

# Samuel Burer

## List of Publications by Year in descending order

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Version: 2024-02-01

50  
papers

2,681  
citations

236925

25  
h-index

206112

48  
g-index

51  
all docs

51  
docs citations

51  
times ranked

1637  
citing authors

#	ARTICLE	IF	CITATIONS
1	A nonlinear programming algorithm for solving semidefinite programs via low-rank factorization. <i>Mathematical Programming</i> , 2003, 95, 329-357.	2.4	444
2	Non-convex mixed-integer nonlinear programming: A survey. <i>Surveys in Operations Research and Management Science</i> , 2012, 17, 97-106.	3.1	284
3	On the copositive representation of binary and continuous nonconvex quadratic programs. <i>Mathematical Programming</i> , 2009, 120, 479-495.	2.4	273
4	Local Minima and Convergence in Low-Rank Semidefinite Programming. <i>Mathematical Programming</i> , 2005, 103, 427-444.	2.4	210
5	Rank-Two Relaxation Heuristics for MAX-CUT and Other Binary Quadratic Programs. <i>SIAM Journal on Optimization</i> , 2002, 12, 503-521.	2.0	147
6	A finite branch-and-bound algorithm for nonconvex quadratic programming via semidefinite relaxations. <i>Mathematical Programming</i> , 2008, 113, 259-282.	2.4	112
7	Second-Order-Cone Constraints for Extended Trust-Region Subproblems. <i>SIAM Journal on Optimization</i> , 2013, 23, 432-451.	2.0	80
8	Solving Lift-and-Project Relaxations of Binary Integer Programs. <i>SIAM Journal on Optimization</i> , 2006, 16, 726-750.	2.0	76
9	Globally solving nonconvex quadratic programming problems via completely positive programming. <i>Mathematical Programming Computation</i> , 2012, 4, 33-52.	4.8	73
10	Computable representations for convex hulls of low-dimensional quadratic forms. <i>Mathematical Programming</i> , 2010, 124, 33-43.	2.4	68
11	Globally solving box-constrained nonconvex quadratic programs with semidefinite-based finite branch-and-bound. <i>Computational Optimization and Applications</i> , 2009, 43, 181-195.	1.6	58
12	Coordinating the supply chain in the agricultural seed industry. <i>European Journal of Operational Research</i> , 2008, 185, 354-377.	5.7	57
13	A projected gradient algorithm for solving the maxcut SDP relaxation. <i>Optimization Methods and Software</i> , 2001, 15, 175-200.	2.4	53
14	Optimizing a polyhedral-semidefinite relaxation of completely positive programs. <i>Mathematical Programming Computation</i> , 2010, 2, 1-19.	4.8	53
15	On Nonconvex Quadratic Programming with Box Constraints. <i>SIAM Journal on Optimization</i> , 2009, 20, 1073-1089.	2.0	50
16	Maximum stable set formulations and heuristics based on continuous optimization. <i>Mathematical Programming</i> , 2002, 94, 137-166.	2.4	44
17	The trust region subproblem with non-intersecting linear constraints. <i>Mathematical Programming</i> , 2015, 149, 253-264.	2.4	44
18	A gentle, geometric introduction to copositive optimization. <i>Mathematical Programming</i> , 2015, 151, 89-116.	2.4	39

#	ARTICLE	IF	CITATIONS
19	Representing quadratically constrained quadratic programs as generalized copositive programs. <i>Operations Research Letters</i> , 2012, 40, 203-206.	0.7	38
20	Solving a class of semidefinite programs via nonlinear programming. <i>Mathematical Programming</i> , 2002, 93, 97-122.	2.4	37
21	Copositive Programming. <i>Profiles in Operations Research</i> , 2012, , 201-218.	0.4	35
22	The difference between $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll" \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 5 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle A - \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 5 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ doubly nonnegative and completely positive matrices. <i>Linear Algebra and Its Applications</i> , 2009, 431, 1539-1552.	0.9	34
23	A copositive approach for two-stage adjustable robust optimization with uncertain right-hand sides. <i>Computational Optimization and Applications</i> , 2018, 70, 33-59.	1.6	33
24	Semidefinite Programming in the Space of Partial Positive Semidefinite Matrices. <i>SIAM Journal on Optimization</i> , 2003, 14, 139-172.	2.0	31
25	The MILP Road to MIQCP. <i>The IMA Volumes in Mathematics and Its Applications</i> , 2012, , 373-405.	0.5	31
26	Exact semidefinite formulations for a class of (random and non-random) nonconvex quadratic programs. <i>Mathematical Programming</i> , 2020, 181, 1-17.	2.4	28
27	A computational study of a gradient-based log-barrier algorithm for a class of large-scale SDPs. <i>Mathematical Programming</i> , 2003, 95, 359-379.	2.4	27
28	Solving maximum-entropy sampling problems using factored masks. <i>Mathematical Programming</i> , 2007, 109, 263-281.	2.4	24
29	How to convexify the intersection of a second order cone and a nonconvex quadratic. <i>Mathematical Programming</i> , 2017, 162, 393-429.	2.4	24
30	Computational enhancements in low-rank semidefinite programming. <i>Optimization Methods and Software</i> , 2006, 21, 493-512.	2.4	23
31	D.C. Versus Copositive Bounds for Standard QP. <i>Journal of Global Optimization</i> , 2005, 33, 299-312.	1.8	20
32	A Two-Variable Approach to the Two-Trust-Region Subproblem. <i>SIAM Journal on Optimization</i> , 2016, 26, 661-680.	2.0	20
33	Faster, but weaker, relaxations for quadratically constrained quadratic programs. <i>Computational Optimization and Applications</i> , 2014, 59, 27-45.	1.6	13
34	Quadratic programs with hollows. <i>Mathematical Programming</i> , 2018, 170, 541-553.	2.4	13
35	Interior-Point Algorithms for Semidefinite Programming Based on a Nonlinear Formulation. <i>Computational Optimization and Applications</i> , 2002, 22, 49-79.	1.6	11
36	Separation and relaxation for cones of quadratic forms. <i>Mathematical Programming</i> , 2013, 137, 343-370.	2.4	10

#	ARTICLE	IF	CITATIONS
37	Unbounded convex sets for non-convex mixed-integer quadratic programming. <i>Mathematical Programming</i> , 2014, 143, 231-256.	2.4	9
38	A data-driven distributionally robust bound on the expected optimal value of uncertain mixed 0-1 linear programming. <i>Computational Management Science</i> , 2018, 15, 111-134.	1.3	9
39	Ap-cone sequential relaxation procedure for 0-1 integer programs. <i>Optimization Methods and Software</i> , 2009, 24, 523-548.	2.4	8
40	Convex hull representations for bounded products of variables. <i>Journal of Global Optimization</i> , 2021, 80, 757.	1.8	7
41	Robust sensitivity analysis of the optimal value of linear programming. <i>Optimization Methods and Software</i> , 2017, 32, 1187-1205.	2.4	5
42	Relaxing the optimality conditions of box QP. <i>Computational Optimization and Applications</i> , 2011, 48, 653-673.	1.6	4
43	Quadratic optimization with switching variables: the convex hull for $n=2$ . <i>Mathematical Programming</i> , 2021, 188, 421-441.	2.4	4
44	Newsvendor games: convex optimization of centralized inventory operations. <i>Top</i> , 2012, 20, 707-728.	1.6	3
45	Nearly-efficient tuitions and subsidies in American public higher education. <i>Economics of Education Review</i> , 2016, 55, 182-197.	1.4	3
46	A branch-and-bound algorithm for instrumental variable quantile regression. <i>Mathematical Programming Computation</i> , 2017, 9, 471-497.	4.8	3
47	A General Framework for Establishing Polynomial Convergence of Long-Step Methods for Semidefinite Programming. <i>Optimization Methods and Software</i> , 2003, 18, 1-38.	2.4	2
48	A semidefinite programming approach to the hypergraph minimum bisection problem. <i>Optimization</i> , 2011, 60, 413-427.	1.7	2
49	Strengthened SDP relaxation for an extended trust region subproblem with an application to optimal power flow. <i>Mathematical Programming</i> , 0, , 1.	2.4	2
50	Three methods for robust grading. <i>European Journal of Operational Research</i> , 2019, 272, 364-371.	5.7	1