Stephen Boyd

List of Publications by Year
in descending order

99 papers	43,039 citations	186265 28 h-index	128289 60 g-index
100 all docs	100 docs citations	100 times ranked	26684 citing authors

#	Article	IF	Citations
1	Minimizing oracle-structured composite functions. Optimization and Engineering, 2023, 24, 743-777.	2.4	1
2	Fitting feature-dependent Markov chains. Journal of Global Optimization, 2023, 87, 329-346.	1.8	1
3	Stochastic Control With Affine Dynamics and Extended Quadratic Costs. IEEE Transactions on Automatic Control, 2022, 67, 320-335.	5.7	3
4	A Certainty Equivalent Merton Problem. , 2022, 6, 1478-1483.		2
5	Embedded Code Generation With CVXPY. , 2022, 6, 2653-2658.		2
6	Operator splitting for adaptive radiation therapy with nonlinear health dynamics. Optimization Methods and Software, 2022, 37, 2300-2323.	2.4	1
7	Automatic repair of convex optimization problems. Optimization and Engineering, 2021, 22, 247-259.	2.4	3
8	Optimal representative sample weighting. Statistics and Computing, 2021, 31, 1.	1.5	3
9	Tax-Aware Portfolio Construction via Convex Optimization. Journal of Optimization Theory and Applications, 2021, 189, 364-383.	1.5	4
10	Convex restrictions in physical design. Scientific Reports, 2021, 11, 12976.	3.3	3
11	A simple effective heuristic for embedded mixed-integer quadratic programming. International Journal of Control, 2020, 93, 2-12.	1.9	74
12	Network optimization for unified packet and circuit switched networks. Optimization and Engineering, 2020, 21, 159-180.	2.4	2
13	Variable Metric Proximal Gradient Method with Diagonal Barzilai-Borwein Stepsize. , 2020, , .		11
14	Bounds for Scattering from Absorptionless Electromagnetic Structures. Physical Review Applied, 2020, 14, .	3.8	10
15	Disciplined quasiconvex programming. Optimization Letters, 2020, 14, 1643-1657.	1.6	18
16	Minimizing a sum of clipped convex functions. Optimization Letters, 2020, 14, 2443-2459.	1.6	5
17	Multi-period portfolio selection with drawdown control. Annals of Operations Research, 2019, 282, 245-271.	4.1	34
18	Real-Time Radiation Treatment Planning with Optimality Guarantees via Cluster and Bound Methods. INFORMS Journal on Computing, 2019, 31, 544-558.	1.7	5

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19	Infeasibility Detection in the Alternating Direction Method of Multipliers for Convex Optimization. Journal of Optimization Theory and Applications, 2019, 183, 490-519.	1.5	40
20	Solution refinement at regular points of conic problems. Computational Optimization and Applications, 2019, 74, 627-643.	1.6	7
21	A Distributed Method for Optimal Capacity Reservation. Journal of Optimization Theory and Applications, 2019, 182, 1130-1149.	1.5	3
22	Disciplined geometric programming. Optimization Letters, 2019, 13, 961-976.	1.6	20
23	A convex optimization approach to radiation treatment planning with dose constraints. Optimization and Engineering, 2019, 20, 277-300.	2.4	10
24	A rewriting system for convex optimization problems. Journal of Control and Decision, 2018, 5, 42-60.	1.6	328
25	Prediction error methods in learning jump ARMAX models. , 2018, , .		4
26	OSQP: An Operator Splitting Solver for Quadratic Programs. , 2018, , .		61
27	Embedded Mixed-Integer Quadratic optimization Using the OSQP Solver. , 2018, , .		21
28	Infeasibility Detection in the Alternating Direction Method of Multipliers for Convex Optimization. , 2018, , .		6
29	Saturating Splines and Feature Selection. Journal of Machine Learning Research, 2018, 18, .	62.4	0
30	Linear Convergence and Metric Selection for Douglas-Rachford Splitting and ADMM. IEEE Transactions on Automatic Control, 2017, 62, 532-544.	5.7	147
31	Dynamic energy management with scenario-based robust MPC. , 2017, , .		11
32	Embedded code generation using the OSQP solver. , 2017, , .		34
33	Multi-Period Trading via Convex Optimization. Foundations and Trends® in Optimization, 2017, 3, 1-76.	7.2	62
34	SnapVX: A Network-Based Convex Optimization Solver. Journal of Machine Learning Research, 2017, 18, 110-114.	62.4	1
35	MIMO PID tuning via iterated LMI restriction. International Journal of Robust and Nonlinear Control, 2016, 26, 1718-1731.	3.7	115
36	A New Architecture for Optimization Modeling Frameworks. , 2016, , .		1

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37	Conic Optimization via Operator Splitting and Homogeneous Self-Dual Embedding. Journal of Optimization Theory and Applications, 2016, 169, 1042-1068.	1.5	320
38	CVXPY: A Python-Embedded Modeling Language for Convex Optimization. Journal of Machine Learning Research, 2016, 17, .	62.4	38
39	Convex Optimization with Abstract Linear Operators. , 2015, , .		14
40	Approximate dynamic programming via iterated Bellman inequalities. International Journal of Robust and Nonlinear Control, 2015, 25, 1472-1496.	3.7	55
41	Optimal current waveforms for brushless permanent magnet motors. International Journal of Control, 2015, 88, 1389-1399.	1.9	12
42	Non-parametric regression modeling for stochastic optimization of power grid load forecast. , 2015, , .		10
43	A perspective-based convex relaxation for switched-affine optimal control. Systems and Control Letters, 2015, 86, 34-40.	2.3	13
44	Monotonicity and restart in fast gradient methods. , 2014, , .		25
45	Preconditioning in fast dual gradient methods. , 2014, , .		20
46	Diagonal scaling in Douglas-Rachford splitting and ADMM. , 2014, , .		38
47	Minimum-time speed optimisation over a fixed path. International Journal of Control, 2014, 87, 1297-1311.	1.9	103
48	Quadratic approximate dynamic programming for inputâ€affine systems. International Journal of Robust and Nonlinear Control, 2014, 24, 432-449.	3.7	20
49	Block splitting for distributed optimization. Mathematical Programming Computation, 2014, 6, 77-102.	4.8	61
50	Security Constrained Optimal Power Flow via proximal message passing. , 2014, , .		28
51	A distributed algorithm for fitting generalized additive models. Optimization and Engineering, 2013, 14, 213-224.	2.4	14
52	A Splitting Method for Optimal Control. IEEE Transactions on Control Systems Technology, 2013, 21, 2432-2442.	5.2	122
53	Nonconvex model predictive control for commercial refrigeration. International Journal of Control, 2013, 86, 1349-1366.	1.9	45
54	ECOS: An SOCP solver for embedded systems. , 2013, , .		368

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55	MPC for wind power gradients â€" utilizing forecasts, rotor inertia, and central energy storage. , 2013, , .		11
56	Iterated approximate value functions. , 2013, , .		6
57	Moving horizon estimation for staged QP problems. , 2012, , .		8
58	CVXGEN: a code generator for embedded convex optimization. Optimization and Engineering, 2012, 13, 1-27.	2.4	630
59	Imputing a convex objective function. , 2011, , .		106
60	Load reduction of wind turbines using receding horizon control. , 2011, , .		60
61	Receding Horizon Control. IEEE Control Systems, 2011, 31, 52-65.	0.8	191
62	Performance bounds and suboptimal policies for linear stochastic control via LMIs. International Journal of Robust and Nonlinear Control, 2011, 21, 1710-1728.	3.7	14
63	Techniques for exploring the suboptimal set. Optimization and Engineering, 2010, 11, 319-337.	2.4	7
64	Shrinkingâ€horizon dynamic programming. International Journal of Robust and Nonlinear Control, 2010, 20, 1993-2002.	3.7	25
65	State smoothing by sum-of-norms regularization. , 2010, , .		22
66	Fast Model Predictive Control Using Online Optimization. IEEE Transactions on Control Systems Technology, 2010, 18, 267-278.	5.2	987
67	Real-Time Convex Optimization in Signal Processing. IEEE Signal Processing Magazine, 2010, 27, 50-61.	5.6	226
68	Trajectory generation using sum-of-norms regularization. , 2010, , .		12
69	Compressed Sensing With Quantized Measurements. IEEE Signal Processing Letters, 2010, 17, 149-152.	3.6	237
70	Analysis and Synthesis of State-Feedback Controllers With Timing Jitter. IEEE Transactions on Automatic Control, 2009, 54, 652-657.	5.7	51
71	Wireless NUM: Rate and Reliability Tradeoffs in Random Environment. , 2009, , .		13
72	Robust design of slow-light tapers in periodic waveguides. Engineering Optimization, 2009, 41, 365-384.	2.6	32

#	ARTICLE	IF	CITATIONS
73	Estimation of faults in DC electrical power system. , 2009, , .		38
74	Cutting-set methods for robust convex optimization with pessimizing oracles. Optimization Methods and Software, 2009, 24, 381-406.	2.4	99
75	Performance bounds for linear stochastic control. Systems and Control Letters, 2009, 58, 178-182.	2.3	51
76	Processor Speed Control With Thermal Constraints. IEEE Transactions on Circuits and Systems I: Regular Papers, 2009, 56, 1994-2008.	5.4	46
77	Tractable approximate robust geometric programming. Optimization and Engineering, 2008, 9, 95-118.	2.4	80
78	Mixed state estimation for a linear Gaussian Markov model. , 2008, , .		0
79	Design of Low-Bandwidth Spatially Distributed Feedback. IEEE Transactions on Automatic Control, 2008, 53, 257-272.	5.7	28
80	Temperature Control of High-Performance Multi-core Platforms Using Convex Optimization. , 2008, , .		26
81	Learning the kernel via convex optimization. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	7
82	Mixed state estimation for a linear Gaussian Markov model. , 2008, , .		4
83	Cross-Layer Design with Adaptive Modulation: Delay, Rate, and Energy Tradeoffs. , 2008, , .		7
84	A minimax theorem with applications to machine learning, signal processing, and finance. , 2007, , .		1
85	An Efficient Method for Large-Scale l<inf>1</inf>-Regularized Convex Loss Minimization. , 2007, , .		1
86	A Tractable Method for Robust Downlink Beamforming in Wireless Communications. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	25
87	Robust Chebyshev FIR Equalization. , 2007, , .		5
88	An Efficient Method for Compressed Sensing. , 2007, , .		38
89	Beamforming With Uncertain Weights. IEEE Signal Processing Letters, 2007, 14, 348-351.	3.6	23
90	A tutorial on geometric programming. Optimization and Engineering, 2007, 8, 67-127.	2.4	926

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91	Fastest Mixing Markov Chain on a Path. American Mathematical Monthly, 2006, 113, 70-74.	0.3	30
92	Extending Scope of Robust Optimization: Comprehensive Robust Counterparts of Uncertain Problems. Mathematical Programming, 2006, 107, 63-89.	2.4	156
93	A Linear Programming Approach for the Worst-Case Norm of Uncertain Linear Systems Subject to Disturbances with Magnitude and Rate Bounds. , 2006, , .		2
94	Array Signal Processing with Robust Rejection Constraints via Second-Order Cone Programming. , 2006, , .		2
95	Applications of second-order cone programming. Linear Algebra and Its Applications, 1998, 284, 193-228.	0.9	1,924
96	Structured and simultaneous Lyapunov functions for system stability problems. International Journal of Control, 1989, 49, 2215-2240.	1.9	215
97	Structured and simultaneous Lyapunov functions for system stability problems. International Journal of Control, 1989, 49, 2215-2240.	1.9	4
98	A Certainty Equivalent Merton Problem. SSRN Electronic Journal, 0, , .	0.4	0
99	Confidence bands for a log-concave density. Journal of Computational and Graphical Statistics, 0, , 1-23.	1.7	0