James G Nagy

List of Publications by Year
in descending order

55 papers	2,196 citations	279487 23 h-index	288905 40 g-index
56 all docs	56 docs citations	56 times ranked	1421 citing authors

#	Article	IF	Citations
1	Minimizing L ₁ over L ₂ norms on the gradient. Inverse Problems, 2022, 38, 065011.	1.0	7
2	Fast Deterministic Approximation of Symmetric Indefinite Kernel Matrices with High Dimensional Datasets. SIAM Journal on Matrix Analysis and Applications, 2022, 43, 1003-1028.	0.7	5
3	An effective alternating direction method of multipliers for color image restoration. Applied Numerical Mathematics, 2021, 164, 43-56.	1.2	7
4	Limited-Angle CT Reconstruction via the L_1/L_2 Minimization. SIAM Journal on Imaging Sciences, 2021, 14, 749-777.	1.3	29
5	Iteratively Reweighted FGMRES and FLSQR for Sparse Reconstruction. SIAM Journal of Scientific Computing, 2021, 43, S47-S69.	1.3	6
6	An ADMM-LAP method for total variation myopic deconvolution of adaptive optics retinal images. Inverse Problems, 2021, 37, 014001.	1.0	1
7	Semi-blind sparse affine spectral unmixing of autofluorescence-contaminated micrographs. Bioinformatics, 2020, 36, 910-917.	1.8	10
8	Structured FISTA for image restoration. Numerical Linear Algebra With Applications, 2020, 27, e2278.	0.9	4
9	Krylov Methods for Low-Rank Regularization. SIAM Journal on Matrix Analysis and Applications, 2020, 41, 1477-1504.	0.7	3
10	Iodine quantification in limited angle tomography. Medical Physics, 2020, 47, 4906-4916.	1.6	0
11	An innerâ€“outer iterative method for edge preservation in image restoration and reconstruction [*]. Inverse Problems, 2020, 36, 124004.	1.0	7
12	IR Tools: a MATLAB package of iterative regularization methods and large-scale test problems. Numerical Algorithms, 2019, 81, 773-811.	1.1	89
13	Nonlinear optimization for mixed attenuation polyenergetic image reconstruction. Inverse Problems, 2019, 35, 064004.	1.0	5
14	An alternating direction method of multipliers for the solution of matrix equations arising in inverse problems. Numerical Linear Algebra With Applications, 2018, 25, e2123.	0.9	4
15	Singular Value Decomposition Approximation via Kronecker Summations for Imaging Applications. SIAM Journal on Matrix Analysis and Applications, 2018, 39, 1836-1857.	0.7	6
16	Robust regression for mixed Poissonâ€“Gaussian model. Numerical Algorithms, 2018, 79, 825-851.	1.1	6
17	A scaled gradient method for digital tomographic image reconstruction. Inverse Problems and Imaging, 2018, 12, 239-259.	0.6	7
18	LAP: A Linearize and Project Method for Solving Inverse Problems with Coupled Variables. Sampling Theory in Signal and Information Processing, 2018, 17, 127-151.	0.2	4

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19	High-resolution speckle imaging through strong atmospheric turbulence. Optics Express, 2016, 24, 12116.	1.7	25
20	Deblurring and Sparse Unmixing of Hyperspectral Images Using Multiple Point Spread Functions. SIAM Journal of Scientific Computing, 2015, 37, S389-S406.	1.3	10
21	Estimation of atmospheric PSF parameters for hyperspectral imaging. Numerical Linear Algebra With Applications, 2015, 22, 795-813.	0.9	3
22	Dedication to Robert J. Plemmons. Numerical Linear Algebra With Applications, 2015, 22, 793-794.	0.9	0
23	Generalized Arnoldi–Tikhonov Method for Sparse Reconstruction. SIAM Journal of Scientific Computing, 2014, 36, B225-B247.	1.3	42
24	Constrained numerical optimization methods for blind deconvolution. Numerical Algorithms, 2014, 65, 23-42.	1.1	24
25	Iterative Methods for Image Restoration. Academic Press Library in Signal Processing, 2014, 4, 193-247.	0.8	24
26	Rotational image deblurring with sparse matrices. BIT Numerical Mathematics, 2014, 54, 649-671.	1.0	6
27	Iterative Wavefront Reconstruction for Astronomical Imaging. SIAM Journal of Scientific Computing, 2013, 35, S84-S103.	1.3	16
28	Iterative Breast Tomosynthesis Image Reconstruction. SIAM Journal of Scientific Computing, 2013, 35, S192-S208.	1.3	7
29	An efficient computational approach for multiframe blind deconvolution. Journal of Computational and Applied Mathematics, 2012, 236, 2112-2125.	1.1	5
30	Structured linear algebra problems in adaptive optics imaging. Advances in Computational Mathematics, 2011, 35, 103-117.	0.8	17
31	Synthetic boundary conditions for image deblurring. Linear Algebra and Its Applications, 2011, 434, 2244-2268.	0.4	33
32	Large-Scale Inverse Problems in Imaging. , 2011, , 43-86.		11
33	Numerical Algorithms for Polyenergetic Digital Breast Tomosynthesis Reconstruction. SIAM Journal on Imaging Sciences, 2010, 3, 133-152.	1.3	25
34	Parallel Colt. ACM Transactions on Mathematical Software, 2010, 37, 1-22.	1.6	29
35	An Efficient Iterative Approach for Large-Scale Separable Nonlinear Inverse Problems. SIAM Journal of Scientific Computing, 2010, 31, 4654-4674.	1.3	51
36	Kronecker product approximation for preconditioning in three-dimensional imaging applications. IEEE Transactions on Image Processing, 2006, 15, 604-613.	6.0	36

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37	Covariance-Preconditioned Iterative Methods for Nonnegatively Constrained Astronomical Imaging. SIAM Journal on Matrix Analysis and Applications, 2006, 27, 1184-1197.	0.7	51
38	A computational method for the restoration of images with an unknown, spatially-varying blur. Optics Express, 2006, 14, 1767.	1.7	67
39	Numerical methods for coupled super-resolution. Inverse Problems, 2006, 22, 1261-1272.	1.0	73
40	Iterative Methods for Image Deblurring: A Matlab Object-Oriented Approach. Numerical Algorithms, 2004, 36, 73-93.	1.1	152
41	Kronecker Product Approximations forImage Restoration with Reflexive Boundary Conditions. SIAM Journal on Matrix Analysis and Applications, 2003, 25, 829-841.	0.7	40
42	Quasi-Newton approach to nonnegative image restorations. Linear Algebra and Its Applications, 2000, 316, 223-236.	0.4	65
43	<title>Enforcing nonnegativity in image reconstruction algorithms</title>. , 2000, , .		64
44	Optimal Kronecker Product Approximation of Block Toeplitz Matrices. SIAM Journal on Matrix Analysis and Applications, 2000, 22, 155-172.	0.7	50
45	A total least squares method for Toeplitz systems of equations. BIT Numerical Mathematics, 1998, 38, 560-582.	1.0	17
46	Kronecker product and SVD approximations in image restoration. Linear Algebra and Its Applications, 1998, 284, 177-192.	0.4	72
47	Inverse Toeplitz preconditioners for ill-posed problems. Linear Algebra and Its Applications, 1998, 284, 137-156.	0.4	28
48	Restoring Images Degraded by Spatially Variant Blur. SIAM Journal of Scientific Computing, 1998, 19, 1063-1082.	1.3	171
49	Space-varying restoration of optical images. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1997, 14, 3162.	0.8	24
50	Degradation reduction in optics imagery using Toeplitz structure. Calcolo, 1996, 33, 269-288.	0.6	2
51	Restoration of atmospherically blurred images by symmetric indefinite conjugate gradient techniques. Inverse Problems, 1996, 12, 157-173.	1.0	86
52	Toeplitz approximate inverse preconditioner for banded Toeplitz matrices. Numerical Algorithms, 1994, 7, 183-199.	1.1	24
53	Circulant Preconditioned Toeplitz Least Squares Iterations. SIAM Journal on Matrix Analysis and Applications, 1994, 15, 80-97.	0.7	54
54	Fast Inverse QR Factorization for Toeplitz Matrices. SIAM Journal of Scientific Computing, 1993, 14, 1174-1193.	1.3	21

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55	FFT-Based Preconditioners for Toeplitz-Block Least Squares Problems. SIAM Journal on Numerical Analysis, 1993, 30, 1740-1768.	1.1	94