

# Eduardo Uchoa

## List of Publications by Year in descending order

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74  
papers

2,967  
citations

218381

26  
h-index

174990

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. <i>Mathematical Programming</i> , 2006, 106, 491-511.	1.6	366
2	New benchmark instances for the Capacitated Vehicle Routing Problem. <i>European Journal of Operational Research</i> , 2017, 257, 845-858.	3.5	251
3	A hybrid algorithm for a class of vehicle routing problems. <i>Computers and Operations Research</i> , 2013, 40, 2519-2531.	2.4	194
4	Improved branch-cut-and-price for capacitated vehicle routing. <i>Mathematical Programming Computation</i> , 2017, 9, 61-100.	3.2	138
5	Solving capacitated arc routing problems using a transformation to the CVRP. <i>Computers and Operations Research</i> , 2006, 33, 1823-1837.	2.4	133
6	A Hybrid GRASP with Perturbations for the Steiner Problem in Graphs. <i>INFORMS Journal on Computing</i> , 2002, 14, 228-246.	1.0	125
7	A hybrid algorithm for the Heterogeneous Fleet Vehicle Routing Problem. <i>European Journal of Operational Research</i> , 2012, 221, 285-295.	3.5	120
8	New Enhancements for the Exact Solution of the Vehicle Routing Problem with Time Windows. <i>INFORMS Journal on Computing</i> , 2017, 29, 489-502.	1.0	87
9	Exact algorithm over an arc-time-indexed formulation for parallel machine scheduling problems. <i>Mathematical Programming Computation</i> , 2010, 2, 259-290.	3.2	82
10	A generic exact solver for vehicle routing and related problems. <i>Mathematical Programming</i> , 2020, 183, 483-523.	1.6	82
11	Modeling hop-constrained and diameter-constrained minimum spanning tree problems as Steiner tree problems over layered graphs. <i>Mathematical Programming</i> , 2011, 128, 123-148.	1.6	81
12	Branch-and-cut with lazy separation for the vehicle routing problem with simultaneous pickup and delivery. <i>Operations Research Letters</i> , 2011, 39, 338-341.	0.5	70
13	Automation and Combination of Linear-Programming Based Stabilization Techniques in Column Generation. <i>INFORMS Journal on Computing</i> , 2018, 30, 339-360.	1.0	63
14	The time dependent traveling salesman problem: polyhedra and algorithm. <i>Mathematical Programming Computation</i> , 2013, 5, 27-55.	3.2	60
15	Branch-cut-and-price for the vehicle routing problem with simultaneous pickup and delivery. <i>Optimization Letters</i> , 2013, 7, 1569-1581.	0.9	59
16	Primal Heuristics for Branch and Price: The Assets of Diving Methods. <i>INFORMS Journal on Computing</i> , 2019, 31, 251-267.	1.0	52
17	A robust branch-and-price algorithm for the heterogeneous fleet vehicle routing problem. <i>Networks</i> , 2009, 54, 167-177.	1.6	51
18	Robust branch-cut-and-price for the Capacitated Minimum Spanning Tree problem over a large extended formulation. <i>Mathematical Programming</i> , 2008, 112, 443-472.	1.6	46

#	ARTICLE	IF	CITATIONS
19	Strong bounds with cut and column generation for a class-teacher timetabling. <i>Annals of Operations Research</i> , 2012, 194, 399-412.	2.6	44
20	Enhanced Branch-Cut-and-Price algorithm for heterogeneous fleet vehicle routing problems. <i>European Journal of Operational Research</i> , 2018, 270, 530-543.	3.5	38
21	A branch-and-price algorithm for the Minimum Latency Problem. <i>Computers and Operations Research</i> , 2018, 93, 66-78.	2.4	38
22	A Bucket Graph-Based Labeling Algorithm with Application to Vehicle Routing. <i>Transportation Science</i> , 2021, 55, 4-28.	2.6	37
23	Robust Branch-Cut-and-Price Algorithms for Vehicle Routing Problems. <i>Operations Research/Computer Science Interfaces Series</i> , 2008, , 297-325.	0.3	33
24	Improved lower bounds for the Split Delivery Vehicle Routing Problem. <i>Operations Research Letters</i> , 2010, 38, 302-306.	0.5	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. <i>European Journal of Operational Research</i> , 2014, 235, 115-128.	3.5	29
27	A facility location and installation of resources model for level of repair analysis. <i>European Journal of Operational Research</i> , 2009, 192, 479-486.	3.5	28
28	Optimizing Helicopter Transport of Oil Rig Crews at Petrobras. <i>Interfaces</i> , 2010, 40, 408-416.	1.6	28
29	Limited memory Rank-1 Cuts for Vehicle Routing Problems. <i>Operations Research Letters</i> , 2017, 45, 206-209.	0.5	27
30	Dual Heuristics on the Exact Solution of Large Steiner Problems. <i>Electronic Notes in Discrete Mathematics</i> , 2001, 7, 150-153.	0.4	25
31	Preprocessing Steiner problems from VLSI layout. <i>Networks</i> , 2002, 40, 38-50.	1.6	25
32	A POPMUSIC matheuristic for the capacitated vehicle routing problem. <i>Computers and Operations Research</i> , 2021, 136, 105475.	2.4	24
33	A robust and scalable algorithm for the Steiner problem in graphs. <i>Mathematical Programming Computation</i> , 2018, 10, 69-118.	3.2	23
34	Solving the Freight Car Flow Problem to Optimality. <i>Electronic Notes in Theoretical Computer Science</i> , 2002, 66, 42-52.	0.9	22
35	Reduction tests for the prize-collecting Steiner problem. <i>Operations Research Letters</i> , 2006, 34, 437-444.	0.5	22
36	Solving Replica Placement and Request Distribution in Content Distribution Networks. <i>Electronic Notes in Discrete Mathematics</i> , 2010, 36, 89-96.	0.4	22

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37	A GRASP-based approach to the generalized minimum spanning tree problem. Expert Systems With Applications, 2012, 39, 3526-3536.	4.4	22
38	Robust Branch-and-Cut-and-Price for the Capacitated Vehicle Routing Problem. Lecture Notes in Computer Science, 2004, , 1-15.	1.0	21
39	Formulations for a problem of petroleum transportation. European Journal of Operational Research, 2014, 237, 82-90.	3.5	21
40	Improved Branch-Cut-and-Price for Capacitated Vehicle Routing. Lecture Notes in Computer Science, 2014, , 393-403.	1.0	20
41	Improved state space relaxation for constrained two-dimensional guillotine cutting problems. European Journal of Operational Research, 2019, 272, 106-120.	3.5	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.	1.0	16
44	A column generation approach for power-aware optimization of virtualized heterogeneous server clusters. Computers and Industrial Engineering, 2012, 63, 652-662.	3.4	14
45	Hop-level flow formulation for the survivable network design with hop constraints problem. Networks, 2013, 61, 171-179.	1.6	14
46	A grid-enabled distributed branch-and-bound algorithm with application on the Steiner Problem in graphs. Parallel Computing, 2006, 32, 629-642.	1.3	13
47	A distributed dual ascent algorithm for the Hop-constrained Steiner Tree Problem. Operations Research Letters, 2010, 38, 57-62.	0.5	13
48	In-Out Separation and Column Generation Stabilization by Dual Price Smoothing. Lecture Notes in Computer Science, 2013, , 354-365.	1.0	13
49	A Generic Exact Solver for Vehicle Routing and Related Problems. Lecture Notes in Computer Science, 2019, , 354-369.	1.0	12
50	A distributed dual ascent algorithm for Steiner problems in multicast routing. Networks, 2009, 53, 170-183.	1.6	11
51	Unsplittable non-additive capacitated network design using set functions polyhedra. Computers and Operations Research, 2016, 66, 105-115.	2.4	11
52	Comparative Analysis of Capacitated Arc Routing Formulations for Designing a New Branch-Cut-and-Price Algorithm. Transportation Science, 2019, 53, 1673-1694.	2.6	11
53	On the exact solution of vehicle routing problems with backhauls. European Journal of Operational Research, 2020, 287, 76-89.	3.5	10
54	Fast local search for the steiner problem in graphs. Journal of Experimental Algorithmics, 2012, 17, .	0.7	8

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55	On the exact solution of a large class of parallel machine scheduling problems. <i>Journal of Scheduling</i> , 2020, 23, 411-429.	1.3	8
56	New Benchmark Instances for The Steiner Problem in Graphs. <i>Applied Optimization</i> , 2003, , 601-614.	0.4	8
57	The $\hat{P}^3$ -connected assignment problem. <i>European Journal of Operational Research</i> , 1999, 118, 127-138.	3.5	7
58	Column generation approaches for the software clustering problem. <i>Computational Optimization and Applications</i> , 2016, 64, 843-864.	0.9	7
59	On the complete set packing and set partitioning polytopes: Properties and rank 1 facets. <i>Operations Research Letters</i> , 2018, 46, 389-392.	0.5	6
60	The Time Dependent Traveling Salesman Problem: Polyhedra and Branch-Cut-and-Price Algorithm. <i>Lecture Notes in Computer Science</i> , 2010, , 202-213.	1.0	5
61	Branch-and-cut and hybrid local search for the multi-level capacitated minimum spanning tree problem. <i>Networks</i> , 2012, 59, 148-160.	1.6	5
62	A branch-cut-and-price algorithm for the cumulative capacitated vehicle routing problem. <i>4or</i> , 2023, 21, 47-71.	1.0	5
63	Capacitated Multi-Layer Network Design with Unsplittable Demands: Polyhedra and Branch-and-Cut. <i>Discrete Optimization</i> , 2020, 35, 100555.	0.6	4
64	Solving Bin Packing Problems Using VRPSolver Models. <i>SN Operations Research Forum</i> , 2021, 2, .	0.6	4
65	Distance Transformation for Network Design Problems. <i>SIAM Journal on Optimization</i> , 2019, 29, 1687-1713.	1.2	3
66	Vertex-Disjoint Packing of Two Steiner Trees: Polyhedra and Branch-and-Cut. <i>Lecture Notes in Computer Science</i> , 1999, , 439-452.	1.0	3
67	A branch-cut-and-price algorithm for the traveling salesperson problem with hotel selection. <i>Computers and Operations Research</i> , 2020, 123, 104986.	2.4	3
68	Vertex-Disjoint Packing of Two Steiner Trees: polyhedra and branch-and-cut. <i>Mathematical Programming</i> , 2001, 90, 537-557.	1.6	2
69	Capacitated Network Design using Bin-Packing. <i>Electronic Notes in Discrete Mathematics</i> , 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. <i>Pesquisa Operacional</i> , 2017, 37, 545-570.	0.1	1
72	Hop-Level Flow Formulation for the Hop Constrained Survivable Network Design Problem. <i>Lecture Notes in Computer Science</i> , 2011, , 176-181.	1.0	1

#	ARTICLE	IF	CITATIONS
73	THE GUIDE TO NP-COMPLETENESS IS 40 YEARS OLD: AN HOMAGE TO DAVID S. JOHNSON. Pesquisa Operacional, 0, 40, .	0.1	0
74	A Distributed Primal-Dual Heuristic for Steiner Problems in Networks. , 2007, , 175-188.		0