. <i>Energy Policy</i> , <b>2016</b> , 94, 453-467	7.2	31
49	Polyhedral approximation of ellipsoidal uncertainty sets via extended formulations: a computational case study. <i>Computational Management Science</i> , <b>2016</b> , 13, 151-193	1	3
48	Robust runway scheduling under uncertain conditions. <i>Journal of Air Transport Management</i> , <b>2016</b> , 56, 28-37	5.1	19
47	Binary Steiner trees: Structural results and an exact solution approach. <i>Discrete Optimization</i> , <b>2016</b> , 21, 85-117	1	4

46	Progress in presolving for mixed integer programming. <i>Mathematical Programming Computation</i> , <b>2015</b> , 7, 367-398	7.8	21
45	Solving network design problems via iterative aggregation. <i>Mathematical Programming Computation</i> , <b>2015</b> , 7, 189-217	7.8	6
44	Chapter 6: The MILP-relaxation approach <b>2015</b> , 103-122		14
43	Validation of nominations in gas network optimization: models, methods, and solutions. <i>Optimization Methods and Software</i> , <b>2015</b> , 30, 15-53	1.3	63
42	Strict linear prices in non-convex European day-ahead electricity markets. <i>Optimization Methods and Software</i> , <b>2014</b> , 29, 189-221	1.3	29
41	Mathematical optimization for challenging network planning problems in unbundled liberalized gas markets. <i>Energy Systems</i> , <b>2014</b> , 5, 449-473	1.7	26
40	How Many Steiner Terminals Can You Connect in 20 Years? <b>2013</b> , 215-244		3
39	Progress in Academic Computational Integer Programming <b>2013</b> , 483-506		6
38	Mathematical Models and Polyhedral Studies for Integral Sheet Metal Design. <i>SIAM Journal on Optimization</i> , <b>2012</b> , 22, 1493-1517	2	
37	LP and SDP branch-and-cut algorithms for the minimum graph bisection problem: a computational comparison. <i>Mathematical Programming Computation</i> , <b>2012</b> , 4, 275-306	7.8	14
36	Mixed Integer Optimization of Water Supply Networks. <i>International Series of Numerical Mathematics</i> , <b>2012</b> , 35-54	0.4	19
35	Nonlinear and Mixed Integer Linear Programming. <i>International Series of Numerical Mathematics</i> , <b>2012</b> , 55-65	0.4	
34	Using Piecewise Linear Functions for Solving MINLPs. <i>The IMA Volumes in Mathematics and Its Applications</i> , <b>2012</b> , 287-314	0.5	60
33	Mixed integer linear models for the optimization of dynamical transport networks. <i>Mathematical Methods of Operations Research</i> , <b>2011</b> , 73, 339-362	1	27
32	Combination of Nonlinear and Linear Optimization of Transient Gas Networks. <i>INFORMS Journal on Computing</i> , <b>2011</b> , 23, 605-617	2.4	50
31	Quantified Linear Programs: A Computational Study. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 203-214	0.9	10
30	A mixed integer approach for time-dependent gas network optimization. <i>Optimization Methods and Software</i> , <b>2010</b> , 25, 625-644	1.3	32
29	Topology and Dynamic Networks: Optimization with Application in Future Technologies <b>2010</b> , 263-276		

28	Efficient reformulation and solution of a nonlinear PDE-controlled flow network model. <i>Computing (Vienna/New York)</i> , <b>2009</b> , 85, 245-265	2.2	8
27	Topologie und Dynamische Netzwerke: Anwendungen Der Optimierung MIT Zukunft <b>2009</b> , 323-338		
26	On the Graph Bisection Cut Polytope. <i>SIAM Journal on Discrete Mathematics</i> , <b>2008</b> , 22, 1073-1098	0.7	5
25	Scheduling Locomotives and Car Transfers in Freight Transport. <i>Transportation Science</i> , <b>2008</b> , 42, 478-494	4.4	9
24	A Comparative Study of Linear and Semidefinite Branch-and-Cut Methods for Solving the Minimum Graph Bisection Problem <b>2008</b> , 112-124		11
23	A simulated annealing algorithm for transient optimization in gas networks. <i>Mathematical Methods of Operations Research</i> , <b>2007</b> , 66, 99-115	1	35
22	Combinatorial and Continuous Models for the Optimization of Traffic Flows on Networks. <i>SIAM Journal on Optimization</i> , <b>2006</b> , 16, 1155-1176	2	38
21	MIPLIB 2003. <i>Operations Research Letters</i> , <b>2006</b> , 34, 361-372	1	120
20	A multicriteria approach for optimizing bus schedules and school starting times. <i>Annals of Operations Research</i> , <b>2006</b> , 147, 199-216	3.2	6
19	Mixed Integer Models for the Stationary Case of Gas Network Optimization. <i>Mathematical Programming</i> , <b>2006</b> , 105, 563-582	2.1	159
18	UMTS radio network evaluation and optimization beyond snapshots. <i>Mathematical Methods of Operations Research</i> , <b>2006</b> , 63, 1-29	1	23
17	Hybrid Genetic Algorithm Within Branch-and-Cut for the Minimum Graph Bisection Problem. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 1-12	0.9	5
16	Computational Integer Programming and Cutting Planes. <i>Handbooks in Operations Research and Management Science</i> , <b>2005</b> , 12, 69-121		17
15	Branching rules revisited. <i>Operations Research Letters</i> , <b>2005</b> , 33, 42-54	1	255
14	Cutting Planes for the Optimisation of Gas Networks <b>2005</b> , 307-329		3
13	Optimisation Methods for UMTS Radio Network Planning. <i>Operations Research Proceedings: Papers of the Annual Meeting = Vorträge Der Jahrestagung / DGOR</i> , <b>2004</b> , 31-38	0.1	5
12	Cutting planes in integer and mixed integer programming. <i>Discrete Applied Mathematics</i> , <b>2002</b> , 123, 397-446		117
11	General Mixed Integer Programming: Computational Issues for Branch-and-Cut Algorithms. <i>Lecture Notes in Computer Science</i> , <b>2001</b> , 1-25	0.9	18

10	Parallelizing the Dual Simplex Method. <i>INFORMS Journal on Computing</i> , <b>2000</b> , 12, 45-56	2.4	20
9	Routing Through Virtual Paths in Layered Telecommunication Networks. <i>Operations Research</i> , <b>1999</b> , 47, 693-702	2.3	30
8	Decomposing Matrices into Blocks. <i>SIAM Journal on Optimization</i> , <b>1998</b> , 9, 236-269	2	45
7	The Intersection of Knapsack Polyhedra and Extensions. <i>Lecture Notes in Computer Science</i> , <b>1998</b> , 243-256.	0.9	6
6	Solving Multiple Knapsack Problems by Cutting Planes. <i>SIAM Journal on Optimization</i> , <b>1996</b> , 6, 858-877	2	50
5	Packing Steiner Trees: Separation Algorithms. <i>SIAM Journal on Discrete Mathematics</i> , <b>1996</b> , 9, 233-257	0.7	15
4	Routing in grid graphs by cutting planes. <i>Zeitschrift Fuer Operations-Research, Serie B: Praxis</i> , <b>1995</b> , 41, 255-275		2
3	Quadratic 0/1 optimization and a decomposition approach for the placement of electronic circuits. <i>Mathematical Programming</i> , <b>1994</b> , 63, 257-279	2.1	27
2	Some integer programs arising in the design of main frame computers. <i>Zeitschrift Fuer Operations-Research, Serie B: Praxis</i> , <b>1993</b> , 38, 77-100		4
1	Transient gas pipeline flow: analytical examples, numerical simulation and a comparison to the quasi-static approach. <i>Optimization and Engineering</i> , 1	2.1	