Mohit Tawarmalani

List of Publications by Year
in descending order

58	3,420	279778 23	161844 54
papers	citations	h-index	g-index

58	58	58	2088
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A polyhedral branch-and-cut approach to global optimization. Mathematical Programming, 2005, 103, 225-249.	2.4	983
2	Global optimization of mixed-integer nonlinear programs: A theoretical and computational study. Mathematical Programming, 2004, 99, 563-591.	2.4	439
3	Convexification and Global Optimization in Continuous and Mixed-Integer Nonlinear Programming. Nonconvex Optimization and Its Applications, 2002, , .	0.1	392
4	A finite branch-and-bound algorithm for two-stage stochastic integer programs. Mathematical Programming, 2004, 100, 355-377.	2.4	169
5	A Lagrangian Approach to the Pooling Problem. Industrial & Engineering Chemistry Research, 1999, 38, 1956-1972.	3.7	115
6	Convex extensions and envelopes of lower semi-continuous functions. Mathematical Programming, 2002, 93, 247-263.	2.4	101
7	Semidefinite Relaxations of Fractional Programs via Novel Convexification Techniques. Journal of Global Optimization, 2001, 20, 133-154.	1.8	97
8	Design of alternative refrigerants via global optimization. AICHE Journal, 2003, 49, 1761-1775.	3.6	93
9	Semidefinite relaxations for quadratically constrained quadratic programming: A review and comparisons. Mathematical Programming, 2011, 129, 129-157.	2.4	90
10	Cloudward bound. Computer Communication Review, 2010, 40, 243-254.	1.8	81
11	Multiterm polyhedral relaxations for nonconvex, quadratically constrained quadratic programs. Optimization Methods and Software, 2009, 24, 485-504.	2.4	72
12	Global optimization of multicomponent distillation configurations: 2. Enumeration based global minimization algorithm. AICHE Journal, 2016, 62, 2071-2086.	3.6	55
13	Explicit convex and concave envelopes through polyhedral subdivisions. Mathematical Programming, 2013, 138, 531-577.	2.4	54
14	Global Optimization of 0-1 Hyperbolic Programs. Journal of Global Optimization, 2002, 24, 385-416.	1.8	52
15	Thermal coupling links to liquidâ€only transfer streams: A path for new dividing wall columns. AICHE Journal, 2014, 60, 2949-2961.	3.6	51
16	Applications of global optimization to process and molecular design. Computers and Chemical Engineering, 2000, 24, 2157-2169.	3.8	42
17	Global optimization of nonconvex problems with multilinear intermediates. Mathematical Programming Computation, 2015, 7, 1-37.	4.8	33
18	An MINLP formulation for the optimization of multicomponent distillation configurations. Computers and Chemical Engineering, 2019, 125, 13-30.	3.8	31

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19	Strong valid inequalities for orthogonal disjunctions and bilinear covering sets. Mathematical Programming, 2010, 124, 481-512.	2.4	30
20	A systematic method to synthesize all dividing wall columns for nâ€component separationâ€”Part I. AIChE Journal, 2018, 64, 649-659.	3.6	29
21	Accelerating Branch-and-Bound through a Modeling Language Construct for Relaxation-Specific Constraints. Journal of Global Optimization, 2005, 32, 259-280.	1.8	28
22	Economic and Policy Implications of Restricted Patch Distribution. Management Science, 2016, 62, 3161-3182.	4.1	26
23	Short-Cut Methods versus Rigorous Methods for Performance-Evaluation of Distillation Configurations. Industrial & Engineering Chemistry Research, 2018, 57, 7726-7731.	3.7	26
24	Global optimization of multicomponent distillation configurations: Global minimization of total cost for multicomponent mixture separations. Computers and Chemical Engineering, 2019, 126, 249-262.	3.8	26
25	Global optimization of multicomponent distillation configurations: 1. Need for a reliable global optimization algorithm. AIChE Journal, 2013, 59, 971-981.	3.6	25
26	Thermal coupling links to liquidâ€only transfer streams: An enumeration method for new FTC dividing wall columns. AIChE Journal, 2016, 62, 1200-1211.	3.6	24
27	A systematic method to synthesize all dividing wall columns for nâ€component separation: Part II. AIChE Journal, 2018, 64, 660-672.	3.6	23
28	Lifting inequalities: a framework for generating strong cuts for nonlinear programs. Mathematical Programming, 2010, 121, 61-104.	2.4	21
29	Systematic Analysis Reveals Thermal Separations Are Not Necessarily Most Energy Intensive. Joule, 2021, 5, 330-343.	24.0	20
30	Product Disaggregation in Global Optimization and Relaxations of Rational Programs. Optimization and Engineering, 2002, 3, 281-303.	2.4	15
31	Deriving convex hulls through lifting and projection. Mathematical Programming, 2018, 169, 377-415.	2.4	15
32	Round-the-clock power supply and a sustainable economy via synergistic integration of solar thermal power and hydrogen processes. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15821-15826.	7.1	14
33	Minimum energy of multicomponent distillation systems using minimum additional heat and mass integration sections. AIChE Journal, 2018, 64, 3410-3418.	3.6	14
34	Cardinality Bundling with Spenceâ€“Mirrlees Reservation Prices. Management Science, 2019, 65, 1891-1908.	4.1	13
35	Synthesis of augmented biofuel processes using solar energy. AIChE Journal, 2014, 60, 2533-2545.	3.6	12
36	Allocating Objects in a Network of Caches: Centralized and Decentralized Analyses. Management Science, 2009, 55, 132-147.	4.1	10

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37	Global minimization of total exergy loss of multicomponent distillation configurations. AICHE Journal, 2019, 65, e16737.	3.6	9
38	110th Anniversary: Thermal Coupling via Heat Transfer: A Potential Route to Simple Distillation Configurations with Lower Heat Duty. Industrial & Engineering Chemistry Research, 2019, 58, 21671-21678.	3.7	9
39	Lancet: Better Network Resilience by Designing for Pruned Failure Sets. Proceedings of the ACM on Measurement and Analysis of Computing Systems, 2019, 3, 1-26.	1.8	9
40	Multi-period maintenance scheduling of tree networks with minimum flow disruption. Naval Research Logistics, 2011, 58, 507-530.	2.2	8
41	A New Framework for Combining a Condenser and Reboiler in a Configuration To Consolidate Distillation Columns. Industrial & Engineering Chemistry Research, 2015, 54, 10449-10464.	3.7	8
42	Simultaneous Convexification of Bilinear Functions over Polytopes with Application to Network Interdiction. SIAM Journal on Optimization, 2017, 27, 1801-1833.	2.0	8
43	Convexification Techniques for Linear Complementarity Constraints. Lecture Notes in Computer Science, 2011, , 336-348.	1.3	7
44	A Simple Criterion for Feasibility of Heat Integration between Distillation Streams Based on Relative Volatilities. Industrial & Engineering Chemistry Research, 2021, 60, 10286-10302.	3.7	6
45	Optimal design of membrane cascades for gaseous and liquid mixtures via MINLP. Journal of Membrane Science, 2021, 636, 119514.	8.2	6
46	Modified basic distillation configurations with intermediate sections for energy savings. AICHE Journal, 2014, 60, 1091-1097.	3.6	5
47	Integrated Solar Thermal Hydrogen and Power Coproduction Process for Continuous Power Supply and Production of Chemicals. Computer Aided Chemical Engineering, 2015, 37, 2291-2296.	0.5	5
48	Optimal Multicomponent Distillation Column Sequencing: Software and Case Studies. Computer Aided Chemical Engineering, 2018, 44, 223-228.	0.5	3
49	Lifted inequalities for $$0mathord {-}1$$ mixed-integer bilinear covering sets. Mathematical Programming, 2014, 145, 403-450.	2.4	2
50	On cutting planes for cardinality-constrained linear programs. Mathematical Programming, 2019, 178, 417-448.	2.4	2
51	A new framework to relax composite functions in nonlinear programs. Mathematical Programming, 2021, 190, 427-466.	2.4	2
52	Lancet. Performance Evaluation Review, 2020, 48, 53-54.	0.6	2
53	D-tunes. Computer Communication Review, 2013, 43, 483-484.	1.8	2
54	Convexification of Permutation-Invariant Sets and an Application to Sparse Principal Component Analysis. Mathematics of Operations Research, 2022, 47, 2547-2584.	1.3	2

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55	Probability estimation via policy restrictions, convexification, and approximate sampling. Mathematical Programming, 0, , .	2.4	2
56	Information theoretic limits for linear prediction with graph-structured sparsity. , 2017, , .		1
57	Convexification techniques for linear complementarity constraints. Journal of Global Optimization, 2021, 80, 249-286.	1.8	1
58	Tractable Relaxations of Composite Functions. Mathematics of Operations Research, 2022, 47, 1110-1140.	1.3	0