

Andreas Waechter

List of Publications by Year in descending order

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34
papers

9,256
citations

393982

19
h-index

414034

32
g-index

34
all docs

34
docs citations

34
times ranked

6181
citing authors

#	ARTICLE	IF	CITATIONS
1	On the implementation of an interior-point filter line-search algorithm for large-scale nonlinear programming. <i>Mathematical Programming</i> , 2006, 106, 25-57.	1.6	6,447
2	An algorithmic framework for convex mixed integer nonlinear programs. <i>Discrete Optimization</i> , 2008, 5, 186-204.	0.6	622
3	Branching and bounds tightening techniques for non-convex MINLP. <i>Optimization Methods and Software</i> , 2009, 24, 597-634.	1.6	448
4	Advances in simultaneous strategies for dynamic process optimization. <i>Chemical Engineering Science</i> , 2002, 57, 575-593.	1.9	336
5	Line Search Filter Methods for Nonlinear Programming: Motivation and Global Convergence. <i>SIAM Journal on Optimization</i> , 2005, 16, 1-31.	1.2	292
6	Global Convergence of a Trust-Region SQP-Filter Algorithm for General Nonlinear Programming. <i>SIAM Journal on Optimization</i> , 2002, 13, 635-659.	1.2	227
7	Matching-based preprocessing algorithms to the solution of saddle-point problems in large-scale nonconvex interior-point optimization. <i>Computational Optimization and Applications</i> , 2007, 36, 321-341.	0.9	136
8	A reduced space interior point strategy for optimization of differential algebraic systems. <i>Computers and Chemical Engineering</i> , 2000, 24, 39-51.	2.0	82
9	Adaptive Barrier Update Strategies for Nonlinear Interior Methods. <i>SIAM Journal on Optimization</i> , 2009, 19, 1674-1693.	1.2	75
10	A Primal-Dual Interior-Point Method for Nonlinear Programming with Strong Global and Local Convergence Properties. <i>SIAM Journal on Optimization</i> , 2003, 14, 173-199.	1.2	73
11	Failure of global convergence for a class of interior point methods for nonlinear programming. <i>Mathematical Programming</i> , 2000, 88, 565-574.	1.6	69
12	Dynamic optimization of the Tennessee Eastman process using the OptControlCentre. <i>Computers and Chemical Engineering</i> , 2003, 27, 1513-1531.	2.0	69
13	An Interior-Point Algorithm for Large-Scale Nonlinear Optimization with Inexact Step Computations. <i>SIAM Journal of Scientific Computing</i> , 2010, 32, 3447-3475.	1.3	39
14	Inertia-Revealing Preconditioning For Large-Scale Nonconvex Constrained Optimization. <i>SIAM Journal of Scientific Computing</i> , 2009, 31, 939-960.	1.3	36
15	DC Optimal Power Flow With Joint Chance Constraints. <i>IEEE Transactions on Power Systems</i> , 2021, 36, 147-158.	4.6	35
16	Solving Chance-Constrained Problems via a Smooth Sample-Based Nonlinear Approximation. <i>SIAM Journal on Optimization</i> , 2020, 30, 2221-2250.	1.2	30
17	A Matrix-Free Algorithm for Equality Constrained Optimization Problems with Rank-Deficient Jacobians. <i>SIAM Journal on Optimization</i> , 2010, 20, 1224-1249.	1.2	24
18	Acceleration Strategies to Enhance Metabolic Ensemble Modeling Performance. <i>Biophysical Journal</i> , 2017, 113, 1150-1162.	0.2	24

#	ARTICLE	IF	CITATIONS
19	A Sequential Algorithm for Solving Nonlinear Optimization Problems with Chance Constraints. SIAM Journal on Optimization, 2018, 28, 930-958.	1.2	22
20	A Derivative-Free Trust-Region Algorithm for the Optimization of Functions Smoothed via Gaussian Convolution Using Adaptive Multiple Importance Sampling. SIAM Journal on Optimization, 2018, 28, 1478-1507.	1.2	22
21	A note on the implementation of an interior-point algorithm for nonlinear optimization with inexact step computations. Mathematical Programming, 2012, 136, 209-227.	1.6	19
22	Application and comparison of derivative-free optimization algorithms to control and optimize free radical polymerization simulated using the kinetic Monte Carlo method. Computers and Chemical Engineering, 2018, 108, 268-275.	2.0	17
23	An Inexact Sequential Quadratic Optimization Algorithm for Nonlinear Optimization. SIAM Journal on Optimization, 2014, 24, 1041-1074.	1.2	15
24	An SR1/BFGS SQP algorithm for nonconvex nonlinear programs with block-diagonal Hessian matrix. Mathematical Programming Computation, 2016, 8, 435-459.	3.2	14
25	A study of the difference-of-convex approach for solving linear programs with complementarity constraints. Mathematical Programming, 2018, 169, 221-254.	1.6	14
26	Practical algorithms for value-at-risk portfolio optimization problems. Quantitative Finance Letters, 2015, 3, 1-9.	0.2	13
27	A limited-memory quasi-Newton algorithm for bound-constrained non-smooth optimization. Optimization Methods and Software, 2019, 34, 150-171.	1.6	11
28	Rapid Discrete Optimization via Simulation with Gaussian Markov Random Fields. INFORMS Journal on Computing, 2021, 33, 915-930.	1.0	11
29	A Two-Stage Decomposition Approach for AC Optimal Power Flow. IEEE Transactions on Power Systems, 2021, 36, 303-312.	4.6	11
30	Large-scale nonlinear optimization in circuit tuning. Future Generation Computer Systems, 2005, 21, 1251-1262.	4.9	6
31	An Active-Set Method for Quadratic Programming Based On Sequential Hot-Starts. SIAM Journal on Optimization, 2015, 25, 967-994.	1.2	6
32	Computational methods for optimization via simulation using Gaussian Markov Random Fields. , 2017, , .		5
33	UNIFORM CONVERGENCE OF SAMPLE AVERAGE APPROXIMATION WITH ADAPTIVE MULTIPLE IMPORTANCE SAMPLING. , 2018, , .		5
34	An enhanced logical benders approach for linear programs with complementarity constraints. Journal of Global Optimization, 2020, 77, 687-714.	1.1	1