

# Stephen J Wright

## List of Publications by Year in descending order

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69  
papers

8,043  
citations

159358

30  
h-index

123241

61  
g-index

69  
all docs

69  
docs citations

69  
times ranked

6725  
citing authors

#	ARTICLE	IF	CITATIONS
1	Gradient Projection for Sparse Reconstruction: Application to Compressed Sensing and Other Inverse Problems. IEEE Journal on Selected Topics in Signal Processing, 2007, 1, 586-597.	7.3	2,723
2	Coordinate descent algorithms. Mathematical Programming, 2015, 151, 3-34.	1.6	805
3	Computational Methods for Sparse Solution of Linear Inverse Problems. Proceedings of the IEEE, 2010, 98, 948-958.	16.4	786
4	Distributed MPC Strategies With Application to Power System Automatic Generation Control. IEEE Transactions on Control Systems Technology, 2008, 16, 1192-1206.	3.2	643
5	Cooperative distributed model predictive control. Systems and Control Letters, 2010, 59, 460-469.	1.3	409
6	The empirical behavior of sampling methods for stochastic programming. Annals of Operations Research, 2006, 142, 215-241.	2.6	285
7	Simultaneous Variable Selection. Technometrics, 2005, 47, 349-363.	1.3	252
8	Some properties of regularization and penalization schemes for MPECs. Optimization Methods and Software, 2004, 19, 527-556.	1.6	147
9	Cooperative distributed model predictive control for nonlinear systems. Journal of Process Control, 2011, 21, 698-704.	1.7	124
10	Decomposition Algorithms for Stochastic Programming on a Computational Grid. Computational Optimization and Applications, 2003, 24, 207-250.	0.9	121
11	Duality-based algorithms for $\ell_1$ -total-variation-regularized image restoration. Computational Optimization and Applications, 2010, 47, 377-400.	0.9	121
12	Warm-Start Strategies in Interior-Point Methods for Linear Programming. SIAM Journal on Optimization, 2002, 12, 782-810.	1.2	107
13	Fast, large-scale model predictive control by partial enumeration. Automatica, 2007, 43, 852-860.	3.0	101
14	Conditions under which suboptimal nonlinear MPC is inherently robust. Systems and Control Letters, 2011, 60, 747-755.	1.3	100
15	Efficient optimization of natural resonance theory weightings and bond orders by gram-based convex programming. Journal of Computational Chemistry, 2019, 40, 2028-2035.	1.5	91
16	Sparse reconstruction by separable approximation. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	79
17	Nonlinear Model Predictive Control via Feasibility-Perturbed Sequential Quadratic Programming. Computational Optimization and Applications, 2004, 28, 87-121.	0.9	75
18	A proximal method for composite minimization. Mathematical Programming, 2016, 158, 501-546.	1.6	62

#	ARTICLE	IF	CITATIONS
19	Elastic-mode algorithms for mathematical programs with equilibrium constraints: global convergence and stationarity properties. <i>Mathematical Programming</i> , 2007, 110, 337-371.	1.6	54
20	An Algorithm for Degenerate Nonlinear Programming with Rapid Local Convergence. <i>SIAM Journal on Optimization</i> , 2005, 15, 673-696.	1.2	53
21	Data assimilation in weather forecasting: a case study in PDE-constrained optimization. <i>Optimization and Engineering</i> , 2009, 10, 409-426.	1.3	50
22	PMU Placement for Line Outage Identification via Multinomial Logistic Regression. <i>IEEE Transactions on Smart Grid</i> , 2018, 9, 122-131.	6.2	50
23	Accelerated Block-coordinate Relaxation for Regularized Optimization. <i>SIAM Journal on Optimization</i> , 2012, 22, 159-186.	1.2	46
24	A Superlinear Infeasible-Interior-Point Algorithm for Monotone Complementarity Problems. <i>Mathematics of Operations Research</i> , 1996, 21, 815-838.	0.8	45
25	Analyzing Vulnerability of Power Systems with Continuous Optimization Formulations. <i>IEEE Transactions on Network Science and Engineering</i> , 2016, 3, 132-146.	4.1	42
26	Closed-loop behavior of nonlinear model predictive control. <i>AIChE Journal</i> , 2004, 50, 2142-2154.	1.8	40
27	Efficient schemes for robust IMRT treatment planning. <i>Physics in Medicine and Biology</i> , 2006, 51, 5621-5642.	1.6	38
28	Distributed Output Feedback MPC for Power System Control. , 2006, , .		38
29	Local Convergence of an Algorithm for Subspace Identification from Partial Data. <i>Foundations of Computational Mathematics</i> , 2015, 15, 1279-1314.	1.5	35
30	Constraint identification and algorithm stabilization for degenerate nonlinear programs. <i>Mathematical Programming</i> , 2003, 95, 137-160.	1.6	31
31	Active Set Identification in Nonlinear Programming. <i>SIAM Journal on Optimization</i> , 2006, 17, 577-605.	1.2	31
32	Complexity Analysis of Second-Order Line-Search Algorithms for Smooth Nonconvex Optimization. <i>SIAM Journal on Optimization</i> , 2018, 28, 1448-1477.	1.2	31
33	On GROUSE and incremental SVD. , 2013, , .		30
34	Partial enumeration MPC: Robust stability results and application to an unstable CSTR. <i>Journal of Process Control</i> , 2011, 21, 1459-1466.	1.7	28
35	A Newton-CG algorithm with complexity guarantees for smooth unconstrained optimization. <i>Mathematical Programming</i> , 2020, 180, 451-488.	1.6	25
36	Industrial, large-scale model predictive control with structured neural networks. <i>Computers and Chemical Engineering</i> , 2021, 150, 107291.	2.0	24

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37	LASSO-Patternsearch algorithm with application to ophthalmology and genomic data. <i>Statistics and Its Interface</i> , 2008, 1, 137-153.	0.2	24
38	Superlinear Convergence of an Interior-Point Method Despite Dependent Constraints. <i>Mathematics of Operations Research</i> , 2000, 25, 179-194.	0.8	23
39	Solving Dynamic Programming Problems on a Computational Grid. <i>Computational Economics</i> , 2015, 45, 261-284.	1.5	22
40	Optimization Algorithms and Applications for Speech and Language Processing. <i>IEEE Transactions on Audio Speech and Language Processing</i> , 2013, 21, 2231-2243.	3.8	20
41	Inexact Successive quadratic approximation for regularized optimization. <i>Computational Optimization and Applications</i> , 2019, 72, 641-674.	0.9	20
42	An accelerated Newton method for equations with semismooth Jacobians and nonlinear complementarity problems. <i>Mathematical Programming</i> , 2009, 117, 355-386.	1.6	17
43	Linear programming formulations and algorithms for radiotherapy treatment planning. <i>Optimization Methods and Software</i> , 2006, 21, 201-231.	1.6	15
44	Random permutations fix a worst case for cyclic coordinate descent. <i>IMA Journal of Numerical Analysis</i> , 2019, 39, 1246-1275.	1.5	15
45	An S \$ell _1\$\$ â„“ 1 LP-active set approach for feasibility restoration in power systems. <i>Optimization and Engineering</i> , 2016, 17, 385-419.	1.3	14
46	Inherently robust suboptimal nonlinear MPC: Theory and application. , 2011, , .		12
47	Behavior of accelerated gradient methods near critical points of nonconvex functions. <i>Mathematical Programming</i> , 2019, 176, 403-427.	1.6	11
48	A log-barrier Newton-CG method for bound constrained optimization with complexity guarantees. <i>IMA Journal of Numerical Analysis</i> , 2021, 41, 84-121.	1.5	11
49	Trust-Region Newton-CG with Strong Second-Order Complexity Guarantees for Nonconvex Optimization. <i>SIAM Journal on Optimization</i> , 2021, 31, 518-544.	1.2	11
50	Randomized Sampling for Basis Function Construction in Generalized Finite Element Methods. <i>Multiscale Modeling and Simulation</i> , 2020, 18, 1153-1177.	0.6	11
51	Random Sampling and Efficient Algorithms for Multiscale PDEs. <i>SIAM Journal of Scientific Computing</i> , 2020, 42, A2974-A3005.	1.3	10
52	Analyzing random permutations for cyclic coordinate descent. <i>Mathematics of Computation</i> , 2020, 89, 2217-2248.	1.1	10
53	Predicting kinase inhibitors using bioactivity matrix derived informer sets. <i>PLoS Computational Biology</i> , 2019, 15, e1006813.	1.5	9
54	Variable Smoothing for Weakly Convex Composite Functions. <i>Journal of Optimization Theory and Applications</i> , 2021, 188, 628-649.	0.8	8

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55	Graph-Guided Regularized Regression of Pacific Ocean Climate Variables to Increase Predictive Skill of Southwestern U.S. Winter Precipitation. <i>Journal of Climate</i> , 2021, 34, 737-754.	1.2	8
56	Complexity of Proximal Augmented Lagrangian for Nonconvex Optimization with Nonlinear Equality Constraints. <i>Journal of Scientific Computing</i> , 2021, 86, 1.	1.1	7
57	A Distributed Quasi-Newton Algorithm for Empirical Risk Minimization with Nonsmooth Regularization. , 2018, , .		7
58	Efficient Convex Optimization for Linear MPC. <i>Control Engineering</i> , 2019, , 287-303.	0.3	6
59	Randomness and permutations in coordinate descent methods. <i>Mathematical Programming</i> , 2020, 181, 349-376.	1.6	6
60	Global optimization in protein docking using clustering, underestimation and semidefinite programming. <i>Optimization Methods and Software</i> , 2007, 22, 803-811.	1.6	5
61	Computing Generalized Matrix Inverse on Spiking Neural Substrate. <i>Frontiers in Neuroscience</i> , 2018, 12, 115.	1.4	5
62	A Low-Rank Schwarz Method for Radiative Transfer Equation With Heterogeneous Scattering Coefficient. <i>Multiscale Modeling and Simulation</i> , 2021, 19, 775-801.	0.6	5
63	Quadratic programming. <i>Wiley Interdisciplinary Reviews: Computational Statistics</i> , 2015, 7, 153-159.	2.1	3
64	Structured Random Sketching for PDE Inverse Problems. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2020, 41, 1742-1770.	0.7	3
65	Forward &#x2014; Backward greedy algorithms for signal demixing. , 2014, , .		2
66	Adversarial classification via distributional robustness with Wasserstein ambiguity. <i>Mathematical Programming</i> , 2023, 198, 1411-1447.	1.6	1
67	Optimization in learning and data analysis. , 2013, , .		0
68	Inexact Variable Metric Stochastic Block-Coordinate Descent for Regularized Optimization. <i>Journal of Optimization Theory and Applications</i> , 2020, 185, 151-187.	0.8	0
69	Parallelizing Subgradient Methods for the Lagrangian Dual in Stochastic Mixed-Integer Programming. <i>INFORMS Journal on Optimization</i> , 2021, 3, 1-22.	0.9	0