Frank E Curtis

List of Publications by Year
in descending order

51 papers	2,343 citations	471371 17 h-index	233338 45 g-index
51 all docs	51 docs citations	51 times ranked	1957 citing authors

#	Article	IF	Citations
1	Optimization Methods for Large-Scale Machine Learning. SIAM Review, 2018, 60, 223-311.	4.2	1,352
2	A trust region algorithm with a worst-case iteration complexity of $$mathcal{O}(epsilon ^{-3/2})$$ O (ïµ - 3 / 2) for nonconvex optimization. Mathematical Programming, 2017, 162, 1-32.	1.6	83
3	A Sequential Quadratic Programming Algorithm for Nonconvex, Nonsmooth Constrained Optimization. SIAM Journal on Optimization, 2012, 22, 474-500.	1.2	82
4	A BFGS-SQP method for nonsmooth, nonconvex, constrained optimization and its evaluation using relative minimization profiles. Optimization Methods and Software, 2017, 32, 148-181.	1.6	67
5	An Inexact SQP Method for Equality Constrained Optimization. SIAM Journal on Optimization, 2008, 19, 351-369.	1.2	59
6	A quasi-Newton algorithm for nonconvex, nonsmooth optimization with global convergence guarantees. Mathematical Programming Computation, 2015, 7, 399-428.	3.2	54
7	Infeasibility Detection and SQP Methods for Nonlinear Optimization. SIAM Journal on Optimization, 2010, 20, 2281-2299.	1.2	50
8	An adaptive gradient sampling algorithm for non-smooth optimization. Optimization Methods and Software, 2013, 28, 1302-1324.	1.6	40
9	An Interior-Point Algorithm for Large-Scale Nonlinear Optimization with Inexact Step Computations. SIAM Journal of Scientific Computing, 2010, 32, 3447-3475.	1.3	39
10	Gradient Sampling Methods for Nonsmooth Optimization. , 2020, , 201-225.		37
11	An inexact Newton method for nonconvex equality constrained optimization. Mathematical Programming, 2010, 122, 273-299.	1.6	33
12	An adaptive augmented Lagrangian method for large-scale constrained optimization. Mathematical Programming, 2015, 152, 201-245.	1.6	33
13	A globally convergent primal-dual active-set framework for large-scale convex quadratic optimization. Computational Optimization and Applications, 2015, 60, 311-341.	0.9	31
14	Flexible penalty functions for nonlinear constrained optimization. IMA Journal of Numerical Analysis, 2008, 28, 749-769.	1.5	27
15	A Matrix-Free Algorithm for Equality Constrained Optimization Problems with Rank-Deficient Jacobians. SIAM Journal on Optimization, 2010, 20, 1224-1249.	1.2	24
16	A Sequential Algorithm for Solving Nonlinear Optimization Problems with Chance Constraints. SIAM Journal on Optimization, 2018, 28, 930-958.	1.2	22
17	ADMM for multiaffine constrained optimization. Optimization Methods and Software, 2020, 35, 257-303.	1.6	22
18	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

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19	A penalty-interior-point algorithm for nonlinear constrained optimization. Mathematical Programming Computation, 2012, 4, 181-209.	3.2	19
20	A Stochastic Trust Region Algorithm Based on Careful Step Normalization. INFORMS Journal on Optimization, 2019, 1, 200-220.	0.9	19
21	A Sequential Quadratic Optimization Algorithm with Rapid Infeasibility Detection. SIAM Journal on Optimization, 2014, 24, 839-872.	1.2	18
22	Optimization Methods for Supervised Machine Learning: From Linear Models to Deep Learning. , 2017, , 89-113.		16
23	Concise complexity analyses for trust region methods. Optimization Letters, 2018, 12, 1713-1724.	0.9	16
24	An Inexact Sequential Quadratic Optimization Algorithm for Nonlinear Optimization. SIAM Journal on Optimization, 2014, 24, 1041-1074.	1.2	15
25	Sequential Quadratic Optimization for Nonlinear Equality Constrained Stochastic Optimization. SIAM Journal on Optimization, 2021, 31, 1352-1379.	1.2	15
26	Handling nonpositive curvature in a limited memory steepest descent method. IMA Journal of Numerical Analysis, 2016, 36, 717-742.	1.5	14
27	An interior-point trust-funnel algorithm for nonlinear optimization. Mathematical Programming, 2017, 161, 73-134.	1.6	14
28	Adaptive Stochastic Optimization: A Framework for Analyzing Stochastic Optimization Algorithms. IEEE Signal Processing Magazine, 2020, 37, 32-42.	4.6	14
29	Exploiting negative curvature in deterministic and stochastic optimization. Mathematical Programming, 2019, 176, 69-94.	1.6	13
30	A Reduced-Space Algorithm for Minimizing ell_1-Regularized Convex Functions. SIAM Journal on Optimization, 2017, 27, 1583-1610.	1.2	12
31	Adaptive augmented Lagrangian methods: algorithms and practical numerical experience. Optimization Methods and Software, 2016, 31, 157-186.	1.6	11
32	Trust-Region Newton-CG with Strong Second-Order Complexity Guarantees for Nonconvex Optimization. SIAM Journal on Optimization, 2021, 31, 518-544.	1.2	11
33	An inexact regularized Newton framework with a worst-case iteration complexity of $ {mathscr O}(varepsilon^{-3/2}) $ for nonconvex optimization. IMA Journal of Numerical Analysis, 2019, 39, 1296-1327.	1.5	9
34	Complexity Analysis of a Trust Funnel Algorithm for Equality Constrained Optimization. SIAM Journal on Optimization, 2018, 28, 1533-1563.	1.2	7
35	A self-correcting variable-metric algorithm framework for nonsmooth optimization. IMA Journal of Numerical Analysis, 2020, 40, 1154-1187.	1.5	7
36	Solving nearly-separable quadratic optimization problems as nonsmooth equations. Computational Optimization and Applications, 2017, 67, 317-360.	0.9	5

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37	Central groupoids, central digraphs, and zero-one matrices A satisfying A2=J. Journal of Combinatorial Theory - Series A, 2004, 105, 35-50.	0.5	4
38	Iterative Reweighted Linear Least Squares for Exact Penalty Subproblems on Product Sets. SIAM Journal on Optimization, 2015, 25, 261-294.	1.2	4
39	R -linear convergence of limited memory steepest descent. IMA Journal of Numerical Analysis, 2018, 38, 720-742.	1.5	4
40	FaRSA for â„“₁-regularized convex optimization: local convergence and numerical experience. Optimization Methods and Software, 2018, 33, 396-415.	1.6	4
41	A fully stochastic second-order trust region method. Optimization Methods and Software, 2022, 37, 844-877.	1.6	3
42	An accelerated communication-efficient primal-dual optimization framework for structured machine learning. Optimization Methods and Software, 2021, 36, 20-44.	1.6	3
43	Practical optimal control of a wave-energy converter in regular wave environments. Renewable Energy, 2021, 171, 1382-1394.	4.3	3
44	Accelerating convergence to competitive equilibrium in electricity markets. , 2016, , .		2
45	Inexact Sequential Quadratic Optimization with Penalty Parameter Updates within the QP Solver. SIAM Journal on Optimization, 2020, 30, 1822-1849.	1.2	2
46	Limited-memory BFGS with displacement aggregation. Mathematical Programming, 2022, 194, 121-157.	1.6	2
47	A Subspace Acceleration Method for Minimization Involving a Group Sparsity-Inducing Regularizer. SIAM Journal on Optimization, 2022, 32, 545-572.	1.2	2
48	Regional complexity analysis of algorithms for nonconvex smooth optimization. Mathematical Programming, 2021, 187, 579-615.	1.6	1
49	Globally Convergent Primal-Dual Active-Set Methods with Inexact Subproblem Solves. SIAM Journal on Optimization, 2016, 26, 2261-2283.	1.2	0
50	Fast Market Clearing Algorithms. The IMA Volumes in Mathematics and Its Applications, 2018, , 155-175.	0.5	0
51	Gradient Sampling Methods with Inexact Subproblem Solutions and Gradient Aggregation. INFORMS Journal on Optimization, 2022, 4, 426-445.	0.9	0