Eduardo Uchoa

List of Publications by Year
in descending order

74 papers	2,967 citations	218677 26 h-index	175258 52 g-index
77 all docs	77 docs citations	77 times ranked	1883 citing authors

#	Article	IF	Citations
1	Robust Branch-and-Cut-and-Price for the Capacitated Vehicle Routing Problem. Mathematical Programming, 2006, 106, 491-511.	2.4	366
2	New benchmark instances for the Capacitated Vehicle Routing Problem. European Journal of Operational Research, 2017, 257, 845-858.	5.7	251
3	A hybrid algorithm for a class of vehicle routing problems. Computers and Operations Research, 2013, 40, 2519-2531.	4.0	194
4	Improved branch-cut-and-price for capacitated vehicle routing. Mathematical Programming Computation, 2017, 9, 61-100.	4.8	138
5	Solving capacitated arc routing problems using a transformation to the CVRP. Computers and Operations Research, 2006, 33, 1823-1837.	4.0	133
6	A Hybrid GRASP with Perturbations for the Steiner Problem in Graphs. INFORMS Journal on Computing, 2002, 14, 228-246.	1.7	125
7	A hybrid algorithm for the Heterogeneous Fleet Vehicle Routing Problem. European Journal of Operational Research, 2012, 221, 285-295.	5.7	120
8	New Enhancements for the Exact Solution of the Vehicle Routing Problem with Time Windows. INFORMS Journal on Computing, 2017, 29, 489-502.	1.7	87
9	Exact algorithm over an arc-time-indexed formulation for parallel machine scheduling problems. Mathematical Programming Computation, 2010, 2, 259-290.	4.8	82
10	A generic exact solver for vehicle routing and related problems. Mathematical Programming, 2020, 183, 483-523.	2.4	82
11	Modeling hop-constrained and diameter-constrained minimum spanning tree problems as Steiner tree problems over layered graphs. Mathematical Programming, 2011, 128, 123-148.	2.4	81
12	Branch-and-cut with lazy separation for the vehicle routing problem with simultaneous pickup and delivery. Operations Research Letters, 2011, 39, 338-341.	0.7	70
13	Automation and Combination of Linear-Programming Based Stabilization Techniques in Column Generation. INFORMS Journal on Computing, 2018, 30, 339-360.	1.7	63
14	The time dependent traveling salesman problem: polyhedra and algorithm. Mathematical Programming Computation, 2013, 5, 27-55.	4.8	60
15	Branch-cut-and-price for the vehicle routing problem with simultaneous pickup and delivery. Optimization Letters, 2013, 7, 1569-1581.	1.6	59
16	Primal Heuristics for Branch and Price: The Assets of Diving Methods. INFORMS Journal on Computing, 2019, 31, 251-267.	1.7	52
17	A robust branchâ€cutâ€andâ€price algorithm for the heterogeneous fleet vehicle routing problem. Networks, 2009, 54, 167-177.	2.7	51
18	Robust branch-cut-and-price for the Capacitated Minimum Spanning Tree problem over a large extended formulation. Mathematical Programming, 2008, 112, 443-472.	2.4	46

#	Article	IF	Citations
19	Strong bounds with cut and column generation forÂclass-teacher timetabling. Annals of Operations Research, 2012, 194, 399-412.	4.1	44
20	Enhanced Branch-Cut-and-Price algorithm for heterogeneous fleet vehicle routing problems. European Journal of Operational Research, 2018, 270, 530-543.	5.7	38
21	A branch-and-price algorithm for the Minimum Latency Problem. Computers and Operations Research, 2018, 93, 66-78.	4.0	38
22	A Bucket Graphâ€"Based Labeling Algorithm with Application to Vehicle Routing. Transportation Science, 2021, 55, 4-28.	4.4	37
23	Robust Branch-Cut-and-Price Algorithms for Vehicle Routing Problems. Operations Research/ Computer Science Interfaces Series, 2008, , 297-325.	0.3	33
24	Improved lower bounds for the Split Delivery Vehicle Routing Problem. Operations Research Letters, 2010, 38, 302-306.	0.7	33
25	Chapter 3: New Exact Algorithms for the Capacitated Vehicle Routing Problem. , 2014, , 59-86.		32
26	Exact algorithms for the traveling salesman problem with draft limits. European Journal of Operational Research, 2014, 235, 115-128.	5.7	29
27	A facility location and installation of resources model for level of repair analysis. European Journal of Operational Research, 2009, 192, 479-486.	5.7	28
28	Optimizing Helicopter Transport of Oil Rig Crews at Petrobras. Interfaces, 2010, 40, 408-416.	1.5	28
29	Limited memory Rank-1 Cuts for Vehicle Routing Problems. Operations Research Letters, 2017, 45, 206-209.	0.7	27
30	Dual Heuristics on the Exact Solution of Large Steiner Problems. Electronic Notes in Discrete Mathematics, 2001, 7, 150-153.	0.4	25
31	Preprocessing Steiner problems from VLSI layout. Networks, 2002, 40, 38-50.	2.7	25
32	A POPMUSIC matheuristic for the capacitated vehicle routing problem. Computers and Operations Research, 2021, 136, 105475.	4.0	24
33	A robust and scalable algorithm for the Steiner problem in graphs. Mathematical Programming Computation, 2018, 10, 69-118.	4.8	23
34	Solving the Freight Car Flow Problem to Optimality. Electronic Notes in Theoretical Computer Science, 2002, 66, 42-52.	0.9	22
35	Reduction tests for the prize-collecting Steiner problem. Operations Research Letters, 2006, 34, 437-444.	0.7	22
36	Solving Replica Placement and Request Distribution in Content Distribution Networks. Electronic Notes in Discrete Mathematics, 2010, 36, 89-96.	0.4	22

#	Article	IF	Citations
37	A GRASP-based approach to the generalized minimum spanning tree problem. Expert Systems With Applications, 2012, 39, 3526-3536.	7.6	22
38	Robust Branch-and-Cut-and-Price for the Capacitated Vehicle Routing Problem. Lecture Notes in Computer Science, 2004, , 1-15.	1.3	21
39	Formulations for a problem of petroleum transportation. European Journal of Operational Research, 2014, 237, 82-90.	5.7	21
40	Improved Branch-Cut-and-Price for Capacitated Vehicle Routing. Lecture Notes in Computer Science, 2014, , 393-403.	1.3	20
41	Improved state space relaxation for constrained two-dimensional guillotine cutting problems. European Journal of Operational Research, 2019, 272, 106-120.	5.7	17
42	A Robust Branch-Cut-and-Price Algorithm for the Heterogeneous Fleet Vehicle Routing Problem. , 2007, , 150-160.		16
43	New Lower Bounds for the Vehicle Routing Problem with Simultaneous Pickup and Delivery. Lecture Notes in Computer Science, 2010, , 276-287.	1.3	16
44	A column generation approach for power-aware optimization of virtualized heterogeneous server clusters. Computers and Industrial Engineering, 2012, 63, 652-662.	6.3	14
45	Hop–level flow formulation for the survivable network design with hop constraints problem. Networks, 2013, 61, 171-179.	2.7	14
46	A grid-enabled distributed branch-and-bound algorithm with application on the Steiner Problem in graphs. Parallel Computing, 2006, 32, 629-642.	2.1	13
47	A distributed dual ascent algorithm for the Hop-constrained Steiner Tree Problem. Operations Research Letters, 2010, 38, 57-62.	0.7	13
48	In-Out Separation and Column Generation Stabilization by Dual Price Smoothing. Lecture Notes in Computer Science, 2013, , 354-365.	1.3	13
49	A Generic Exact Solver for Vehicle Routing and Related Problems. Lecture Notes in Computer Science, 2019, , 354-369.	1.3	12
50	A distributed dual ascent algorithm for Steiner problems in multicast routing. Networks, 2009, 53, 170-183.	2.7	11
51	Unsplittable non-additive capacitated network design using set functions polyhedra. Computers and Operations Research, 2016, 66, 105-115.	4.0	11
52	Comparative Analysis of Capacitated Arc Routing Formulations for Designing a New Branch-Cut-and-Price Algorithm. Transportation Science, 2019, 53, 1673-1694.	4.4	11
53	On the exact solution of vehicle routing problems with backhauls. European Journal of Operational Research, 2020, 287, 76-89.	5.7	10
54	Fast local search for the steiner problem in graphs. Journal of Experimental Algorithmics, 2012, 17, .	1.0	8

#	Article	IF	Citations
55	On the exact solution of a large class of parallel machine scheduling problems. Journal of Scheduling, 2020, 23, 411-429.	1.9	8
56	New Benchmark Instances for The Steiner Problem in Graphs. Applied Optimization, 2003, , 601-614.	0.4	8
57	The Î³-connected assignment problem. European Journal of Operational Research, 1999, 118, 127-138.	5.7	7
58	Column generation approaches for the software clustering problem. Computational Optimization and Applications, 2016, 64, 843-864.	1.6	7
59	On the complete set packing and set partitioning polytopes: Properties and rank 1 facets. Operations Research Letters, 2018, 46, 389-392.	0.7	6
60	The Time Dependent Traveling Salesman Problem: Polyhedra and Branch-Cut-and-Price Algorithm. Lecture Notes in Computer Science, 2010, , 202-213.	1.3	5
61	Branchâ€andâ€cut and hybrid local search for the multiâ€level capacitated minimum spanning tree problem. Networks, 2012, 59, 148-160.	2.7	5
62	A branch-cut-and-price algorithm for the cumulative capacitated vehicle routing problem. 4or, 2023, 21, 47-71.	1.6	5
63	Capacitated Multi-Layer Network Design with Unsplittable Demands: Polyhedra and Branch-and-Cut. Discrete Optimization, 2020, 35, 100555.	0.9	4
64	Solving Bin Packing Problems Using VRPSolver Models. SN Operations Research Forum, 2021, 2, .	1.0	4
65	Distance Transformation for Network Design Problems. SIAM Journal on Optimization, 2019, 29, 1687-1713.	2.0	3
66	Vertex-Disjoint Packing of Two Steiner Trees: Polyhedra and Branch-and-Cut. Lecture Notes in Computer Science, 1999, , 439-452.	1.3	3
67	A branch-cut-and-price algorithm for the traveling salesperson problem with hotel selection. Computers and Operations Research, 2020, 123, 104986.	4.0	3
68	Vertex-Disjoint Packing of Two Steiner Trees: polyhedra and branch-and-cut. Mathematical Programming, 2001, 90, 537-557.	2.4	2
69	Capacitated Network Design using Bin-Packing. Electronic Notes in Discrete Mathematics, 2013, 41, 479-486.	0.4	1
70	A hybrid genetic algorithm with local search approach for E/T scheduling problems on identical parallel machines. , 2013, , .		1
71	COLUMN GENERATION BASED ALGORITHMS FOR THE CAPACITATED MULTI-LAYER NETWORK DESIGN WITH UNSPLITTABLE DEMANDS. Pesquisa Operacional, 2017, 37, 545-570.	0.4	1
72	Hop-Level Flow Formulation for the Hop Constrained Survivable Network Design Problem. Lecture Notes in Computer Science, 2011, , 176-181.	1.3	1

#	Article	IF	Citations
73	THE GUIDE TO NP-COMPLETENESS IS 40 YEARS OLD: AN HOMAGE TO DAVID S. JOHNSON. Pesquisa Operacional, 0, 40, .	0.4	0
74	A Distributed Primal-Dual Heuristic for Steiner Problems in Networks. , 2007, , 175-188.		0