Stefania Bellavia

List of Publications by Year
in descending order

40 papers	636 citations	687363 13 h-index	610901 24 g-index
40 all docs	40 docs citations	40 times ranked	353 citing authors

#	Article	IF	Citations
1	An affine scaling trust-region approach to bound-constrained nonlinear systems. Applied Numerical Mathematics, 2003, 44, 257-280.	2.1	87
2	A Globally Convergent Newton-GMRES Subspace Method for Systems of Nonlinear Equations. SIAM Journal of Scientific Computing, 2001, 23, 940-960.	2.8	64
3	STRSCNE: A Scaled Trust-Region Solver for Constrained Nonlinear Equations. Computational Optimization and Applications, 2004, 28, 31-50.	1.6	51
4	An interior point Newton-like method for non-negative least-squares problems with degenerate solution. Numerical Linear Algebra With Applications, 2006, 13, 825-846.	1.6	36
5	A Levenberg–Marquardt method for large nonlinear least-squares problems with dynamic accuracy in functions and gradients. Numerische Mathematik, 2018, 140, 791-825.	1.9	32
6	Subspace Trust‐Region Methods for Large Bound‐Constrained Nonlinear Equations. SIAM Journal on Numerical Analysis, 2006, 44, 1535-1555.	2.3	29
7	Nonsymmetric Preconditioner Updates in Newton–Krylov Methods for Nonlinear Systems. SIAM Journal of Scientific Computing, 2011, 33, 2595-2619.	2.8	28
8	Efficient Preconditioner Updates for Shifted Linear Systems. SIAM Journal of Scientific Computing, 2011, 33, 1785-1809.	2.8	26
9	Adaptive Regularization Algorithms with Inexact Evaluations for Nonconvex Optimization. SIAM Journal on Optimization, 2019, 29, 2881-2915.	2.0	25
10	A Matrix-Free Preconditioner for Sparse Symmetric Positive Definite Systems and Least-Squares Problems. SIAM Journal of Scientific Computing, 2013, 35, A192-A211.	2.8	24
11	An interior global method for nonlinear systems with simple bounds. Optimization Methods and Software, 2005, 20, 453-474.	2.4	19
12	A Preconditioning Framework for Sequences of Diagonally Modified Linear Systems Arising in Optimization. SIAM Journal on Numerical Analysis, 2012, 50, 3280-3302.	2.3	19
13	Constrained Dogleg methods for nonlinear systems with simple bounds. Computational Optimization and Applications, 2012, 53, 771-794.	1.6	19
14	Adaptive cubic regularization methods with dynamic inexact Hessian information and applications to finite-sum minimization. IMA Journal of Numerical Analysis, 2021, 41, 764-799.	2.9	17
15	Subsampled inexact Newton methods for minimizing large sums of convex functions. IMA Journal of Numerical Analysis, 2020, 40, 2309-2341.	2.9	14
16	New updates of incomplete LU factorizations and applications to large nonlinear systems. Optimization Methods and Software, 2014, 29, 321-340.	2.4	13
17	Strong local convergence properties of adaptive regularized methods for nonlinear least squares. IMA Journal of Numerical Analysis, 2015, 35, 947-968.	2.9	13
18	Updating Constraint Preconditioners for KKT Systems in Quadratic Programming Via Low-Rank Corrections. SIAM Journal on Optimization, 2015, 25, 1787-1808.	2.0	12

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19	Inexact restoration with subsampled trust-region methods for finite-sum minimization. Computational Optimization and Applications, 2020, 76, 701-736.	1.6	12
20	Globalization strategies for Newton–Krylov methods for stabilized FEM discretization of Navier–Stokes equations. Journal of Computational Physics, 2007, 226, 2317-2340.	3.8	10
21	Stochastic analysis of an adaptive cubic regularization method under inexact gradient evaluations and dynamic Hessian accuracy. Optimization, 2022, 71, 227-261.	1.7	10
22	Sequential linear programming and particle swarm optimization for the optimization of energy districts. Engineering Optimization, 2019, 51, 84-100.	2.6	9
23	On affine-scaling inexact dogleg methods for bound-constrained nonlinear systems. Optimization Methods and Software, 2015, 30, 276-300.	2.4	8
24	On an adaptive regularization for ill-posed nonlinear systems and its trust-region implementation. Computational Optimization and Applications, 2016, 64, 1-30.	1.6	8
25	An inexact dual logarithmic barrier method for solving sparse semidefinite programs. Mathematical Programming, 2019, 178, 109-143.	2.4	8
26	An inexact interior point method for monotone NCP. Optimization Methods and Software, 1999, 11, 211-241.	2.4	7
27	On the update of constraint preconditioners for regularized KKT systems. Computational Optimization and Applications, 2016, 65, 339-360.	1.6	7
28	Regularization and preconditioning of KKT systems arising in nonnegative least–squares problems. Numerical Linear Algebra With Applications, 2009, 16, 39-61.	1.6	6
29	On an Elliptical Trust-Region Procedure for Ill-Posed Nonlinear Least-Squares Problems. Journal of Optimization Theory and Applications, 2018, 178, 824-859.	1.5	5
30	Global convergence enhancement of classical linesearch interior point methods for MCPs. Journal of Computational and Applied Mathematics, 2003, 151, 171-199.	2.0	4
31	Convergence Analysis of an Inexact Infeasible Interior Point Method for Semidefinite Programming. Computational Optimization and Applications, 2004, 29, 289-313.	1.6	4
32	A Relaxed Interior Point Method for Low-Rank Semidefinite Programming Problems with Applications to Matrix Completion. Journal of Scientific Computing, 2021, 89, 46.	2.3	4
33	Computational experience with numerical methods for nonnegative least-squares problems. Numerical Linear Algebra With Applications, 2011, 18, 363-385.	1.6	2
34	Inexact Newton methods for model simulation. International Journal of Computer Mathematics, 2011, 88, 2969-2987.	1.8	1
35	An inexact non stationary Tikhonov procedure for large-scale nonlinear ill-posed problems. Inverse Problems, 2020, 36, 095007.	2.0	1
36	Subsampled First-Order Optimization Methods with Applications in Imaging. , 2021, , 1-35.		1

#	Article	IF	Citations
37	Quadratic and Cubic Regularisation Methods with Inexact function and Random Derivatives for Finite-Sum Minimisation. , 2021, , .		1
38	Numerical solution of KKT systems in PDE-constrained optimization problems via the affine scaling trust-region approachâ€. International Journal of Computer Mathematics, 2009, 86, 2122-2142.	1.8	0
39	PRECONDITIONING ISSUES IN THE NUMERICAL SOLUTION OF NONLINEAR EQUATIONS AND NONLINEAR LEAST SQUARES. Pesquisa Operacional, 2014, 34, 421-445.	0.4	0
40	Regularized Quadratic Penalty Methods for Shape from Shading. Mediterranean Journal of Mathematics, 2017, 14, 1.	0.8	0