Martin Burger

List of Publications by Year
in descending order

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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	Gradient flows and nonlinear power methods for the computation of nonlinear eigenfunctions. Handbook of Numerical Analysis, 2022, , 427-465.	1.8	2
2	Kinetic equations for processes on co-evolving networks. Kinetic and Related Models, 2022, 15, 187.	0.9	1
3	Region-of-Interest Prioritised Sampling for Constrained Autonomous Exploration Systems. IEEE Transactions on Computational Imaging, 2022, 8, 302-316.	4.4	0
4	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
5	Coarse graining of a Fokkerâ€“Planck equation with excluded volume effects preserving the gradient flow structure. European Journal of Applied Mathematics, 2021, 32, 711-745.	2.9	3
6	Mean-field optimal control for biological pattern formation. ESAIM - Control, Optimisation and Calculus of Variations, 2021, 27, 40.	1.3	3
7	Adaptive Superresolution in Deconvolution of Sparse Peaks. IEEE Transactions on Signal Processing, 2021, 69, 165-178.	5.3	4
8	Network Structured Kinetic Models of Social Interactions. Vietnam Journal of Mathematics, 2021, 49, 937-956.	0.8	10
9	Nonlinear spectral decompositions by gradient flows of one-homogeneous functionals. Analysis and PDE, 2021, 14, 823-860.	1.4	10
10	Connections between deep learning and partial differential equations. European Journal of Applied Mathematics, 2021, 32, 395-396.	2.9	5
11	Delayed blowâ€up for chemotaxis models with local sensing. Journal of the London Mathematical Society, 2021, 103, 1596-1617.	1.0	30
12	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
13	Asymptotic profiles of nonlinear homogeneous evolution equations of gradient flow type. Journal of Evolution Equations, 2020, 20, 1061-1092.	1.1	19
14	Adaptive Regularization of Some Inverse Problems in Image Analysis. IEEE Transactions on Image Processing, 2020, 29, 2507-2521.	9.8	3
15	Instantaneous control of interacting particle systems in the mean-field limit. Journal of Computational Physics, 2020, 405, 109181.	3.8	23
16	An entropic Landweber method for linear ill-posed problems. Inverse Problems, 2020, 36, 015009.	2.0	7
17	Using migrating cells as probes to illuminate features in live embryonic tissues. Science Advances, 2020, 6, .	10.3	6
18	Segregation effects and gap formation in cross-diffusion models. Interfaces and Free Boundaries, 2020, 22, 175-203.	0.8	11

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19	Data assimilation in price formation. Inverse Problems, 2020, 36, 064003.	2.0	3
20	Preface to special issue on joint reconstruction and multi-modality/multi-spectral imaging. Inverse Problems, 2020, 36, 020302.	2.0	4
21	On a Reaction-Cross-Diffusion System Modeling the Growth of Glioblastoma. SIAM Journal on Applied Mathematics, 2020, 80, 160-182.	1.8	1
22	Optical flow analysis reveals that Kinesin-mediated advection impacts the orientation of microtubules in theDrosophilaoocyte. Molecular Biology of the Cell, 2020, 31, 1246-1258.	2.1	10
23	Variational regularisation for inverse problems with imperfect forward operators and general noise models. Inverse Problems, 2020, 36, 125014.	2.0	7
24	Structural analysis of an L-infinity variational problem and relations to distance functions. Pure and Applied Analysis, 2020, 2, 703-738.	1.1	6
25	On Fokker-Planck equations with In- and Outflow of Mass. Kinetic and Related Models, 2020, 13, 249-277.	0.9	1
26	A Total Variation Based Regularizer Promoting Piecewise-Lipschitz Reconstructions. Lecture Notes in Computer Science, 2019, , 485-497.	1.3	1
27	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
28	Solution paths of variational regularization methods for inverse problems. Inverse Problems, 2019, 35, 105012.	2.0	14
29	Tomographic Inverse Problems: Theory and Applications. Oberwolfach Reports, 2019, 16, 209-303.	0.0	1
30	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
31	Convergence rates and structure of solutions of inverse problems with imperfect forward models. Inverse Problems, 2019, 35, 024006.	2.0	10
32	Computing Nonlinear Eigenfunctions via Gradient Flow Extinction. Lecture Notes in Computer Science, 2019, , 291-302.	1.3	6
33	A mesoscopic model of biological transportation networks. Communications in Mathematical Sciences, 2019, 17, 1213-1234.	1.0	8
34	Reconstruction Methods in THz Single-Pixel Imaging. Applied and Numerical Harmonic Analysis, 2019, , 263-290.	0.3	4
35	Dynamic inverse problems: modellingâ€"regularizationâ€"numerics. Inverse Problems, 2018, 34, 040301.	2.0	17
36	A Variational Model for Joint Motion Estimation and Image Reconstruction. SIAM Journal on Imaging Sciences, 2018, 11, 94-128.	2.2	40

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37	Pattern formation of a nonlocal, anisotropic interaction model. Mathematical Models and Methods in Applied Sciences, 2018, 28, 409-451.	3.3	9
38	Sparsity-promoting and edge-preserving maximum a posteriori estimators in non-parametric Bayesian inverse problems. Inverse Problems, 2018, 34, 045002.	2.0	26
39	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
40	Joint reconstruction via coupled Bregman iterations with applications to PET-MR imaging. Inverse Problems, 2018, 34, 014001.	2.0	15
41	Dynamic SPECT reconstruction with temporal edge correlation. Inverse Problems, 2018, 34, 014005.	2.0	5
42	Sorting Phenomena in a Mathematical Model For Two Mutually Attracting/Repelling Species. SIAM Journal on Mathematical Analysis, 2018, 50, 3210-3250.	1.9	27
43	The inverse problem of magnetorelaxometry imaging. Inverse Problems, 2018, 34, 115008.	2.0	3
44	Modern regularization methods for inverse problems. Acta Numerica, 2018, 27, 1-111.	10.7	216
45	Large noise in variational regularization. Transactions of Mathematics and Its Applications, 2018, 2, .	3.3	5
46	Dynamic MRI reconstruction from undersampled data with an anatomical prescan. Inverse Problems, 2018, 34, 074001.	2.0	16
47	Risk estimators for choosing regularization parameters in ill-posed problems - properties and limitations. Inverse Problems and Imaging, 2018, 12, 1121-1155.	1.1	13
48	A stochastic model for the normal tissue complication probability (NTCP) and applicationss. Mathematical Medicine and Biology, 2017, 34, dqw013.	1.2	6
49	Analysis of the Diffuse Domain Method for Second Order Elliptic Boundary Value Problems. Foundations of Computational Mathematics, 2017, 17, 627-674.	2.5	12
50	Mathematical imaging methods for mitosis analysis in live-cell phase contrast microscopy. Methods, 2017, 115, 91-99.	3.8	14
51	Continuum Modeling of Biological Network Formation. Modeling and Simulation in Science, Engineering and Technology, 2017, , 1-48.	0.6	9
52	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
53	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
54	Bias Reduction in Variational Regularization. Journal of Mathematical Imaging and Vision, 2017, 59, 534-566.	1.3	20

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55	A variational reconstruction method for undersampled dynamic x-ray tomography based on physical motion models. Inverse Problems, 2017, 33, 124008.	2.0	32
56	Cross-Diffusion Systems with Excluded-Volume Effects and Asymptotic Gradient Flow Structures. Journal of Nonlinear Science, 2017, 27, 687-719.	2.1	17
57	The Effect of Head Model Simplification on Beamformer Source Localization. Frontiers in Neuroscience, 2017, 11, 625.	2.8	25
58	Nonlinear Spectral Image Fusion. Lecture Notes in Computer Science, 2017, , 41-53.	1.3	11
59	Adaptive Regularization in Convex Composite Optimization for Variational Imaging Problems. Lecture Notes in Computer Science, 2017, , 268-280.	1.3	5
60	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
61	Flow characteristics in a crowded transport model. Nonlinearity, 2016, 29, 3528-3550.	1.4	14
62	Simultaneous reconstruction and segmentation for dynamic SPECT imaging. Inverse Problems, 2016, 32, 104002.	2.0	7
63	7. On optical flow models for variational motion estimation. , 2016, , 225-251.		1
64	Spectral Decompositions Using One-Homogeneous Functionals. SIAM Journal on Imaging Sciences, 2016, 9, 1374-1408.	2.2	65
65	Lane Formation by Side-Stepping. SIAM Journal on Mathematical Analysis, 2016, 48, 981-1005.	1.9	25
66	On a Boltzmann Mean Field Model for Knowledge Growth. SIAM Journal on Applied Mathematics, 2016, 76, 1799-1818.	1.8	13
67	An Optimization Approach for Well-Targeted Transcranial Direct Current Stimulation. SIAM Journal on Applied Mathematics, 2016, 76, 2154-2174.	1.8	52
68	Nonlinear Spectral Analysis via One-Homogeneous Functionals: Overview and Future Prospects. Journal of Mathematical Imaging and Vision, 2016, 56, 300-319.	1.3	27
69	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
70	Bregman Distances in Inverse Problems and Partial Differential Equations. Springer Optimization and Its Applications, 2016, , 3-33.	0.9	20
71	Infimal Convolution Regularisation Functionals of $$mathrm {BV}$$ and $$mathrm {L}^{p}$$ Spaces. The Case $$p=infty $$. IFIP Advances in Information and Communication Technology, 2016, , 169-179.	0.7	5
72	Variational method for motion corrected reconstruction with MRI information in positron emission tomography. , 2015, , .		1

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73	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
74	Second-Order Edge-Penalization in the Ambrosio--Tortorelli functional. Multiscale Modeling and Simulation, 2015, 13, 1354-1389.	1.6	14
75	Diffuse interface methods for inverse problems: case study for an elliptic Cauchy problem. Inverse Problems, 2015, 31, 125002.	2.0	3
76	Regularization with Sparse Vector Fields: From Image Compression to TV-type Reconstruction. Lecture Notes in Computer Science, 2015, , 191-202.	1.3	8
77	Spectral Representations of One-Homogeneous Functionals. Lecture Notes in Computer Science, 2015, , 16-27.	1.3	21
78	Locally sparse reconstruction using the $l^{1,infty}$-norm. Inverse Problems and Imaging, 2015, 9, 1093-1137.	1.1	4
79	Iterative Solution Methods. , 2015, , 431-470.		1
80	Inverse Problems: Numerical Methods. , 2015, , 732-735.		0
81	Iterative Solution Methods. , 2014, , 1-37.		0
82	Color Bregman TV. SIAM Journal on Imaging Sciences, 2014, 7, 2771-2806.	2.2	16
83	Mathematical methods in biomedical imaging. GAMM Mitteilungen, 2014, 37, 154-183.	5.5	1
84	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
85	Maximum a posteriori estimates in linear inverse problems with log-concave priors are proper Bayes estimators. Inverse Problems, 2014, 30, 114004.	2.0	31
86	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
87	Raman microspectroscopy: shining a new light on reproductive medicine. Human Reproduction Update, 2014, 20, 403-414.	10.8	46
88	Partial differential equation models in the socio-economic sciences. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130406.	3.4	24
89	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
90	Registration of Noisy Images via Maximum A-Posteriori Estimation. Lecture Notes in Computer Science, 2014, , 231-240.	1.3	2

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91	Mean field games with nonlinear mobilities in pedestrian dynamics. Discrete and Continuous Dynamical Systems - Series B, 2014, 19, 1311-1333.	0.9	64
92	On the asymptotic behavior of a Boltzmann-type price formation model. Communications in Mathematical Sciences, 2014, 12, 1353-1361.	1.0	10
93	A Variational Framework for Region-Based Segmentation Incorporating Physical Noise Models. Journal of Mathematical Imaging and Vision, 2013, 47, 179-209.	1.3	32
94	Multiscale Methods for Polyhedral Regularizations. SIAM Journal on Optimization, 2013, 23, 1424-1456.	2.0	10
95	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
96	Individual based and mean-field modeling of direct aggregation. Physica D: Nonlinear Phenomena, 2013, 260, 145-158.	2.8	18
97	Rectification properties of conically shaped nanopores: consequences of miniaturization. Physical Chemistry Chemical Physics, 2013, 15, 16917.	2.8	59
98	Higher-Order TV Methodsâ€"Enhancement via Bregman Iteration. Journal of Scientific Computing, 2013, 54, 269-310.	2.3	159
99	A Hyperelastic Regularization Energy for Image Registration. SIAM Journal of Scientific Computing, 2013, 35, B132-B148.	2.8	103
100	On a Boltzmann-type price formation model. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130126.	2.1	14
101	A Guide to the TV Zoo. Lecture Notes in Mathematics, 2013, , 1-70.	0.2	58
102	EM-TV Methods for Inverse Problems with Poisson Noise. Lecture Notes in Mathematics, 2013, , 71-142.	0.2	31
103	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
104	On a mean field game optimal control approach modeling fast exit scenarios in human crowds. , 2013, , .		12
105	Convergence rates inâ„“¹-regularization if the sparsity assumption fails. Inverse Problems, 2013, 29, 025013.	2.0	31
106	Inverse problems in imaging. , 2013, , 135-180.		6
107	Level Set and PDE Based Reconstruction Methods in Imaging. Lecture Notes in Mathematics, 2013, , .	0.2	21
108	Stationary states of quadratic diffusion equations with long-range attraction. Communications in Mathematical Sciences, 2013, 11, 709-738.	1.0	26

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109	Ground states and singular vectors of convex variational regularization methods. Methods and Applications of Analysis, 2013, 20, 295-334.	0.5	52
110	Identification of nonlinearities in transport-diffusion models of crowded motion. Inverse Problems and Imaging, 2013, 7, 1157-1182.	1.1	4
111	Atlas-based segmentation using passive contours. , 2012, , .		0
112	A Variational Approach for Sharpening High Dimensional Images. SIAM Journal on Imaging Sciences, 2012, 5, 150-178.	2.2	75
113	Pipeline for motion correction in dual gated PET. , 2012, , .		2
114	An adaptive inverse scale space method for compressed sensing. Mathematics of Computation, 2012, 82, 269-299.	2.1	72
115	Optimal dopant doping profiling with TV penalty. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 679-680.	0.2	1
116	Dynamic PET Reconstruction based on a Reaction-Diffusion Model. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 683-684.	0.2	0
117	Oxidative DNA damage in human sperm can be detected by Raman microspectroscopy. Fertility and Sterility, 2012, 98, 1124-1129.e3.	1.0	90
118	The iteratively regularized Gaussâ€“Newton method with convex constraints and applications in 4Pi microscopy. Inverse Problems, 2012, 28, 015012.	2.0	18
119	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
120	Influences of skull segmentation inaccuracies on EEG source analysis. NeuroImage, 2012, 62, 418-431.	4.2	98
121	Nonlinear Poissonâ€“Nernstâ€“Planck equations for ion flux through confined geometries. Nonlinearity, 2012, 25, 961-990.	1.4	75
122	Motion Correction in Dual Gated Cardiac PET Using Mass-Preserving Image Registration. IEEE Transactions on Medical Imaging, 2012, 31, 698-712.	8.9	127
123	Mass-preserving motion correction of PET: Displacement field vs. spline transformation. , 2011, , .		2
124	Sparse recovery in myocardial blood flow quantification via PET. , 2011, , .		0
125	Mass-preserving motion correction of dual gated cardiac PET. , 2011, , .		1
126	In situ visualization of damaged DNA in human sperm by Raman microspectroscopy. Human Reproduction, 2011, 26, 1641-1649.	0.9	76

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127	Inverse problems in ion channel modelling. Inverse Problems, 2011, 27, 083001.	2.0	27
128	Detection of sperm DNA damage by raman microspectroscopy. Fertility and Sterility, 2011, 96, S234-S235.	1.0	0
129	A Unified Primal-Dual Algorithm Framework Based onÂBregman Iteration. Journal of Scientific Computing, 2011, 46, 20-46.	2.3	318
130	Parallel medical image reconstruction: from graphics processing units (GPU) to Grids. Journal of Supercomputing, 2011, 57, 151-160.	3.6	16
131	Primal and Dual Bregman Methods with Application to Optical Nanoscopy. International Journal of Computer Vision, 2011, 92, 211-229.	15.6	59
132	Reconstruction of short time PET scans using Bregman iterations. , 2011, , .		13
133	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
134	Continuous limit of a crowd motion and herding model: Analysis and numerical simulations. Kinetic and Related Models, 2011, 4, 1025-1047.	0.9	50
135	Iterative Solution Methods. , 2011, , 345-384.		15
136	Sensitivity of beamformer source analysis to deficiencies in forward modeling. Human Brain Mapping, 2010, 31, 1907-1927.	3.6	45
137	Mathematics and Algorithms in Tomography. Oberwolfach Reports, 2010, 7, 1017-1099.	0.0	0
138	Motion correction of cardiac PET using mass-preserving registration. , 2010, , .		12
139	Stability analysis of the inverse transmembrane potential problem in electrocardiography. Inverse Problems, 2010, 26, 105012.	2.0	13
140	A Solver for Dynamic PET Reconstructions based on Forward-Backward-Splitting. , 2010, , .		6
141	Edge-Preserving Regularization for the Deconvolution of Biological Images in Nanoscopy. , 2010, , .		1
142	Model of oscillatory zoning in two dimensions: Simulation and mode analysis. Physical Review E, 2010, 81, 051605.	2.1	4
143	Nonlinear Cross-Diffusion with Size Exclusion. SIAM Journal on Mathematical Analysis, 2010, 42, 2842-2871.	1.9	93
144	Bregmanized Nonlocal Regularization for Deconvolution and Sparse Reconstruction. SIAM Journal on Imaging Sciences, 2010, 3, 253-276.	2.2	550

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145	Mathematical modeling and simulation of nanopore blocking by precipitation. Journal of Physics Condensed Matter, 2010, 22, 454101.	1.8	12
146	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
147	A mixed finite element method for nonlinear diffusion equations. Kinetic and Related Models, 2010, 3, 59-83.	0.9	41
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	Iterative total variation schemes for nonlinear inverse problems. Inverse Problems, 2009, 25, 105004.	2.0	64
150	Total Variation Processing of Images with Poisson Statistics. Lecture Notes in Computer Science, 2009, , 533-540.	1.3	43
151	Finite element approximation of elliptic partial differential equations on implicit surfaces. Computing and Visualization in Science, 2009, 12, 87-100.	1.2	36
152	Cahnâ€“Hilliard Inpainting and a Generalization for Grayvalue Images. SIAM Journal on Imaging Sciences, 2009, 2, 1129-1167.	2.2	118
153	Bregman-EM-TV Methods with Application to Optical Nanoscopy. Lecture Notes in Computer Science, 2009, , 235-246.	1.3	34
154	Parallel Medical Image Reconstruction: From Graphics Processors to Grids. Lecture Notes in Computer Science, 2009, , 457-473.	1.3	5
155	Finite Element-Based Level Set Methods for Higher Order Flows. Journal of Scientific Computing, 2008, 35, 77-98.	2.3	8
156	Shape from Defocus via Diffusion. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2008, 30, 518-531.	13.9	136
157	Accurate EM-TV algorithm in PET with low SNR. , 2008, , .		71
158	A nonlinear variational method for improved quantification of myocardial blood flow using dynamic H<inf>2</inf>¹⁵O PET. , 2008, , .		12
159	Large time behavior of nonlocal aggregation models with nonlinear diffusion. Networks and Heterogeneous Media, 2008, 3, 749-785.	1.1	75
160	Asymptotic analysis of an advection-dominated chemotaxis model in multiple spatial dimensions. Communications in Mathematical Sciences, 2008, 6, 1-28.	1.0	36
161	The Willmore functional and instabilities in the Cahn-Hilliard equation. Communications in Mathematical Sciences, 2008, 6, 309-329.	1.0	7
162	Mini-Workshop: Anisotropic Motion Laws. Oberwolfach Reports, 2007, 3, 2277-2306.	0.0	0

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163	Global weak solutions of non-isothermal front propagation problem. Electronic Research Announcements in Mathematical Sciences, 2007, 13, 46-53.	0.7	2
164	Inverse Problems Related to Ion Channel Selectivity. SIAM Journal on Applied Mathematics, 2007, 67, 960-989.	1.8	58
165	Inverse Total Variation Flow. Multiscale Modeling and Simulation, 2007, 6, 366-395.	1.6	46
166	An Extension of the Kolmogorov-Avrami Formula to Inhomogeneous Birth-and-Growth Processes. , 2007, , 63-76.		4
167	Cavity identification in linear elasticity and thermoelasticity. Mathematical Methods in the Applied Sciences, 2007, 30, 625-647.	2.3	21
168	On an aggregation model with long and short range interactions. Nonlinear Analysis: Real World Applications, 2007, 8, 939-958.	1.7	114
169	A level set approach to anisotropic flows with curvature regularization. Journal of Computational Physics, 2007, 225, 183-205.	3.8	36
170	Inverse problems related to ion channels. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1120801-1120802.	0.2	5
171	Error estimation for Bregman iterations and inverse scale space methods in image restoration. Computing (Vienna/New York), 2007, 81, 109-135.	4.8	82
172	Optimization models for semiconductor dopant profiling. , 2007, , 91-115.		5
173	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
174	Regularizing Newton–Kaczmarz Methods for Nonlinear Ill-Posed Problems. SIAM Journal on Numerical Analysis, 2006, 44, 153-182.	2.3	54
175	Phaseâ€Field Relaxation of Topology Optimization with Local Stress Constraints. SIAM Journal on Control and Optimization, 2006, 45, 1447-1466.	2.1	136
176	Mesoscale Averaging of Nucleation and Growth Models. Multiscale Modeling and Simulation, 2006, 5, 564-592.	1.6	22
177	Iterative Total Variation Regularization with Non-Quadratic Fidelity. Journal of Mathematical Imaging and Vision, 2006, 26, 167-184.	1.3	21
178	A one Shot Approach to Topology Optimization with Local Stress Constraints. , 2006, , 181-184.		2
179	Surface diffusion including adatoms. Communications in Mathematical Sciences, 2006, 4, 1-51.	1.0	12
180	Nonlinear inverse scale space methods. Communications in Mathematical Sciences, 2006, 4, 179-212.	1.0	127

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181	Numerical simulation of anisotropic surface diffusion with curvature-dependent energy. Journal of Computational Physics, 2005, 203, 602-625.	3.8	21
182	Regularized Greedy Algorithms for Network Training with Data Noise. Computing (Vienna/New York), 2005, 74, 1-22.	4.8	5
183	Nonlinear Inverse Scale Space Methods for Image Restoration. Lecture Notes in Computer Science, 2005, , 25-36.	1.3	35
184	An Iterative Regularization Method for Total Variation-Based Image Restoration. Multiscale Modeling and Simulation, 2005, 4, 460-489.	1.6	1,477
185	A survey on level set methods for inverse problems and optimal design. European Journal of Applied Mathematics, 2005, 16, 263-301.	2.9	216
186	Convergence rates of convex variational regularization. Inverse Problems, 2004, 20, 1411-1421.	2.0	244
187	Growth of multiple crystals in polymer melts. European Journal of Applied Mathematics, 2004, 15, 347-363.	2.9	3
188	Optimal Control of Polymer Morphologies. Journal of Engineering Mathematics, 2004, 49, 339-358.	1.2	12
189	Incorporating topological derivatives into level set methods. Journal of Computational Physics, 2004, 194, 344-362.	3.8	291
190	Levenbergâ€“Marquardt level set methods for inverse obstacle problems. Inverse Problems, 2004, 20, 259-282.	2.0	48
191	Level set methods for geometric inverse problems in linear elasticity. Inverse Problems, 2004, 20, 673-696.	2.0	68
192	Scene and Motion Reconstruction from Defocused and Motion-Blurred Images via Anisotropic Diffusion. Lecture Notes in Computer Science, 2004, , 257-269.	1.3	15
193	Analysis of Tikhonov regularization for function approximation by neural networks. Neural Networks, 2003, 16, 79-90.	5.9	28
194	Fast Optimal Design of Semiconductor Devices. SIAM Journal on Applied Mathematics, 2003, 64, 108-126.	1.8	37
195	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
196	Crystal Growth and Impingement in Polymer Melts. , 2003, , 65-74.		3
197	Mathematical Models for Polymer Crystallization Processes. Mathematics in Industry, 2003, , 167-242.	0.3	4
198	Numerical Approximation of an SQP-Type Method for Parameter Identification. SIAM Journal on Numerical Analysis, 2002, 40, 1775-1797.	2.3	27

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199	Iterative regularization of parameter identification problems by sequential quadratic programming methods. Inverse Problems, 2002, 18, 943-969.	2.0	35
200	Modelling multi-dimensional crystallization of polymers in interaction with heat transfer. Nonlinear Analysis: Real World Applications, 2002, 3, 139-160.	1.7	34
201	A level set method for inverse problems. Inverse Problems, 2001, 17, 1327-1355.	2.0	139
202	Iterative Regularization of a Parameter Identification Problem Occurring in Polymer Crystallization. SIAM Journal on Numerical Analysis, 2001, 39, 1029-1055.	2.3	14
203	Regularization Methods for Blind Deconvolution and Blind Source Separation Problems. Mathematics of Control, Signals, and Systems, 2001, 14, 358-383.	2.3	17
204	Error Bounds for Approximation with Neural Networks. Journal of Approximation Theory, 2001, 112, 235-250.	0.8	42
205	Stochastic and Deterministic Simulation of Nonisothermal Crystallization of Polymers. Journal of Mathematical Chemistry, 2001, 30, 169-193.	1.5	30
206	MATHEMATICAL MODELLING AND SIMULATION OF NON-ISOTHERMAL CRYSTALLIZATION OF POLYMERS. Mathematical Models and Methods in Applied Sciences, 2001, 11, 1029-1053.	3.3	26
207	Identification of doping profiles in semiconductor devices. Inverse Problems, 2001, 17, 1765-1795.	2.0	39
208	Training neural networks with noisy data as an ill-posed problem. Advances in Computational Mathematics, 2000, 13, 335-354.	1.6	18
209	Inverse problems related to crystallization of polymers. Inverse Problems, 1999, 15, 155-173.	2.0	23
210	Mean-field models for segregation dynamics. European Journal of Applied Mathematics, 0, , 1-22.	2.9	1