

Marc Niethammer

List of Publications by Year in descending order

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Version: 2024-02-01

114
papers

3,452
citations

257450

24
h-index

182427

51
g-index

115
all docs

115
docs citations

115
times ranked

4007
citing authors

#	ARTICLE	IF	CITATIONS
1	The <sc>fairness–accuracy</sc> Pareto front. <i>Statistical Analysis and Data Mining</i> , 2022, 15, 287-302.	2.8	5
2	DADP: Dynamic abnormality detection and progression for longitudinal knee magnetic resonance images from the Osteoarthritis Initiative. <i>Medical Image Analysis</i> , 2022, 77, 102343.	11.6	7
3	General anaesthesia during infancy reduces white matter micro-organisation in developing rhesus monkeys. <i>British Journal of Anaesthesia</i> , 2021, 126, 845-853.	3.4	17
4	Votenet++: Registration Refinement For Multi-Atlas Segmentation. , 2021, , .		2
5	Deep–learning–based image registration and automatic segmentation of organs–at–risk in cone–beam CT scans from high–dose radiation treatment of pancreatic cancer. <i>Medical Physics</i> , 2021, 48, 3084-3095.	3.0	20
6	Perfusion Imaging: An Advection Diffusion Approach. <i>IEEE Transactions on Medical Imaging</i> , 2021, 40, 3424-3435.	8.9	3
7	Discovering Hidden Physics Behind Transport Dynamics. , 2021, , .		2
8	ICON: Learning Regular Maps Through Inverse Consistency. , 2021, 2021, 3376-3385.		9
9	Joint and individual analysis of breast cancer histologic images and genomic covariates. <i>Annals of Applied Statistics</i> , 2021, 15, 1697-1722.	1.1	4
10	A discretize–optimize approach for LDDMM registration. , 2020, , 479-532.		3
11	Votenet +: An Improved Deep Learning Label Fusion Method for Multi-Atlas Segmentation. , 2020, 2020, 363-367.		13
12	Computational methods for visualizing and measuring verapamil efficacy for cerebral vasospasm. <i>Scientific Reports</i> , 2020, 10, 18780.	3.3	2
13	Adversarial Data Augmentation via Deformation Statistics. <i>Lecture Notes in Computer Science</i> , 2020, , 643-659.	1.3	7
14	A Deep Network for Joint Registration and Reconstruction of Images with Pathologies. <i>Lecture Notes in Computer Science</i> , 2020, 12436, 342-352.	1.3	7
15	PIANO: Perfusion Imaging via Advection-Diffusion. <i>Lecture Notes in Computer Science</i> , 2020, , 688-698.	1.3	1
16	Fast predictive simple geodesic regression. <i>Medical Image Analysis</i> , 2019, 56, 193-209.	11.6	5
17	Metric Learning for Image Registration. , 2019, 2019, 8455-8464.		50
18	Networks for Joint Affine and Non-Parametric Image Registration. , 2019, 2019, 4219-4228.		64

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19	DeepAtlas: Joint Semi-supervised Learning of Image Registration and Segmentation. Lecture Notes in Computer Science, 2019, , 420-429.	1.3	67
20	VoteNet: A Deep Learning Label Fusion Method for Multi-atlas Segmentation. Lecture Notes in Computer Science, 2019, , 202-210.	1.3	43
21	Patient-Specific Registration of Pre-operative and Post-recurrence Brain Tumor MRI Scans. Lecture Notes in Computer Science, 2019, 11383, 105-114.	1.3	6
22	Multiseg pipeline: automatic tissue segmentation of brain MR images with subject-specific atlases. , 2019, 10953, .		0
23	Automatic Multi-Atlas Segmentation for Abdominal Images Using Template Construction and Robust Principal Component Analysis. , 2018, , .		1
24	Image analysis with deep learning to predict breast cancer grade, ER status, histologic subtype, and intrinsic subtype. Npj Breast Cancer, 2018, 4, 30.	5.2	193
25	Compressing Networks with Super Nodes. Scientific Reports, 2018, 8, 10892.	3.3	22
26	Brain extraction from normal and pathological images: A joint PCA/Image-Reconstruction approach. NeuroImage, 2018, 176, 431-445.	4.2	20
27	Contextual Additive Networks to Efficiently Boost 3D Image Segmentations. , 2018, 11045, 92-100.		1
28	Active Mean Fields for Probabilistic Image Segmentation: Connections with Chan–Vese and Rudin–Osher–Fatemi Models. SIAM Journal on Imaging Sciences, 2017, 10, 1069-1103.	2.2	3
29	Efficient registration of pathological images: A joint PCA/image-reconstruction approach. , 2017, 2017, 10-14.		9
30	Quicksilver: Fast predictive image registration “ A deep learning approach. NeuroImage, 2017, 158, 378-396.	4.2	444
31	The UNC-Wisconsin Rhesus Macaque Neurodevelopment Database: A Structural MRI and DTI Database of Early Postnatal Development. Frontiers in Neuroscience, 2017, 11, 29.	2.8	45
32	Fast Predictive Simple Geodesic Regression. Lecture Notes in Computer Science, 2017, , 267-275.	1.3	5
33	Quantitative assessment of the upper airway in infants and children with subglottic stenosis. Laryngoscope, 2016, 126, 1225-1231.	2.0	25
34	Registration of Pathological Images. Lecture Notes in Computer Science, 2016, 9968, 97-107.	1.3	16
35	Parametric Regression on the Grassmannian. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 2284-2297.	13.9	12
36	Robust estimation of group-wise cortical correspondence with an application to macaque and human neuroimaging studies. Frontiers in Neuroscience, 2015, 9, 210.	2.8	18

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37	Splines for diffeomorphisms. Medical Image Analysis, 2015, 25, 56-71.	11.6	18
38	Shape analysis based on depth-ordering. Medical Image Analysis, 2015, 25, 2-10.	11.6	2
39	Diseased Region Detection of Longitudinal Knee Magnetic Resonance Imaging Data. IEEE Transactions on Medical Imaging, 2015, 34, 1914-1927.	8.9	12
40	Appearance normalization of histology slides. Computerized Medical Imaging and Graphics, 2015, 43, 89-98.	5.8	25
41	Scene Parsing with Object Instance Inference Using Regions and Per-exemplar Detectors. International Journal of Computer Vision, 2015, 112, 150-171.	15.6	18
42	Low-Rank Atlas Image Analyses in the Presence of Pathologies. IEEE Transactions on Medical Imaging, 2015, 34, 2583-2591.	8.9	40
43	Scene Parsing with Object Instances and Occlusion Ordering. , 2014, , .		89
44	Large deformation diffeomorphic registration of diffusion-weighted imaging data. Medical Image Analysis, 2014, 18, 1290-1298.	11.6	19
45	Splines for Diffeomorphic Image Regression. Lecture Notes in Computer Science, 2014, 17, 121-129.	1.3	11
46	Automatic atlas-based three-label cartilage segmentation from MR knee images. Medical Image Analysis, 2014, 18, 1233-1246.	11.6	71
47	Statistical atlas construction via weighted functional boxplots. Medical Image Analysis, 2014, 18, 684-698.	11.6	12
48	Multi-modal registration for correlative microscopy using image analogies. Medical Image Analysis, 2014, 18, 914-926.	11.6	36
49	Low-Rank to the Rescue – Atlas-Based Analyses in the Presence of Pathologies. Lecture Notes in Computer Science, 2014, 17, 97-104.	1.3	24
50	Depth-Based Shape-Analysis. Lecture Notes in Computer Science, 2014, 17, 17-24.	1.3	2
51	Time-Warped Geodesic Regression. Lecture Notes in Computer Science, 2014, 17, 105-112.	1.3	9
52	Longitudinal three-label segmentation of knee cartilage. , 2013, , .		0
53	Longitudinal Image Registration With Temporally-Dependent Image Similarity Measure. IEEE Transactions on Medical Imaging, 2013, 32, 1939-1951.	8.9	14
54	Segmentation with area constraints. Medical Image Analysis, 2013, 17, 101-112.	11.6	16

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55	Diffusion Tensor Imaging-Based Characterization of Brain Neurodevelopment in Primates. Cerebral Cortex, 2013, 23, 36-48.	2.9	49
56	A Locally Adaptive Regularization Based on Anisotropic Diffusion for Deformable Image Registration of Sliding Organs. IEEE Transactions on Medical Imaging, 2013, 32, 2114-2126.	8.9	61
57	A pediatric airway atlas and its application in subglottic stenosis. , 2013, 2013, 1206-1209.		7
58	Weighted Functional Boxplot with Application to Statistical Atlas Construction. Lecture Notes in Computer Science, 2013, 16, 584-591.	1.3	3
59	Sparse Scale-Space Decomposition of Volume Changes in Deformations Fields. Lecture Notes in Computer Science, 2013, 16, 328-335.	1.3	3
60	Robust Multimodal Dictionary Learning. Lecture Notes in Computer Science, 2013, 16, 259-266.	1.3	9
61	Large Deformation Image Classification Using Generalized Locality-Constrained Linear Coding. Lecture Notes in Computer Science, 2013, 16, 292-299.	1.3	12
62	Large Deformation Diffeomorphic Registration of Diffusion-Weighted Images with Explicit Orientation Optimization. Lecture Notes in Computer Science, 2013, 16, 27-34.	1.3	7
63	Automatic multi-atlas-based cartilage segmentation from knee MR images. , 2012, 2012, 1028-1031.		16
64	Automatic atlas-based three-label cartilage segmentation from MR knee images. , 2012, , 241-246.		8
65	LQG-obstacles: Feedback control with collision avoidance for mobile robots with motion and sensing uncertainty. , 2012, , .		59
66	Image and statistical analysis of melanocytic histology. Histopathology, 2012, 61, 436-444.	2.9	15
67	Sliding Geometries in Deformable Image Registration. Lecture Notes in Computer Science, 2012, , 141-148.	1.3	7
68	Metamorphic Geodesic Regression. Lecture Notes in Computer Science, 2012, 15, 197-205.	1.3	19
69	Temporally-Dependent Image Similarity Measure for Longitudinal Analysis. Lecture Notes in Computer Science, 2012, , 99-109.	1.3	2
70	Longitudinal Image Registration with Non-uniform Appearance Change. Lecture Notes in Computer Science, 2012, 15, 280-288.	1.3	3
71	An Optimal Control Approach for Texture Metamorphosis. Computer Graphics Forum, 2011, 30, 2341-2353.	3.0	3
72	The power of correlative microscopy: multi-modal, multi-scale, multi-dimensional. Current Opinion in Structural Biology, 2011, 21, 686-693.	5.7	139

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73	Shape analysis of the neostriatum in subtypes of frontotemporal lobar degeneration: Neuroanatomically significant regional morphologic change. <i>Psychiatry Research - Neuroimaging</i> , 2011, 191, 98-111.	1.8	21
74	Shape alterations in the striatum in chorea-acanthocytosis. <i>Psychiatry Research - Neuroimaging</i> , 2011, 192, 29-36.	1.8	49
75	Deformable image registration of sliding organs using anisotropic diffusive regularization. , 2011, , 407-413.		20
76	Geometric Metamorphosis. <i>Lecture Notes in Computer Science</i> , 2011, 14, 639-646.	1.3	34
77	Geodesic Regression for Image Time-Series. <i>Lecture Notes in Computer Science</i> , 2011, 14, 655-662.	1.3	98
78	Attenuation Analysis of Lamb Waves Using the Chirplet Transform. <i>Eurasip Journal on Advances in Signal Processing</i> , 2010, 2010, .	1.7	13
79	Physically-based deformable image registration with material property and boundary condition estimation. , 2010, , .		1
80	Automatic three-label bone segmentation from knee MR images. , 2010, , .		7
81	Appearance Normalization of Histology Slides. <i>Lecture Notes in Computer Science</i> , 2010, 6357, 58-66.	1.3	50
82	Continuous maximal flows and Wulff shapes: Application to MRFs. , 2009, 2009, 1911-1918.		21
83	Laplace's Beltrami eigenvalues and topological features of eigenfunctions for statistical shape analysis. <i>CAD Computer Aided Design</i> , 2009, 41, 739-755.	2.7	167
84	Shape abnormalities of caudate nucleus in schizotypal personality disorder. <i>Schizophrenia Research</i> , 2009, 110, 127-139.	2.0	32
85	An optimal control approach for deformable registration. , 2009, , .		31
86	Near-tubular fiber bundle segmentation for diffusion weighted imaging: Segmentation through frame reorientation. <i>NeuroImage</i> , 2009, 45, S123-S132.	4.2	8
87	Globally Optimal Finsler Active Contours. <i>Lecture Notes in Computer Science</i> , 2009, 5748, 552-561.	1.3	18
88	An optimal control approach for deformable registration. , 2009, , .		6
89	Restoration of DWI Data Using a Rician LMMSE Estimator. <i>IEEE Transactions on Medical Imaging</i> , 2008, 27, 1389-1403.	8.9	132
90	Geometric Observers for Dynamically Evolving Curves. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2008, 30, 1093-1108.	13.9	18

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91	Knowledge-Based Segmentation for Tracking Through Deep Turbulence. IEEE Transactions on Control Systems Technology, 2008, 16, 469-474.	5.2	9
92	Locally-Constrained Region-Based Methods for DW-MRI Segmentation. , 2007, , 1-8.		9
93	Global Medical Shape Analysis Using the Volumetric Laplace Spectrum. , 2007, , .		19
94	Dispersive Wave Analysis Using the Chirplet Transform. AIP Conference Proceedings, 2007, , .	0.4	0
95	Global Medical Shape Analysis Using the Laplace-Beltrami Spectrum. , 2007, 10, 850-857.		60
96	Outlier Rejection for Diffusion Weighted Imaging. , 2007, 10, 161-168.		7
97	Dynamic Active Contours for Visual Tracking. IEEE Transactions on Automatic Control, 2006, 51, 562-579.	5.7	38
98	On diffusion tensor estimation. , 2006, Suppl, 6707-10.		4
99	On the detection of simple points in higher dimensions using cubical homology. IEEE Transactions on Image Processing, 2006, 15, 2462-2469.	9.8	11
100	Lamb wave characterization by differential reassignment and non-linear anisotropic diffusion. NDT and E International, 2006, 39, 96-105.	3.7	15
101	On Diffusion Tensor Estimation. , 2006, 2006, 2622-5.		18
102	Model-based analysis of dispersion curves using chirplets. Journal of the Acoustical Society of America, 2006, 119, 2122-2130.	1.1	54
103	Fiber Bundle Estimation and Parameterization. Lecture Notes in Computer Science, 2006, 9, 252-259.	1.3	5
104	On Diffusion Tensor Estimation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
105	Differential Reassignment for Lamb Wave Characterization. AIP Conference Proceedings, 2005, , .	0.4	3
106	On the Evolution of Vector Distance Functions of Closed Curves. International Journal of Computer Vision, 2005, 65, 5-27.	15.6	2
107	Area-Based Medial Axis of Planar Curves. International Journal of Computer Vision, 2004, 60, 203-224.	15.6	12
108	Localization of notches with Lamb waves. Journal of the Acoustical Society of America, 2003, 114, 677-685.	1.1	41

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109	Time-frequency representations of Lamb waves. Journal of the Acoustical Society of America, 2001, 109, 1841-1847.	1.1	236
110	Automated methodology to locate notches with Lamb waves. Acoustics Research Letters Online: ARLO, 2001, 2, 97-102.	0.7	24
111	Crack characterization using guided circumferential waves. Journal of the Acoustical Society of America, 2001, 110, 1282-1290.	1.1	74
112	Application of the short time Fourier transform to interpret ultrasonic signals. AIP Conference Proceedings, 2000, , .	0.4	5
113	Time-frequency representation of Lamb waves using the reassigned spectrogram. Journal of the Acoustical Society of America, 2000, 107, L19-L24.	1.1	76
114	A feature-based affine registration method for capturing background lung tissue deformation for ground glass nodule tracking. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 0, , 1-19.	1.9	0