

# Peter Maass

## List of Publications by Year in descending order

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83  
papers

2,839  
citations

230014

27  
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206121

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85  
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85  
docs citations

85  
times ranked

2731  
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantitative Comparison of Deep Learning-Based Image Reconstruction Methods for Low-Dose and Sparse-Angle CT Applications. <i>Journal of Imaging</i> , 2021, 7, 44.	1.7	24
2	Deeply Supervised UNet for Semantic Segmentation to Assist Dermatopathological Assessment of Basal Cell Carcinoma. <i>Journal of Imaging</i> , 2021, 7, 71.	1.7	35
3	Error analysis for filtered back projection reconstructions in Besov spaces. <i>Inverse Problems</i> , 2021, 37, 014002.	1.0	6
4	Conditional Invertible Neural Networks for Medical Imaging. <i>Journal of Imaging</i> , 2021, 7, 243.	1.7	25
5	Regularization by Architecture: A Deep Prior Approach for Inverse Problems. <i>Journal of Mathematical Imaging and Vision</i> , 2020, 62, 456-470.	0.8	56
6	Mathematical aspects of catalyst positioning in lithium/air batteries. <i>Inverse Problems</i> , 2020, 36, 044001.	1.0	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. <i>Inverse Problems</i> , 2020, 36, 124006.	1.0	7
8	Solving inverse problems using data-driven models. <i>Acta Numerica</i> , 2019, 28, 1-174.	6.3	359
9	Inverting Prediction Models in Micro Production for Process Design. <i>MATEC Web of Conferences</i> , 2018, 190, 15007.	0.1	1
10	A Survey on Surrogate Approaches to Non-negative Matrix Factorization. <i>Vietnam Journal of Mathematics</i> , 2018, 46, 987-1021.	0.4	4
11	Tikhonov Functionals Incorporating Tolerances. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2017, 17, 703-704.	0.2	1
12	Atmospheric inverse modeling via sparse reconstruction. <i>Geoscientific Model Development</i> , 2017, 10, 3695-3713.	1.3	6
13	An approach to optimize sample preparation for MALDI imaging MS of FFPE sections using fractional factorial design of experiments. <i>Analytical and Bioanalytical Chemistry</i> , 2016, 408, 6729-6740.	1.9	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. <i>Molecular and Cellular Proteomics</i> , 2016, 15, 2641-2670.	2.5	42
15	Descent gradient methods for nonsmooth minimization problems in ill-posed problems. <i>Journal of Computational and Applied Mathematics</i> , 2016, 298, 105-122.	1.1	15
16	Benchmark datasets for 3D MALDI- and DESI-imaging mass spectrometry. <i>GigaScience</i> , 2015, 4, 20.	3.3	53
17	Optimization of Catalytically Active Sites Positioning in Porous Cathodes of Lithium/Air Batteries Filled with Different Electrolytes. <i>Journal of the Electrochemical Society</i> , 2015, 162, A2796-A2804.	1.3	16
18	Prediction of Temperature Induced Shape Deviations in dry Milling. <i>Procedia CIRP</i> , 2015, 31, 340-345.	1.0	16

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19	Least-squares Based Parameter Identification for a Function-related Surface Optimisation in Micro Ball-end Milling. <i>Procedia CIRP</i> , 2015, 31, 276-281.	1.0	6
20	Regularizing properties of the Mumford-Shah functional for imaging applications. <i>Inverse Problems</i> , 2014, 30, 035007.	1.0	26
21	Sparse 3D reconstructions in electrical impedance tomography using real data. <i>Inverse Problems in Science and Engineering</i> , 2014, 22, 31-44.	1.2	22
22	Identification of the specific cutting force for geometrically defined cutting edges and varying cutting conditions. <i>International Journal of Machine Tools and Manufacture</i> , 2014, 82-83, 42-49.	6.2	25
23	Signal representation, uncertainty principles and localization measures. <i>Advances in Computational Mathematics</i> , 2014, 40, 597-607.	0.8	0
24	Numerical experiments with MALDI Imaging data. <i>Advances in Computational Mathematics</i> , 2014, 40, 667-682.	0.8	7
25	2D and 3D MALDI-imaging: Conceptual strategies for visualization and data mining. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2014, 1844, 117-137.	1.1	66
26	MRI-compatible pipeline for three-dimensional MALDI imaging mass spectrometry using PAXgene fixation. <i>Journal of Proteomics</i> , 2013, 90, 52-60.	1.2	58
27	Semismooth Newton and quasi-Newton methods in weighted $\ell_1$ -regularization. <i>Journal of Inverse and Ill-Posed Problems</i> , 2013, 21, 665-693.	0.5	12
28	Image Denoising and Quality Inspection of Micro Components Using Perona-Malik Diffusion. <i>Procedia CIRP</i> , 2013, 8, 432-437.	1.0	0
29	Compressed sensing in imaging mass spectrometry. <i>Inverse Problems</i> , 2013, 29, 125015.	1.0	13
30	An analysis of electrical impedance tomography with applications to Tikhonov regularization. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2012, 18, 1027-1048.	0.7	41
31	Norm sensitivity of sparsity regularization with respect to $p$ . <i>Inverse Problems</i> , 2012, 28, 104009.	1.0	3
32	Magnification of Label Maps With a Topology-Preserving Level-Set Method. <i>IEEE Transactions on Image Processing</i> , 2012, 21, 4040-4053.	6.0	3
33	A Review of Some Modern Approaches to the Problem of Trend Extraction. <i>Econometric Reviews</i> , 2012, 31, 593-624.	0.5	93
34	Exploring Three-Dimensional Matrix-Assisted Laser Desorption/Ionization Imaging Mass Spectrometry Data: Three-Dimensional Spatial Segmentation of Mouse Kidney. <i>Analytical Chemistry</i> , 2012, 84, 6079-6087.	3.2	122
35	An adaptive wavelet solver for a nonlinear parameter identification problem for a parabolic differential equation with sparsity constraints. <i>Journal of Inverse and Ill-Posed Problems</i> , 2012, 20, .	0.5	1
36	Sparsity reconstruction in electrical impedance tomography: An experimental evaluation. <i>Journal of Computational and Applied Mathematics</i> , 2012, 236, 2126-2136.	1.1	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.	1.5	102
38	Super-resolution segmentation of imaging mass spectrometry data: Solving the issue of low lateral resolution. Journal of Proteomics, 2011, 75, 237-245.	1.2	28
39	Function spaces and optimal currents in impedance tomography. Journal of Inverse and Ill-Posed Problems, 2011, 19, 25-48.	0.5	5
40	Modeling the influence of unbalances for ultra-precision cutting processes. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2011, 91, 795-808.	0.9	5
41	Do Uncertainty Minimizers Attain Minimal Uncertainty?. Journal of Fourier Analysis and Applications, 2010, 16, 448-469.	0.5	12
42	Adaptive wavelet methods and sparsity reconstruction for inverse heat conduction problems. Advances in Computational Mathematics, 2010, 33, 385-411.	0.8	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.	1.8	174
45	Iterated soft shrinkage with adaptive operator evaluations. Journal of Inverse and Ill-Posed Problems, 2009, 17, .	0.5	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.	1.2	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.	0.9	73
49	Mathematical model of micro turning process. International Journal of Advanced Manufacturing Technology, 2009, 45, 33-40.	1.5	40
50	Delay-range-dependent exponential H $\infty$ synchronization of a class of delayed neural networks. Chaos, Solitons and Fractals, 2009, 41, 1125-1135.	2.5	113
51	Mathematical models for surface characterization of machining processes. Microsystem Technologies, 2008, 14, 1989-1993.	1.2	2
52	Condition monitoring of linear guideways using a matched wavelet approach. Signal Processing, 2008, 88, 1656-1670.	2.1	1
53	THE UNCERTAINTY PRINCIPLE ASSOCIATED WITH THE CONTINUOUS SHEARLET TRANSFORM. International Journal of Wavelets, Multiresolution and Information Processing, 2008, 06, 157-181.	0.9	100
54	Minimization of Tikhonov Functionals in Banach Spaces. Abstract and Applied Analysis, 2008, 2008, 1-19.	0.3	45

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55	A convex optimisation approach to robust observer-based $H_\infty$ 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.	1.0	20
57	A generalized conditional gradient method for nonlinear operator equations with sparsity constraints. Inverse Problems, 2007, 23, 2041-2058.	1.0	56
58	Inverse imbalance reconstruction in rotordynamics. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2006, 86, 385-399.	0.9	7
59	Mathematical concepts of multiscale smoothing. Applied and Computational Harmonic Analysis, 2005, 19, 141-161.	1.1	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.	3.1	1
62	Reconstruction of Wideband Reflectivity Densities by Wavelet Transforms. Advances in Computational Mathematics, 2003, 18, 189-209.	0.8	3
63	Tikhonov regularization for electrical impedance tomography on unbounded domains. Inverse Problems, 2003, 19, 585-610.	1.0	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.	5.6	38
66	Detection and classification of material attributes-a practical application of wavelet analysis. IEEE Transactions on Signal Processing, 2000, 48, 2432-2438.	3.2	9
67	Fast CG-Based Methods for Tikhonov-Phillips Regularization. SIAM Journal of Scientific Computing, 1999, 20, 1831-1850.	1.3	85
68	A new approach to interpolating scaling functions. Applicable Analysis, 1999, 72, 485-500.	0.6	23
69	Wavelet Versus JPEG (Joint Photographic Expert Group) and Fractal Compression. Investigative Radiology, 1998, 33, 456-463.	3.5	27
70	Interpolating refinable functions and wavelets for general scaling. Numerical Functional Analysis and Optimization, 1997, 18, 521-539.	0.6	10
71	Families of Orthogonal Two-Dimensional Wavelets. SIAM Journal on Mathematical Analysis, 1996, 27, 1454-1481.	0.9	18
72	Wavelet-accelerated regularization methods for hyperthermia treatment planning. International Journal of Imaging Systems and Technology, 1996, 7, 191-199.	2.7	5

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73	The Affine uncertainty principle in one and two dimensions. Computers and Mathematics With Applications, 1995, 30, 293-305.	1.4	40
74	Contour reconstruction in 3-D X-ray CT. IEEE Transactions on Medical Imaging, 1993, 12, 764-769.	5.4	49
75	The Interior Radon Transform. SIAM Journal on Applied Mathematics, 1992, 52, 710-724.	0.8	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.	0.1	9
78	High-resolution neutron small-angle scattering with a double-crystal diffractometer and 2D reconstruction. Physica B: Condensed Matter, 1991, 174, 532-536.	1.3	8
79	Smoothed projection methods for the moment problem. Numerische Mathematik, 1991, 59, 277-294.	0.9	15
80	A mollifier method for linear operator equations of the first kind. Inverse Problems, 1990, 6, 427-440.	1.0	155
81	Wideband radar: the hyp transform. Inverse Problems, 1989, 5, 849-857.	1.0	12
82	The x-ray transform: singular value decomposition and resolution. Inverse Problems, 1987, 3, 729-741.	1.0	53
83	Numerical methods for singular nonlinear integro-differential equations. Applied Numerical Mathematics, 1987, 3, 243-256.	1.2	12