Peter Maass

List of Publications by Year
in descending order

83 papers	2,839 citations	201674 27 h-index	182427 51 g-index
85 all docs	85 docs citations	85 times ranked	2434 citing authors

#	Article	IF	Citations
1	Quantitative Comparison of Deep Learning-Based Image Reconstruction Methods for Low-Dose and Sparse-Angle CT Applications. Journal of Imaging, 2021, 7, 44.	3.0	24
2	Deeply Supervised UNet for Semantic Segmentation to Assist Dermatopathological Assessment of Basal Cell Carcinoma. Journal of Imaging, 2021, 7, 71.	3.0	35
3	Error analysis for filtered back projection reconstructions in Besov spaces. Inverse Problems, 2021, 37, 014002.	2.0	6
4	Conditional Invertible Neural Networks for Medical Imaging. Journal of Imaging, 2021, 7, 243.	3.0	25
5	Regularization by Architecture: A Deep Prior Approach for Inverse Problems. Journal of Mathematical Imaging and Vision, 2020, 62, 456-470.	1.3	56
6	Mathematical aspects of catalyst positioning in lithium/air batteries. Inverse Problems, 2020, 36, 044001.	2.0	0
7	Joint super-resolution image reconstruction and parameter identification in imaging operator: analysis of bilinear operator equations, numerical solution, and application to magnetic particle imaging. Inverse Problems, 2020, 36, 124006.	2.0	7
8	Solving inverse problems using data-driven models. Acta Numerica, 2019, 28, 1-174.	10.7	359
9	Inverting Prediction Models in Micro Production for Process Design. MATEC Web of Conferences, 2018, 190, 15007.	0.2	1
10	A Survey on Surrogate Approaches to Non-negative Matrix Factorization. Vietnam Journal of Mathematics, 2018, 46, 987-1021.	0.8	4
11	Tikhonov Functionals Incorporating Tolerances. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 703-704.	0.2	1
12	Atmospheric inverse modeling via sparse reconstruction. Geoscientific Model Development, 2017, 10, 3695-3713.	3.6	6
13	An approach to optimize sample preparation for MALDI imaging MS of FFPE sections using fractional factorial design of experiments. Analytical and Bioanalytical Chemistry, 2016, 408, 6729-6740.	3.7	20
14	Proteomic Analysis of the Spatio-temporal Based Molecular Kinetics of Acute Spinal Cord Injury Identifies a Time- and Segment-specific Window for Effective Tissue Repair. Molecular and Cellular Proteomics, 2016, 15, 2641-2670.	3.8	42
15	Descent gradient methods for nonsmooth minimization problems in ill-posed problems. Journal of Computational and Applied Mathematics, 2016, 298, 105-122.	2.0	15
16	Benchmark datasets for 3D MALDI- and DESI-imaging mass spectrometry. GigaScience, 2015, 4, 20.	6.4	53
17	Optimization of Catalytically Active Sites Positioning in Porous Cathodes of Lithium/Air Batteries Filled with Different Electrolytes. Journal of the Electrochemical Society, 2015, 162, A2796-A2804.	2.9	16
18	Prediction of Temperature Induced Shape Deviations in dry Milling. Procedia CIRP, 2015, 31, 340-345.	1.9	16

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19	Least-squares Based Parameter Identification for a Function-related Surface Optimisation in Micro Ball-end Milling. Procedia CIRP, 2015, 31, 276-281.	1.9	6
20	Regularizing properties of the Mumford–Shah functional for imaging applications. Inverse Problems, 2014, 30, 035007.	2.0	26
21	Sparse 3D reconstructions in electrical impedance tomography using real data. Inverse Problems in Science and Engineering, 2014, 22, 31-44.	1.2	22
22	Identification of the specific cutting force for geometrically defined cutting edges and varying cutting conditions. International Journal of Machine Tools and Manufacture, 2014, 82-83, 42-49.	13.4	25
23	Signal representation, uncertainty principles and localization measures. Advances in Computational Mathematics, 2014, 40, 597-607.	1.6	0
24	Numerical experiments with MALDI Imaging data. Advances in Computational Mathematics, 2014, 40, 667-682.	1.6	7
25	2D and 3D MALDI-imaging: Conceptual strategies for visualization and data mining. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 117-137.	2.3	66
26	MRI-compatible pipeline for three-dimensional MALDI imaging mass spectrometry using PAXgene fixation. Journal of Proteomics, 2013, 90, 52-60.	2.4	58
27	Semismooth Newton and quasi-Newton methods in weighted ℓ^1-regularization. Journal of Inverse and Ill-Posed Problems, 2013, 21, 665-693.	1.0	12
28	Image Denoising and Quality Inspection of Micro Components Using Perona-Malik Diffusion. Procedia CIRP, 2013, 8, 432-437.	1.9	0
29	Compressed sensing in imaging mass spectrometry. Inverse Problems, 2013, 29, 125015.	2.0	13
30	An analysis of electrical impedance tomography with applications to Tikhonov regularization. ESAIM - Control, Optimisation and Calculus of Variations, 2012, 18, 1027-1048.	1.3	41
31	Norm sensitivity of sparsity regularization with respect to p. Inverse Problems, 2012, 28, 104009.	2.0	3
32	Magnification of Label Maps With a Topology-Preserving Level-Set Method. IEEE Transactions on Image Processing, 2012, 21, 4040-4053.	9.8	3
33	A Review of Some Modern Approaches to the Problem of Trend Extraction. Econometric Reviews, 2012, 31, 593-624.	1.1	93
34	Exploring Three-Dimensional Matrix-Assisted Laser Desorption/Ionization Imaging Mass Spectrometry Data: Three-Dimensional Spatial Segmentation of Mouse Kidney. Analytical Chemistry, 2012, 84, 6079-6087.	6.5	122
35	An adaptive wavelet solver for a nonlinear parameter identification problem for a parabolic differential equation with sparsity constraints. Journal of Inverse and Ill-Posed Problems, 2012, 20, .	1.0	1
36	Sparsity reconstruction in electrical impedance tomography: An experimental evaluation. Journal of Computational and Applied Mathematics, 2012, 236, 2126-2136.	2.0	70

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37	A reconstruction algorithm for electrical impedance tomography based on sparsity regularization. International Journal for Numerical Methods in Engineering, 2012, 89, 337-353.	2.8	102
38	Super-resolution segmentation of imaging mass spectrometry data: Solving the issue of low lateral resolution. Journal of Proteomics, 2011, 75, 237-245.	2.4	28
39	Function spaces and optimal currents in impedance tomography. Journal of Inverse and Ill-Posed Problems, 2011, 19, 25-48.	1.0	5
40	Modeling the influence of unbalances for ultra-precision cutting processes. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2011, 91, 795-808.	1.6	5
41	Do Uncertainty Minimizers Attain Minimal Uncertainty?. Journal of Fourier Analysis and Applications, 2010, 16, 448-469.	1.0	12
42	Adaptive wavelet methods and sparsity reconstruction for inverse heat conduction problems. Advances in Computational Mathematics, 2010, 33, 385-411.	1.6	18
43	A regularized solution for the inverse conductivity problem using mollifiers. Inverse Problems in Science and Engineering, 2010, 18, 145-161.	1.2	0
44	Spatial Segmentation of Imaging Mass Spectrometry Data with Edge-Preserving Image Denoising and Clustering. Journal of Proteome Research, 2010, 9, 6535-6546.	3.7	174
45	Iterated soft shrinkage with adaptive operator evaluations. Journal of Inverse and Ill-Posed Problems, 2009, 17, .	1.0	3
46	The asymptotic behaviour of weak solutions to the forward problem of electrical impedance tomography on unbounded three€dimensional domains. Mathematical Methods in the Applied Sciences, 2009, 32, 206-222.	2.3	1
47	Support vector classification of proteomic profile spectra based on feature extraction with the bi-orthogonal discrete wavelet transform. Computing and Visualization in Science, 2009, 12, 189-199.	1.2	17
48	A generalized conditional gradient method and its connection to an iterative shrinkage method. Computational Optimization and Applications, 2009, 42, 173-193.	1.6	73
49	Mathematical model of micro turning process. International Journal of Advanced Manufacturing Technology, 2009, 45, 33-40.	3.0	40
50	Delay-range-dependent exponential $H\hat{}\check{z}$ synchronization of a class of delayed neural networks. Chaos, Solitons and Fractals, 2009, 41, 1125-1135.	5.1	113
51	Mathematical models for surface characterization of machining processes. Microsystem Technologies, 2008, 14, 1989-1993.	2.0	2
52	Condition monitoring of linear guideways using a matched wavelet approach. Signal Processing, 2008, 88, 1656-1670.	3.7	1
53	THE UNCERTAINTY PRINCIPLE ASSOCIATED WITH THE CONTINUOUS SHEARLET TRANSFORM. International Journal of Wavelets, Multiresolution and Information Processing, 2008, 06, 157-181.	1.3	100
54	Minimization of Tikhonov Functionals in Banach Spaces. Abstract and Applied Analysis, 2008, 2008, 1-19.	0.7	45

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55	A convex optimisation approach to robust observer-based H<SUB align=right>∞ control design of linear parameter-varying delayed systems. International Journal of Modelling, Identification and Control, 2008, 4, 226.	0.2	5
56	Shrinkage versus deconvolution. Inverse Problems, 2007, 23, 2231-2248.	2.0	20
57	A generalized conditional gradient method for nonlinear operator equations with sparsity constraints. Inverse Problems, 2007, 23, 2041-2058.	2.0	56
58	Inverse imbalance reconstruction in rotordynamics. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2006, 86, 385-399.	1.6	7
59	Mathematical concepts of multiscale smoothing. Applied and Computational Harmonic Analysis, 2005, 19, 141-161.	2.2	18
60	Nonlinear inverse unbalance reconstruction in rotor dynamics. Inverse Problems in Science and Engineering, 2005, 13, 507-543.	1.2	13
61	Reconstruction of Radar Reflectivity Densities in a Narrowband Regime. IEEE Transactions on Antennas and Propagation, 2004, 52, 1603-1606.	5.1	1
62	Reconstruction of Wideband Reflectivity Densities by Wavelet Transforms. Advances in Computational Mathematics, 2003, 18, 189-209.	1.6	3
63	Tikhonov regularization for electrical impedance tomography on unbounded domains. Inverse Problems, 2003, 19, 585-610.	2.0	60
64	AN OUTLINE OF ADAPTIVE WAVELET GALERKIN METHODS FOR TIKHONOV REGULARIZATION OF INVERSE PARABOLIC PROBLEMS. , 2003, , .		5
65	A two-layered wavelet-based algorithm for efficient lossless and lossy image compression. IEEE Transactions on Circuits and Systems for Video Technology, 2000, 10, 1094-1102.	8.3	38
66	Detection and classification of material attributes-a practical application of wavelet analysis. IEEE Transactions on Signal Processing, 2000, 48, 2432-2438.	5.3	9
67	Fast CG-Based Methods for Tikhonov--Phillips Regularization. SIAM Journal of Scientific Computing, 1999, 20, 1831-1850.	2.8	85
68	A new approach to interpolating scaling functions. Applicable Analysis, 1999, 72, 485-500.	1.3	23
69	Wavelet Versus JPEG (Joint Photographic Expert Group) and Fractal Compression. Investigative Radiology, 1998, 33, 456-463.	6.2	27
70	Interpolating refinable functions and wavelets for general scaling. Numerical Functional Analysis and Optimization, 1997, 18, 521-539.	1.4	10
71	Families of Orthogonal Two-Dimensional Wavelets. SIAM Journal on Mathematical Analysis, 1996, 27, 1454-1481.	1.9	18
72	Wavelet-accelerated regularization methods for hyperthermia treatment planning. International Journal of Imaging Systems and Technology, 1996, 7, 191-199.	4.1	5

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73	The Affine uncertainty principle in one and two dimensions. Computers and Mathematics With Applications, 1995, 30, 293-305.	2.7	40
74	Contour reconstruction in 3-D X-ray CT. IEEE Transactions on Medical Imaging, 1993, 12, 764-769.	8.9	49
75	The Interior Radon Transform. SIAM Journal on Applied Mathematics, 1992, 52, 710-724.	1.8	82
76	Tomographic methods for 2D reconstruction with the double crystal diffractometer. IMPACT of Computing in Science and Engineering, 1992, 4, 250-268.	0.8	8
77	Singular value decompositions for Radon transforms. Lecture Notes in Mathematics, 1991, , 6-14.	0.2	9
78	High-resolution neutron small-angle scattering with a double-crystal diffractometer and 2D reconstruction. Physica B: Condensed Matter, 1991, 174, 532-536.	2.7	8
79	Smoothed projection methods for the moment problem. Numerische Mathematik, 1991, 59, 277-294.	1.9	15
80	A mollifier method for linear operator equations of the first kind. Inverse Problems, 1990, 6, 427-440.	2.0	155
81	Wideband radar: the hyp transform. Inverse Problems, 1989, 5, 849-857.	2.0	12
82	The x-ray transform: singular value decomposition and resolution. Inverse Problems, 1987, 3, 729-741.	2.0	53
83	Numerical methods for singular nonlinear integro-differential equations. Applied Numerical Mathematics, 1987, 3, 243-256.	2.1	12