Joachim M Buhmann

List of Publications by Year
in descending order

61 papers	4,752 citations	331259 21 h-index	315357 38 g-index
61 all docs	61 docs citations	61 times ranked	7861 citing authors

#	Article	IF	Citations
1	Assessment of Artificial Intelligence in Echocardiography Diagnostics in Differentiating Takotsubo Syndrome From Myocardial Infarction. JAMA Cardiology, 2022, 7, 494.	3.0	18
2	Automatic Detection of Atrial Fibrillation from Single-Lead ECG Using Deep Learning of the Cardiac Cycle. BME Frontiers, 2022, 2022, .	2.2	9
3	Entrack: Probabilistic Spherical Regression with Entropy Regularization for Fiber Tractography. International Journal of Computer Vision, 2021, 129, 656-680.	10.9	8
4	Improving 1-year mortality prediction in ACS patients using machine learning. European Heart Journal: Acute Cardiovascular Care, 2021, 10, 855-865.	0.4	9
5	Self-supervised representation learning for surgical activity recognition. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 2037-2044.	1.7	3
6	Instance Segmentation for the Quantification of Microplastic Fiber Images. , 2020, , .		7
7	Generative Aging Of Brain MRI For Early Prediction Of MCI-AD Conversion. , 2019, , .		13
8	SPINDLE: End-to-end learning from EEG/EMG to extrapolate animal sleep scoring across experimental settings, labs and species. PLoS Computational Biology, 2019, 15, e1006968.	1.5	51
9	Validity of GRE General Test scores and TOEFL scores for graduate admission to a technical university in Western Europe. European Journal of Engineering Education, 2018, 43, 144-165.	1.5	6
10	Wheel Defect Detection With Machine Learning. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 1176-1187.	4.7	145
11	A generative model of whole-brain effective connectivity. NeuroImage, 2018, 179, 505-529.	2.1	83
12	Regression DCM for fMRI. NeuroImage, 2017, 155, 406-421.	2.1	124
13	Glaucoma detection using entropy sampling and ensemble learning for automatic optic cup and disc segmentation. Computerized Medical Imaging and Graphics, 2017, 55, 28-41.	3.5	278
14	TI-POOLING: Transformation-Invariant Pooling for Feature Learning in Convolutional Neural Networks. , 2016, , .		143
15	Information-theoretic analysis of MaxCut algorithms. , 2016, , .		0
16	Is There an Association Between Pain and Magnetic Resonance Imaging Parameters in Patients With Lumbar Spinal Stenosis?. Spine, 2016, 41, E1053-E1062.	1.0	44
17	Active learning based segmentation of Crohns disease from abdominal MRI. Computer Methods and Programs in Biomedicine, 2016, 128, 75-85.	2.6	21
18	Visual saliency-based active learning for prostate magnetic resonance imaging segmentation. Journal of Medical Imaging, 2016, 3, 014003.	0.8	10

#	Article	IF	Citations
19	Prediction of colorectal cancer diagnosis based onÂcirculating plasma proteins. EMBO Molecular Medicine, 2015, 7, 1166-1178.	3.3	80
20	Greedy MaxCut algorithms and their information content. , 2015, , .		4
21	Automatic single cell segmentation on highly multiplexed tissue images. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2015, 87, 936-942.	1.1	53
22	Crowdsourcing the creation of image segmentation algorithms for connectomics. Frontiers in Neuroanatomy, 2015, 9, 142.	0.9	248
23	Inversion of hierarchical Bayesian models using Gaussian processes. NeuroImage, 2015, 118, 133-145.	2.1	12
24	Asymptotic analysis of estimators on multi-label data. Machine Learning, 2015, 99, 373-409.	3.4	0
25	Inferring causal metabolic signals that regulate the dynamic <scp>TORC</scp>1â€dependent transcriptome. Molecular Systems Biology, 2015, 11, 802.	3.2	49
26	A field of experts model for optic cup and disc segmentation from retinal fundus images. , 2015, , .		8
27	How informative are Minimum Spanning Tree algorithms?. , 2014, , .		6
28	Highly multiplexed imaging of tumor tissues with subcellular resolution by mass cytometry. Nature Methods, 2014, 11, 417-422.	9.0	1,430
29	Sparse feature selection by information theory. , 2014, , .		2
30	Dissecting psychiatric spectrum disorders by generative embedding. NeuroImage: Clinical, 2014, 4, 98-111.	1.4	150
31	Crohn's disease tissue segmentation from abdominal MRI using semantic information and graph cuts. , 2013, , .		8
32	Weakly supervised semantic segmentation of Crohn's disease tissues from abdominal MRI. , 2013, , .		5
33	Automatic cardiac RV segmentation using semantic information with graph cuts. , 2013, , .		17
34	Semi-Supervised and Active Learning for Automatic Segmentation of Crohnâ€™s Disease. Lecture Notes in Computer Science, 2013, 16, 214-221.	1.0	18
35	The information content in sorting algorithms. , 2012, , .		7
36	Learning Dictionaries With Bounded Self-Coherence. IEEE Signal Processing Letters, 2012, 19, 861-864.	2.1	39

#	Article	IF	Citations
37	Weakly supervised structured output learning for semantic segmentation. , 2012, , .		96
38	Generic Comparison of Protein Inference Engines. Molecular and Cellular Proteomics, 2012, 11, O110.007088.	2.5	20
39	Speech Enhancement Using Generative Dictionary Learning. IEEE Transactions on Audio Speech and Language Processing, 2012, 20, 1698-1712.	3.8	82
40	Selecting the rank of truncated SVD by maximum approximation capacity. , 2011, , .		8
41	The Minimum Transfer Cost Principle for Model-Order Selection. Lecture Notes in Computer Science, 2011, , 423-438.	1.0	5
42	Proteome Coverage Prediction for Integrated Proteomics Datasets. Journal of Computational Biology, 2011, 18, 283-293.	0.8	8
43	Regularized online learning of pseudometrics. , 2010, , .		0
44	Speech enhancement with sparse coding in learned dictionaries. , 2010, , .		41
45	Information theoretic model validation for clustering. , 2010, , .		26
46	Neuron geometry extraction by perceptual grouping in ssTEM images. , 2010, , .		58
47	The Binormal Assumption on Precision-Recall Curves. , 2010, , .		40
48	Proteome Coverage Prediction for Integrated Proteomics Datasets. Lecture Notes in Computer Science, 2010, , 96-109.	1.0	2
49	Inter-active learning of randomized tree ensembles for object detection. , 2009, , .		4
50	Stable Bayesian Parameter Estimation for Biological Dynamical Systems. , 2009, , .		11
51	Multi-assignment clustering for Boolean data. , 2009, , .		44
52	Seeing the Objects Behind the Dots: Recognition in Videos fromÂaÂMoving Camera. International Journal of Computer Vision, 2009, 83, 57-71.	10.9	33
53	Protein Identification False Discovery Rates for Very Large Proteomics Data Sets Generated by Tandem Mass Spectrometry. Molecular and Cellular Proteomics, 2009, 8, 2405-2417.	2.5	282
54	Nonparametric Bayesian Image Segmentation. International Journal of Computer Vision, 2008, 77, 25-45.	10.9	81

#	Article	IF	Citations
55	Robust Image Segmentation Using Resampling and Shape Constraints. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2007, 29, 1147-1164.	9.7	15
56	Bayesian Order-Adaptive Clustering for Video Segmentation. Lecture Notes in Computer Science, 2007, , 334-349.	1.0	1
57	On the information and representation of non-Euclidean pairwise data. Pattern Recognition, 2006, 39, 1815-1826.	5.1	49
58	Smooth Image Segmentation by Nonparametric Bayesian Inference. Lecture Notes in Computer Science, 2006, , 444-457.	1.0	11
59	Stability-Based Validation of Clustering Solutions. Neural Computation, 2004, 16, 1299-1323.	1.3	389
60	Empirical Evaluation of Dissimilarity Measures for Color and Texture. Computer Vision and Image Understanding, 2001, 84, 25-43.	3.0	259
61	Histogram clustering for unsupervised segmentation and image retrieval. Pattern Recognition Letters, 1999, 20, 899-909.	2.6	79