Martin Burger

List of Publications by Year
in descending order

210 papers	8,761 citations	57758 44 h-index	49909 87 g-index
220 all docs	220 docs citations	220 times ranked	5795 citing authors

#	Article	IF	Citations
1	An Iterative Regularization Method for Total Variation-Based Image Restoration. Multiscale Modeling and Simulation, 2005, 4, 460-489.	1.6	1,477
2	Bregmanized Nonlocal Regularization for Deconvolution and Sparse Reconstruction. SIAM Journal on Imaging Sciences, 2010, 3, 253-276.	2.2	550
3	A Unified Primal-Dual Algorithm Framework Based on Bregman Iteration. Journal of Scientific Computing, 2011, 46, 20-46.	2.3	318
4	Incorporating topological derivatives into level set methods. Journal of Computational Physics, 2004, 194, 344-362.	3.8	291
5	Convergence rates of convex variational regularization. Inverse Problems, 2004, 20, 1411-1421.	2.0	244
6	A survey on level set methods for inverse problems and optimal design. European Journal of Applied Mathematics, 2005, 16, 263-301.	2.9	216
7	Modern regularization methods for inverse problems. Acta Numerica, 2018, 27, 1-111.	10.7	216
8	Higher-Order TV Methods—Enhancement via Bregman Iteration. Journal of Scientific Computing, 2013, 54, 269-310.	2.3	159
9	A framework for the construction of level set methods for shape optimization and reconstruction. Interfaces and Free Boundaries, 2003, 5, 301-329.	0.8	141
10	A level set method for inverse problems. Inverse Problems, 2001, 17, 1327-1355.	2.0	139
11	Phase—Field Relaxation of Topology Optimization with Local Stress Constraints. SIAM Journal on Control and Optimization, 2006, 45, 1447-1466.	2.1	136
12	Shape from Defocus via Diffusion. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2008, 30, 518-531.	13.9	136
13	Motion Correction in Dual Gated Cardiac PET Using Mass-Preserving Image Registration. IEEE Transactions on Medical Imaging, 2012, 31, 698-712.	8.9	127
14	Nonlinear inverse scale space methods. Communications in Mathematical Sciences, 2006, 4, 179-212.	1.0	127
15	Cahn—Hilliard Inpainting and a Generalization for Grayvalue Images. SIAM Journal on Imaging Sciences, 2009, 2, 1129-1167.	2.2	118
16	On an aggregation model with long and short range interactions. Nonlinear Analysis: Real World Applications, 2007, 8, 939-958.	1.7	114
17	A Hyperelastic Regularization Energy for Image Registration. SIAM Journal of Scientific Computing, 2013, 35, B132-B148.	2.8	103
18	Influences of skull segmentation inaccuracies on EEG source analysis. NeuroImage, 2012, 62, 418-431.	4.2	98

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19	Nonlinear Cross-Diffusion with Size Exclusion. SIAM Journal on Mathematical Analysis, 2010, 42, 2842-2871.	1.9	93
20	Oxidative DNA damage in human sperm can be detected by Raman microspectroscopy. Fertility and Sterility, 2012, 98, 1124-1129.e3.	1.0	90
21	The Kellerâ€"Segel Model for Chemotaxis with Prevention of Overcrowding: Linear vs. Nonlinear Diffusion. SIAM Journal on Mathematical Analysis, 2006, 38, 1288-1315.	1.9	89
22	Error estimation for Bregman iterations and inverse scale space methods in image restoration. Computing (Vienna/New York), 2007, 81, 109-135.	4.8	82
23	In situ visualization of damaged DNA in human sperm by Raman microspectroscopy. Human Reproduction, 2011, 26, 1641-1649.	0.9	76
24	A Variational Approach for Sharpening High Dimensional Images. SIAM Journal on Imaging Sciences, 2012, 5, 150-178.	2.2	75
25	Nonlinear Poissonâ€"Nernstâ€"Planck equations for ion flux through confined geometries. Nonlinearity, 2012, 25, 961-990.	1.4	75
26	Large time behavior of nonlocal aggregation models with nonlinear diffusion. Networks and Heterogeneous Media, 2008, 3, 749-785.	1.1	75
27	An adaptive inverse scale space method for compressed sensing. Mathematics of Computation, 2012, 82, 269-299.	2.1	72
28	Accurate EM-TV algorithm in PET with low SNR. , 2008, , .		71
29	Hierarchical Bayesian inference for the EEG inverse problem using realistic FE head models: Depth localization and source separation for focal primary currents. NeuroImage, 2012, 61, 1364-1382.	4.2	71
30	Level set methods for geometric inverse problems in linear elasticity. Inverse Problems, 2004, 20, 673-696.	2.0	68
31	Impact of uncertain head tissue conductivity in the optimization of transcranial direct current stimulation for an auditory target. Journal of Neural Engineering, 2015, 12, 046028.	3.5	65
32	Spectral Decompositions Using One-Homogeneous Functionals. SIAM Journal on Imaging Sciences, 2016, 9, 1374-1408.	2.2	65
33	Iterative total variation schemes for nonlinear inverse problems. Inverse Problems, 2009, 25, 105004.	2.0	64
34	Mean field games with nonlinear mobilities in pedestrian dynamics. Discrete and Continuous Dynamical Systems - Series B, 2014, 19, 1311-1333.	0.9	64
35	Primal and Dual Bregman Methods with Application to Optical Nanoscopy. International Journal of Computer Vision, 2011, 92, 211-229.	15.6	59
36	Rectification properties of conically shaped nanopores: consequences of miniaturization. Physical Chemistry Chemical Physics, 2013, 15, 16917.	2.8	59

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37	Inverse Problems Related to Ion Channel Selectivity. SIAM Journal on Applied Mathematics, 2007, 67, 960-989.	1.8	58
38	A Guide to the TV Zoo. Lecture Notes in Mathematics, 2013, , 1-70.	0.2	58
39	Regularizing Newton–Kaczmarz Methods for Nonlinear Ill-Posed Problems. SIAM Journal on Numerical Analysis, 2006, 44, 153-182.	2.3	54
40	An Optimization Approach for Well-Targeted Transcranial Direct Current Stimulation. SIAM Journal on Applied Mathematics, 2016, 76, 2154-2174.	1.8	52
41	Ground states and singular vectors of convex variational regularization methods. Methods and Applications of Analysis, 2013, 20, 295-334.	0.5	52
42	Continuous limit of a crowd motion and herding model: Analysis and numerical simulations. Kinetic and Related Models, 2011, 4, 1025-1047.	0.9	50
43	Levenbergâ€"Marquardt level set methods for inverse obstacle problems. Inverse Problems, 2004, 20, 259-282.	2.0	48
44	Inverse Total Variation Flow. Multiscale Modeling and Simulation, 2007, 6, 366-395.	1.6	46
45	Raman microspectroscopy: shining a new light on reproductive medicine. Human Reproduction Update, 2014, 20, 403-414.	10.8	46
46	Sensitivity of beamformer source analysis to deficiencies in forward modeling. Human Brain Mapping, 2010, 31, 1907-1927.	3.6	45
47	Total Variation Processing of Images with Poisson Statistics. Lecture Notes in Computer Science, 2009, , 533-540.	1.3	43
48	Stationary States and Asymptotic Behavior of Aggregation Models with Nonlinear Local Repulsion. SIAM Journal on Applied Dynamical Systems, 2014, 13, 397-424.	1.6	43
49	Error Bounds for Approximation with Neural Networks. Journal of Approximation Theory, 2001, 112, 235-250.	0.8	42
50	Structural and Functional Integrity of Spermatozoa Is Compromised as a Consequence of Acute Uropathogenic E. coli-Associated Epididymitis1. Biology of Reproduction, 2013, 89, 59.	2.7	42
51	A mixed finite element method for nonlinear diffusion equations. Kinetic and Related Models, 2010, 3, 59-83.	0.9	41
52	A Variational Model for Joint Motion Estimation and Image Reconstruction. SIAM Journal on Imaging Sciences, 2018, 11, 94-128.	2.2	40
53	Identification of doping profiles in semiconductor devices. Inverse Problems, 2001, 17, 1765-1795.	2.0	39
54	Fast Optimal Design of Semiconductor Devices. SIAM Journal on Applied Mathematics, 2003, 64, 108-126.	1.8	37

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55	A level set approach to anisotropic flows with curvature regularization. Journal of Computational Physics, 2007, 225, 183-205.	3.8	36
56	Finite element approximation of elliptic partial differential equations on implicit surfaces. Computing and Visualization in Science, 2009, 12, 87-100.	1.2	36
57	Asymptotic analysis of an advection-dominated chemotaxis model in multiple spatial dimensions. Communications in Mathematical Sciences, 2008, 6, 1-28.	1.0	36
58	Iterative regularization of parameter identification problems by sequential quadratic programming methods. Inverse Problems, 2002, 18, 943-969.	2.0	35
59	Nonlinear Inverse Scale Space Methods for Image Restoration. Lecture Notes in Computer Science, 2005, , 25-36.	1.3	35
60	Modelling multi-dimensional crystallization of polymers in interaction with heat transfer. Nonlinear Analysis: Real World Applications, 2002, 3, 139-160.	1.7	34
61	Bregman-EM-TV Methods with Application to Optical Nanoscopy. Lecture Notes in Computer Science, 2009, , 235-246.	1.3	34
62	A Variational Framework for Region-Based Segmentation Incorporating Physical Noise Models. Journal of Mathematical Imaging and Vision, 2013, 47, 179-209.	1.3	32
63	A variational reconstruction method for undersampled dynamic x-ray tomography based on physical motion models. Inverse Problems, 2017, 33, 124008.	2.0	32
64	EM-TV Methods for Inverse Problems with Poisson Noise. Lecture Notes in Mathematics, 2013, , 71-142.	0.2	31
65	Convergence rates in ℓ^1-regularization if the sparsity assumption fails. Inverse Problems, 2013, 29, 025013.	2.0	31
66	Maximum a posteriori estimates in linear inverse problems with log-concave priors are proper Bayes estimators. Inverse Problems, 2014, 30, 114004.	2.0	31
67	Stochastic and Deterministic Simulation of Nonisothermal Crystallization of Polymers. Journal of Mathematical Chemistry, 2001, 30, 169-193.	1.5	30
68	Delayed blow-up for chemotaxis models with local sensing. Journal of the London Mathematical Society, 2021, 103, 1596-1617.	1.0	30
69	Analysis of Tikhonov regularization for function approximation by neural networks. Neural Networks, 2003, 16, 79-90.	5.9	28
70	Numerical Approximation of an SQP-Type Method for Parameter Identification. SIAM Journal on Numerical Analysis, 2002, 40, 1775-1797.	2.3	27
71	Inverse problems in ion channel modelling. Inverse Problems, 2011, 27, 083001.	2.0	27
72	Nonlinear Spectral Analysis via One-Homogeneous Functionals: Overview and Future Prospects. Journal of Mathematical Imaging and Vision, 2016, 56, 300-319.	1.3	27

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73	Infimal Convolution Regularisation Functionals of BV and $$\varvec{\mathrm {L}}^{\varvec{p}}$$ L p Spaces. Journal of Mathematical Imaging and Vision, 2016, 55, 343-369.	1.3	27
74	Sorting Phenomena in a Mathematical Model For Two Mutually Attracting/Repelling Species. SIAM Journal on Mathematical Analysis, 2018, 50, 3210-3250.	1.9	27
75	MATHEMATICAL MODELLING AND SIMULATION OF NON-ISOTHERMAL CRYSTALLIZATION OF POLYMERS. Mathematical Models and Methods in Applied Sciences, 2001, 11, 1029-1053.	3.3	26
76	Sparsity-promoting and edge-preserving maximum a posteriori estimators in non-parametric Bayesian inverse problems. Inverse Problems, 2018, 34, 045002.	2.0	26
77	Stationary states of quadratic diffusion equations with long-range attraction. Communications in Mathematical Sciences, 2013, 11, 709-738.	1.0	26
78	Lane Formation by Side-Stepping. SIAM Journal on Mathematical Analysis, 2016, 48, 981-1005.	1.9	25
79	The Effect of Head Model Simplification on Beamformer Source Localization. Frontiers in Neuroscience, 2017, 11, 625.	2.8	25
80	Partial differential equation models in the socio-economic sciences. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130406.	3.4	24
81	Inverse problems related to crystallization of polymers. Inverse Problems, 1999, 15, 155-173.	2.0	23
82	Instantaneous control of interacting particle systems in the mean-field limit. Journal of Computational Physics, 2020, 405, 109181.	3.8	23
83	Mesoscale Averaging of Nucleation and Growth Models. Multiscale Modeling and Simulation, 2006, 5, 564-592.	1.6	22
84	Numerical simulation of anisotropic surface diffusion with curvature-dependent energy. Journal of Computational Physics, 2005, 203, 602-625.	3.8	21
85	Iterative Total Variation Regularization with Non-Quadratic Fidelity. Journal of Mathematical Imaging and Vision, 2006, 26, 167-184.	1.3	21
86	Cavity identification in linear elasticity and thermoelasticity. Mathematical Methods in the Applied Sciences, 2007, 30, 625-647.	2.3	21
87	Level Set and PDE Based Reconstruction Methods in Imaging. Lecture Notes in Mathematics, 2013, , .	0.2	21
88	Spectral Representations of One-Homogeneous Functionals. Lecture Notes in Computer Science, 2015, , 16-27.	1.3	21
89	A framework for automated cell tracking in phase contrast microscopic videos based on normal velocities. Journal of Visual Communication and Image Representation, 2014, 25, 396-409.	2.8	20
90	On a cross-diffusion model for multiple species with nonlocal interaction and size exclusion. Nonlinear Analysis: Theory, Methods & Applications, 2017, 159, 10-39.	1.1	20

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91	Bias Reduction in Variational Regularization. Journal of Mathematical Imaging and Vision, 2017, 59, 534-566.	1.3	20
92	Bregman Distances in Inverse Problems and Partial Differential Equations. Springer Optimization and Its Applications, 2016, , 3-33.	0.9	20
93	Block compressive sensing of image and video with nonlocal Lagrangian multiplier and patch-based sparse representation. Signal Processing: Image Communication, 2017, 54, 93-106.	3.2	19
94	Asymptotic profiles of nonlinear homogeneous evolution equations of gradient flow type. Journal of Evolution Equations, 2020, 20, 1061-1092.	1.1	19
95	Training neural networks with noisy data as an ill-posed problem. Advances in Computational Mathematics, 2000, 13, 335-354.	1.6	18
96	The iteratively regularized Gauss–Newton method with convex constraints and applications in 4Pi microscopy. Inverse Problems, 2012, 28, 015012.	2.0	18
97	Individual based and mean-field modeling of direct aggregation. Physica D: Nonlinear Phenomena, 2013, 260, 145-158.	2.8	18
98	Regularization Methods for Blind Deconvolution and Blind Source Separation Problems. Mathematics of Control, Signals, and Systems, 2001, 14, 358-383.	2.3	17
99	Cross-Diffusion Systems with Excluded-Volume Effects and Asymptotic Gradient Flow Structures. Journal of Nonlinear Science, 2017, 27, 687-719.	2.1	17
100	Dynamic inverse problems: modelling–regularization–numerics. Inverse Problems, 2018, 34, 040301.	2.0	17
101	Parallel medical image reconstruction: from graphics processing units (GPU) to Grids. Journal of Supercomputing, 2011, 57, 151-160.	3.6	16
102	Color Bregman TV. SIAM Journal on Imaging Sciences, 2014, 7, 2771-2806.	2.2	16
103	Dynamic MRI reconstruction from undersampled data with an anatomical prescan. Inverse Problems, 2018, 34, 074001.	2.0	16
104	Joint reconstruction via coupled Bregman iterations with applications to PET-MR imaging. Inverse Problems, 2018, 34, 014001.	2.0	15
105	Scene and Motion Reconstruction from Defocused and Motion-Blurred Images via Anisotropic Diffusion. Lecture Notes in Computer Science, 2004, , 257-269.	1.3	15
106	Iterative Solution Methods. , 2011, , 345-384.		15
107	Iterative Regularization of a Parameter Identification Problem Occurring in Polymer Crystallization. SIAM Journal on Numerical Analysis, 2001, 39, 1029-1055.	2.3	14
108	On a Boltzmann-type price formation model. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130126.	2.1	14

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109	Second-Order Edge-Penalization in the Ambrosio--Tortorelli functional. Multiscale Modeling and Simulation, 2015, 13, 1354-1389.	1.6	14
110	Flow characteristics in a crowded transport model. Nonlinearity, 2016, 29, 3528-3550.	1.4	14
111	Mathematical imaging methods for mitosis analysis in live-cell phase contrast microscopy. Methods, 2017, 115, 91-99.	3.8	14
112	Solution paths of variational regularization methods for inverse problems. Inverse Problems, 2019, 35, 105012.	2.0	14
113	Stability analysis of the inverse transmembrane potential problem in electrocardiography. Inverse Problems, 2010, 26, 105012.	2.0	13
114	Reconstruction of short time PET scans using Bregman iterations. , 2011, , .		13
115	On a Boltzmann Mean Field Model for Knowledge Growth. SIAM Journal on Applied Mathematics, 2016, 76, 1799-1818.	1.8	13
116	Risk estimators for choosing regularization parameters in ill-posed problems - properties and limitations. Inverse Problems and Imaging, 2018, 12, 1121-1155.	1.1	13
117	Optimal Control of Polymer Morphologies. Journal of Engineering Mathematics, 2004, 49, 339-358.	1.2	12
118	A nonlinear variational method for improved quantification of myocardial blood flow using dynamic $H_2^{15}O$ PET. , 2008, , .		12
119	Motion correction of cardiac PET using mass-preserving registration. , 2010, , .		12
120	Mathematical modeling and simulation of nanopore blocking by precipitation. Journal of Physics Condensed Matter, 2010, 22, 454101.	1.8	12
121	A LEVEL SET BASED SHAPE OPTIMIZATION METHOD FOR AN ELLIPTIC OBSTACLE PROBLEM. Mathematical Models and Methods in Applied Sciences, 2011, 21, 619-649.	3.3	12
122	On a mean field game optimal control approach modeling fast exit scenarios in human crowds. , 2013, , .		12
123	Analysis of the Diffuse Domain Method for Second Order Elliptic Boundary Value Problems. Foundations of Computational Mathematics, 2017, 17, 627-674.	2.5	12
124	Surface diffusion including adatoms. Communications in Mathematical Sciences, 2006, 4, 1-51.	1.0	12
125	Uniqueness of strong solutions and weakâ€"strong stability in a system of cross-diffusion equations. Journal of Evolution Equations, 2020, 20, 459-483.	1.1	11
126	Segregation effects and gap formation in cross-diffusion models. Interfaces and Free Boundaries, 2020, 22, 175-203.	0.8	11

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127	Nonlinear Spectral Image Fusion. Lecture Notes in Computer Science, 2017, , 41-53.	1.3	11
128	Balanced growth path solutions of a Boltzmann mean field game model for knowledge growth. Kinetic and Related Models, 2017, 10, 117-140.	0.9	11
129	Multiscale Methods for Polyhedral Regularizations. SIAM Journal on Optimization, 2013, 23, 1424-1456.	2.0	10
130	Convergence rates and structure of solutions of inverse problems with imperfect forward models. Inverse Problems, 2019, 35, 024006.	2.0	10
131	Optical flow analysis reveals that Kinesin-mediated advection impacts the orientation of microtubules in the<i>Drosophila</i>oocyte. Molecular Biology of the Cell, 2020, 31, 1246-1258.	2.1	10
132	Network Structured Kinetic Models of Social Interactions. Vietnam Journal of Mathematics, 2021, 49, 937-956.	0.8	10
133	Nonlinear spectral decompositions by gradient flows of one-homogeneous functionals. Analysis and PDE, 2021, 14, 823-860.	1.4	10
134	On the asymptotic behavior of a Boltzmann-type price formation model. Communications in Mathematical Sciences, 2014, 12, 1353-1361.	1.0	10
135	Continuum Modeling of Biological Network Formation. Modeling and Simulation in Science, Engineering and Technology, 2017, , 1-48.	0.6	9
136	Pattern formation of a nonlocal, anisotropic interaction model. Mathematical Models and Methods in Applied Sciences, 2018, 28, 409-451.	3.3	9
137	Unified Models for Second-Order TV-Type Regularisation in Imaging: A New Perspective Based on Vector Operators. Journal of Mathematical Imaging and Vision, 2019, 61, 571-601.	1.3	9
138	Finite Element-Based Level Set Methods for Higher Order Flows. Journal of Scientific Computing, 2008, 35, 77-98.	2.3	8
139	Assessment of Inadequate Use of Pediatric Emergency Medical Transport Services: The Pediatric Emergency and Ambulance Critical Evaluation (PEACE) Study. Frontiers in Pediatrics, 2019, 7, 442.	1.9	8
140	Regularization with Sparse Vector Fields: From Image Compression to TV-type Reconstruction. Lecture Notes in Computer Science, 2015, , 191-202.	1.3	8
141	A Continuity Equation Based Optical Flow Method for Cardiac Motion Correction in 3D PET Data. Lecture Notes in Computer Science, 2010, , 88-97.	1.3	8
142	A mesoscopic model of biological transportation networks. Communications in Mathematical Sciences, 2019, 17, 1213-1234.	1.0	8
143	Raman microspectroscopic discrimination of TCam-2 cultures reveals the presence of two sub-populations of cells. Cell and Tissue Research, 2013, 354, 623-632.	2.9	7
144	Simultaneous reconstruction and segmentation for dynamic SPECT imaging. Inverse Problems, 2016, 32, 104002.	2.0	7

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145	An entropic Landweber method for linear ill-posed problems. Inverse Problems, 2020, 36, 015009.	2.0	7
146	Variational regularisation for inverse problems with imperfect forward operators and general noise models. Inverse Problems, 2020, 36, 125014.	2.0	7
147	The Willmore functional and instabilities in the Cahn-Hilliard equation. Communications in Mathematical Sciences, 2008, 6, 309-329.	1.0	7
148	A GLOBALLY CONVERGENT GUMMEL MAP FOR OPTIMAL DOPANT PROFILING. Mathematical Models and Methods in Applied Sciences, 2009, 19, 769-786.	3.3	6
149	A Solver for Dynamic PET Reconstructions based on Forward-Backward-Splitting. , 2010, , .		6
150	Inverse problems in imaging. , 2013, , 135-180.		6
151	A stochastic model for the normal tissue complication probability (NTCP) and applicationss. Mathematical Medicine and Biology, 2017, 34, dqw013.	1.2	6
152	Using migrating cells as probes to illuminate features in live embryonic tissues. Science Advances, 2020, 6, .	10.3	6
153	Computing Nonlinear Eigenfunctions via Gradient Flow Extinction. Lecture Notes in Computer Science, 2019, , 291-302.	1.3	6
154	Structural analysis of an L-infinity variational problem and relations to distance functions. Pure and Applied Analysis, 2020, 2, 703-738.	1.1	6
155	Regularized Greedy Algorithms for Network Training with Data Noise. Computing (Vienna/New York), 2005, 74, 1-22.	4.8	5
156	Inverse problems related to ion channels. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1120801-1120802.	0.2	5
157	Dynamic SPECT reconstruction with temporal edge correlation. Inverse Problems, 2018, 34, 014005.	2.0	5
158	Large noise in variational regularization. Transactions of Mathematics and Its Applications, 2018, 2, .	3.3	5
159	Connections between deep learning and partial differential equations. European Journal of Applied Mathematics, 2021, 32, 395-396.	2.9	5
160	Optimization models for semiconductor dopant profiling. , 2007, , 91-115.		5
161	Infimal Convolution Regularisation Functionals of BV and L^{p} Spaces. The Case $p=\infty$. IFIP Advances in Information and Communication Technology, 2016, , 169-179.	0.7	5
162	Adaptive Regularization in Convex Composite Optimization for Variational Imaging Problems. Lecture Notes in Computer Science, 2017, , 268-280.	1.3	5

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163	Parallel Medical Image Reconstruction: From Graphics Processors to Grids. Lecture Notes in Computer Science, 2009, , 457-473.	1.3	5
164	An Extension of the Kolmogorov-Avrami Formula to Inhomogeneous Birth-and-Growth Processes. , 2007, , 63-76.		4
165	Model of oscillatory zoning in two dimensions: Simulation and mode analysis. Physical Review E, 2010, 81, 051605.	2.1	4
166	Preface to special issue on joint reconstruction and multi-modality/multi-spectral imaging. Inverse Problems, 2020, 36, 020302.	2.0	4
167	Adaptive Superresolution in Deconvolution of Sparse Peaks. IEEE Transactions on Signal Processing, 2021, 69, 165-178.	5.3	4
168	Mathematical Models for Polymer Crystallization Processes. Mathematics in Industry, 2003, , 167-242.	0.3	4
169	Locally sparse reconstruction using the $l^{1,infty}$-norm. Inverse Problems and Imaging, 2015, 9, 1093-1137.	1.1	4
170	Identification of nonlinearities in transport-diffusion models of crowded motion. Inverse Problems and Imaging, 2013, 7, 1157-1182.	1.1	4
171	Reconstruction Methods in THz Single-Pixel Imaging. Applied and Numerical Harmonic Analysis, 2019, , 263-290.	0.3	4
172	Growth of multiple crystals in polymer melts. European Journal of Applied Mathematics, 2004, 15, 347-363.	2.9	3
173	Inverse problems in geographical economics: parameter identification in the spatial Solow model. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130402.	3.4	3
174	Diffuse interface methods for inverse problems: case study for an elliptic Cauchy problem. Inverse Problems, 2015, 31, 125002.	2.0	3
175	The inverse problem of magnetorelaxometry imaging. Inverse Problems, 2018, 34, 115008.	2.0	3
176	Adaptive Regularization of Some Inverse Problems in Image Analysis. IEEE Transactions on Image Processing, 2020, 29, 2507-2521.	9.8	3
177	Data assimilation in price formation. Inverse Problems, 2020, 36, 064003.	2.0	3
178	Coarse graining of a Fokker–Planck equation with excluded volume effects preserving the gradient flow structure. European Journal of Applied Mathematics, 2021, 32, 711-745.	2.9	3
179	Mean-field optimal control for biological pattern formation. ESAIM - Control, Optimisation and Calculus of Variations, 2021, 27, 40.	1.3	3
180	Crystal Growth and Impingement in Polymer Melts. , 2003, , 65-74.		3

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181	Global weak solutions of non-isothermal front propagation problem. Electronic Research Announcements in Mathematical Sciences, 2007, 13, 46-53.	0.7	2
182	Mass-preserving motion correction of PET: Displacement field vs. spline transformation. , 2011, , .		2
183	Pipeline for motion correction in dual gated PET. , 2012, , .		2
184	Towards dynamic PET reconstruction under flow conditions: Parameter identification in a PDE model. Journal of Inverse and Ill-Posed Problems, 2018, 26, 185-200.	1.0	2
185	A one Shot Approach to Topology Optimization with Local Stress Constraints. , 2006, , 181-184.		2
186	Registration of Noisy Images via Maximum A-Posteriori Estimation. Lecture Notes in Computer Science, 2014, , 231-240.	1.3	2
187	Gradient flows and nonlinear power methods for the computation of nonlinear eigenfunctions. Handbook of Numerical Analysis, 2022, , 427-465.	1.8	2
188	Edge-Preserving Regularization for the Deconvolution of Biological Images in Nanoscopy. , 2010, , .		1
189	Mass-preserving motion correction of dual gated cardiac PET. , 2011, , .		1
190	Optimal dopant doping profiling with TV penalty. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 679-680.	0.2	1
191	Mathematical methods in biomedical imaging. GAMM Mitteilungen, 2014, 37, 154-183.	5.5	1
192	Variational method for motion corrected reconstruction with MRI information in positron emission tomography. , 2015, , .		1
193	7. On optical flow models for variational motion estimation. , 2016, , 225-251.		1
194	A Total Variation Based Regularizer Promoting Piecewise-Lipschitz Reconstructions. Lecture Notes in Computer Science, 2019, , 485-497.	1.3	1
195	Tomographic Inverse Problems: Theory and Applications. Oberwolfach Reports, 2019, 16, 209-303.	0.0	1
196	On a Reaction-Cross-Diffusion System Modeling the Growth of Glioblastoma. SIAM Journal on Applied Mathematics, 2020, 80, 160-182.	1.8	1
197	Mean-field models for segregation dynamics. European Journal of Applied Mathematics, 0, , 1-22.	2.9	1
198	Iterative Solution Methods. , 2015, , 431-470.		1

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199	On Fokker-Planck equations with In- and Outflow of Mass. Kinetic and Related Models, 2020, 13, 249-277.	0.9	1
200	Kinetic equations for processes on co-evolving networks. Kinetic and Related Models, 2022, 15, 187.	0.9	1
201	A Diffuse Interface Model for Cell Blebbing Including Membrane-Cortex Coupling with Linker Dynamics. SIAM Journal on Applied Mathematics, 2022, 82, 1091-1112.	1.8	1
202	Mini-Workshop: Anisotropic Motion Laws. Oberwolfach Reports, 2007, 3, 2277-2306.	0.0	0
203	Mathematics and Algorithms in Tomography. Oberwolfach Reports, 2010, 7, 1017-1099.	0.0	0
204	Sparse recovery in myocardial blood flow quantification via PET. , 2011, , .		0
205	Detection of sperm DNA damage by raman microspectroscopy. Fertility and Sterility, 2011, 96, S234-S235.	1.0	0
206	Atlas-based segmentation using passive contours. , 2012, , .		0
207	Dynamic PET Reconstruction based on a Reaction-Diffusion Model. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 683-684.	0.2	0
208	Iterative Solution Methods. , 2014, , 1-37.		0
209	Inverse Problems: Numerical Methods. , 2015, , 732-735.		0
210	Region-of-Interest Prioritised Sampling for Constrained Autonomous Exploration Systems. IEEE Transactions on Computational Imaging, 2022, 8, 302-316.	4.4	0