Marc Teboulle

List of Publications by Year
in descending order

76 papers	15,094 citations	145106 33 h-index	87275 74 g-index
76 all docs	76 docs citations	76 times ranked	11305 citing authors

#	Article	IF	Citations
1	A Dynamic Alternating Direction of Multipliers for Nonconvex Minimization with Nonlinear Functional Equality Constraints. Journal of Optimization Theory and Applications, 2022, 193, 324-353.	0.8	4
2	Faster Lagrangian-Based Methods in Convex Optimization. SIAM Journal on Optimization, 2022, 32, 204-227.	1.2	10
3	Dual Randomized Coordinate Descent Method for Solving a Class of Nonconvex Problems. SIAM Journal on Optimization, 2021, 31, 1877-1896.	1.2	1
4	Necessary conditions for linear convergence of iterated expansive, set-valued mappings. Mathematical Programming, 2020, 180, 1-31.	1.6	23
5	Finding Second-Order Stationary Points in Constrained Minimization: A Feasible Direction Approach. Journal of Optimization Theory and Applications, 2020, 186, 480-503.	0.8	5
6	Novel Proximal Gradient Methods for Nonnegative Matrix Factorization with Sparsity Constraints. SIAM Journal on Imaging Sciences, 2020, 13, 381-421.	1.3	11
7	A non-Euclidean gradient descent method with sketching for unconstrained matrix minimization. Operations Research Letters, 2019, 47, 421-426.	0.5	3
8	Optimization on Spheres: Models and Proximal Algorithms with Computational Performance Comparisons. SIAM Journal on Mathematics of Data Science, 2019, 1, 408-445.	1.0	12
9	Lagrangian methods for composite optimization. Handbook of Numerical Analysis, 2019, , 401-436.	0.9	9
10	On Linear Convergence of Non-Euclidean Gradient Methods without Strong Convexity and Lipschitz Gradient Continuity. Journal of Optimization Theory and Applications, 2019, 182, 1068-1087.	0.8	20
11	Nonconvex Lagrangian-Based Optimization: Monitoring Schemes and Global Convergence. Mathematics of Operations Research, 2018, 43, 1210-1232.	0.8	25
12	First Order Methods Beyond Convexity and Lipschitz Gradient Continuity with Applications to Quadratic Inverse Problems. SIAM Journal on Optimization, 2018, 28, 2131-2151.	1.2	85
13	A simplified view of first order methods for optimization. Mathematical Programming, 2018, 170, 67-96.	1.6	66
14	A simple globally convergent algorithm for the nonsmooth nonconvex single source localization problem. Journal of Global Optimization, 2017, 69, 889-909.	1.1	10
15	A Descent Lemma Beyond Lipschitz Gradient Continuity: First-Order Methods Revisited and Applications. Mathematics of Operations Research, 2017, 42, 330-348.	0.8	159
16	An Alternating Semiproximal Method for Nonconvex Regularized Structured Total Least Squares Problems. SIAM Journal on Matrix Analysis and Applications, 2016, 37, 1129-1150.	0.7	9
17	An optimal variant of Kelley's cutting-plane method. Mathematical Programming, 2016, 160, 321-351.	1.6	16
18	A dual method for minimizing a nonsmooth objective over one smooth inequality constraint. Mathematical Programming, 2016, 159, 137-164.	1.6	5

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19	On the rate of convergence of the proximal alternating linearized minimization algorithm for convex problems. EURO Journal on Computational Optimization, 2016, 4, 27-46.	1.5	15
20	A simple algorithm for a class of nonsmooth convexâ€"concave saddle-point problems. Operations Research Letters, 2015, 43, 209-214.	0.5	57
21	Proximal alternating linearized minimization for nonconvex and nonsmooth problems. Mathematical Programming, 2014, 146, 459-494.	1.6	948
22	A fast dual proximal gradient algorithm for convex minimization and applications. Operations Research Letters, 2014, 42, 1-6.	0.5	64
23	Rate of Convergence Analysis of Decomposition Methods Based on the Proximal Method of Multipliers for Convex Minimization. SIAM Journal on Optimization, 2014, 24, 269-297.	1.2	107
24	Performance of first-order methods for smooth convex minimization: a novel approach. Mathematical Programming, 2014, 145, 451-482.	1.6	96
25	An <formula formulatype="inline"><tex Notation="TeX">$O(1/k)$</tex> </formula> Gradient Method for Network Resource Allocation Problems. IEEE Transactions on Control of Network Systems, 2014, 1, 64-73.	2.4	139
26	Conditional Gradient Algorithmsfor Rank-One Matrix Approximations with a Sparsity Constraint. SIAM Review, 2013, 55, 65-98.	4.2	64
27	Smoothing and First Order Methods: A Unified Framework. SIAM Journal on Optimization, 2012, 22, 557-580.	1.2	189
28	A new semidefinite programming relaxation scheme for a class of quadratic matrix problems. Operations Research Letters, 2012, 40, 298-302.	0.5	10
29	Convex approximations to sparse PCA via Lagrangian duality. Operations Research Letters, 2011, 39, 57-61.	0.5	11
30	A Moving Balls Approximation Method for a Class of Smooth Constrained Minimization Problems. SIAM Journal on Optimization, 2010, 20, 3232-3259.	1.2	17
31	Foreword: Special issue on nonlinear convex optimization and variational inequalities. Mathematical Programming, 2009, 116, 1-3.	1.6	3
32	Projected subgradient methods with non-Euclidean distances for non-differentiable convex minimization and variational inequalities. Mathematical Programming, 2009, 120, 27-48.	1.6	27
33	A convex optimization approach for minimizing the ratio of indefinite quadratic functions over an ellipsoid. Mathematical Programming, 2009, 118, 13-35.	1.6	38
34	Fast Gradient-Based Algorithms for Constrained Total Variation Image Denoising and Deblurring Problems. IEEE Transactions on Image Processing, 2009, 18, 2419-2434.	6.0	1,693
35	A Fast Iterative Shrinkage-Thresholding Algorithm for Linear Inverse Problems. SIAM Journal on Imaging Sciences, 2009, 2, 183-202.	1.3	7,850
36	Gradient-based algorithms with applications to signal-recovery problems. , 2009, , 42-88.		181

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37	A Minimax Chebyshev Estimator for Bounded Error Estimation. IEEE Transactions on Signal Processing, 2008, 56, 1388-1397.	3.2	44
38	Iterative Minimization Schemes for Solving the Single Source Localization Problem. SIAM Journal on Optimization, 2008, 19, 1397-1416.	1.2	41
39	AN OLD-NEW CONCEPT OF CONVEX RISK MEASURES: THE OPTIMIZED CERTAINTY EQUIVALENT. Mathematical Finance, 2007, 17, 449-476.	0.9	253
40	Nonmonotone projected gradient methods based on barrier and Euclidean distances. Computational Optimization and Applications, 2007, 38, 305-327.	0.9	9
41	Finding a Global Optimal Solution for a Quadratically Constrained Fractional Quadratic Problem with Applications to the Regularized Total Least Squares. SIAM Journal on Matrix Analysis and Applications, 2006, 28, 425-445.	0.7	74
42	Interior Gradient and Proximal Methods for Convex and Conic Optimization. SIAM Journal on Optimization, 2006, 16, 697-725.	1.2	165
43	A Linearly Convergent Dual-Based Gradient Projection Algorithm for Quadratically Constrained Convex Minimization. Mathematics of Operations Research, 2006, 31, 398-417.	0.8	7
44	Interior projection-like methods for monotone variational inequalities. Mathematical Programming, 2005, 104, 39-68.	1.6	62
45	Data Driven Similarity Measures for k-Means Like Clustering Algorithms. Information Retrieval, 2005, 8, 331-349.	1.6	13
46	A conditional gradient method with linear rate of convergence for solving convex linear systems. Mathematical Methods of Operations Research, 2004, 59, 235-247.	0.4	37
47	Mirror descent and nonlinear projected subgradient methods for convex optimization. Operations Research Letters, 2003, 31, 167-175.	0.5	594
48	Barrier Operators and Associated Gradient-Like Dynamical Systems for Constrained Minimization Problems. SIAM Journal on Control and Optimization, 2003, 42, 1266-1292.	1.1	26
49	Convergence rate analysis and error bounds for projection algorithms in convex feasibility problems. Optimization Methods and Software, 2003, 18, 377-394.	1.6	19
50	Entropic proximal decomposition methods for convex programs and variational inequalities. Mathematical Programming, 2001, 91, 33-47.	1.6	31
51	A probabilistic result for the max-cut problem on random graphs. Operations Research Letters, 2000, 27, 209-214.	0.5	0
52	Global Optimality Conditions for Quadratic Optimization Problems with Binary Constraints. SIAM Journal on Optimization, 2000, 11, 179-188.	1.2	87
53	Lagrangian Duality and Related Multiplier Methods for Variational Inequality Problems. SIAM Journal on Optimization, 2000, 10, 1097-1115.	1.2	105
54	Interior Proximal and Multiplier Methods Based on Second Order Homogeneous Kernels. Mathematics of Operations Research, 1999, 24, 645-668.	0.8	88

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55	Coupling the Logarithmic-Quadratic Proximal Method and the Block Nonlinear Gauss-Seidel Algorithm for Linearly Constrained Convex Minimization. Lecture Notes in Economics and Mathematical Systems, 1999, , 35-47.	0.3	5
56	An Interior Proximal Algorithm and the Exponential Multiplier Method for Semidefinite Programming. SIAM Journal on Optimization, 1998, 9, 1-13.	1.2	27
57	Sensitivity analysis for a class of robotic grasping quality functionals. Robotica, 1998, 16, 227-235.	1.3	5
58	Convergence of Proximal-Like Algorithms. SIAM Journal on Optimization, 1997, 7, 1069-1083.	1.2	134
59	Experimental validation of an optimization formulation of the human grasping quality sense. Journal of Field Robotics, 1997, 14, 753-766.	0.7	12
60	A Conjugate Duality Scheme Generating a New Class of Differentiable Duals. SIAM Journal on Optimization, 1996, 6, 617-625.	1.2	4
61	Hidden convexity in some nonconvex quadratically constrained quadratic programming. Mathematical Programming, 1996, 72, 51-63.	1.6	99
62	Convergence Rate Analysis of Nonquadratic Proximal Methods for Convex and Linear Programming. Mathematics of Operations Research, 1995, 20, 657-677.	0.8	56
63	Entropy-Like Proximal Methods in Convex Programming. Mathematics of Operations Research, 1994, 19, 790-814.	0.8	114
64	A proximal-based decomposition method for convex minimization problems. Mathematical Programming, 1994, 64, 81-101.	1.6	287
65	Convergence Analysis of a Proximal-Like Minimization Algorithm Using Bregman Functions. SIAM Journal on Optimization, 1993, 3, 538-543.	1.2	284
66	Entropic Proximal Mappings with Applications to Nonlinear Programming. Mathematics of Operations Research, 1992, 17, 670-690.	0.8	174
67	A primal-dual iterative algorithm for a maximum likelihood estimation problem. Computational Statistics and Data Analysis, 1992, 14, 443-456.	0.7	4
68	Certainty equivalents and information measures: Duality and extremal principles. Journal of Mathematical Analysis and Applications, 1991, 157, 211-236.	0.5	30
69	Portfolio theory for the recourse certainty equivalent maximizing investor. Annals of Operations Research, 1991, 31, 479-499.	2.6	14
70	A least-squares-based method for a class of nonsmooth minimization problems with applications in plasticity. Applied Mathematics and Optimization, 1991, 24, 273-288.	0.8	8
71	A geometric property of the least squares solution of linear equations. Linear Algebra and Its Applications, 1990, 139, 165-170.	0.4	32
72	Entropic means. Journal of Mathematical Analysis and Applications, 1989, 139, 537-551.	0.5	32

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73	A simple Duality Proof for Quadratically Constrained Entropy Functionals and Extension to Convex Constraints. SIAM Journal on Applied Mathematics, 1989, 49, 1845-1850.	0.8	5
74	Upper Bounds on the Expected Value of a Convex Function Using Gradient and Conjugate Function Information. Mathematics of Operations Research, 1989, 14, 745-759.	0.8	7
75	Extension of some results for channel capacity using a generalized information measure. Applied Mathematics and Optimization, 1988, 17, 121-132.	0.8	7
76	Expected Utility, Penalty Functions, and Duality in Stochastic Nonlinear Programming. Management Science, 1986, 32, 1445-1466.	2.4	117