Bjoern H Menze

List of Publications by Citations

102 papers	5,849 citations	34 h-index	76 g-index
107 ext. papers	7,682 ext. citations	6.7 avg, IF	5.32 L-index

#	Paper	IF	Citations
102	The Multimodal Brain Tumor Image Segmentation Benchmark (BRATS). *IEEE Transactions on Medical Imaging*, **2015**, 34, 1993-2024	11.7	2132
101	A comparison of random forest and its Gini importance with standard chemometric methods for the feature selection and classification of spectral data. *BMC Bioinformatics*, **2009**, 10, 213	3.6	471
100	ISLES 2015 - A public evaluation benchmark for ischemic stroke lesion segmentation from multispectral MRI. *Medical Image Analysis*, **2017**, 35, 250-269	15.4	248
99	Automatic Liver and Lesion Segmentation in CT Using Cascaded Fully Convolutional Neural Networks and 3D Conditional Random Fields. *Lecture Notes in Computer Science*, **2016**, 415-423	0.9	213
98	Spatial decision forests for MS lesion segmentation in multi-channel magnetic resonance images. *NeuroImage*, **2011**, 57, 378-90	7.9	198
97	Panoptic imaging of transparent mice reveals whole-body neuronal projections and skull-meninges connections. *Nature Neuroscience*, **2019**, 22, 317-327	25.5	163
96	Robust prediction of the MASCOT score for an improved quality assessment in mass spectrometric proteomics. *Journal of Proteome Research*, **2008**, 7, 3708-17	5.6	141
95	Why rankings of biomedical image analysis competitions should be interpreted with care. *Nature Communications*, **2018**, 9, 5217	17.4	112
94	A generative model for brain tumor segmentation in multi-modal images. *Lecture Notes in Computer Science*, **2010**, 13, 151-9	0.9	103
93	Mapping patterns of long-term settlement in Northern Mesopotamia at a large scale. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, E778-87	11.5	98
92	Cellular and Molecular Probing of Intact Human Organs. *Cell*, **2020**, 180, 796-812.e19	56.2	96
91	Fully convolutional network ensembles for white matter hyperintensities segmentation in MR images. *NeuroImage*, **2018**, 183, 650-665	7.9	95
90	Machine learning analysis of whole mouse brain vasculature. *Nature Methods*, **2020**, 17, 442-449	21.6	94
89	Cloud-Based Evaluation of Anatomical Structure Segmentation and Landmark Detection Algorithms: VISCERAL Anatomy Benchmarks. *IEEE Transactions on Medical Imaging*, **2016**, 35, 2459-2475	11.7	89
88	Deep Learning Reveals Cancer Metastasis and Therapeutic Antibody Targeting in the Entire Body. *Cell*, **2019**, 179, 1661-1676.e19	56.2	78
87	Efficient probabilistic model personalization integrating uncertainty on data and parameters: Application to eikonal-diffusion models in cardiac electrophysiology. *Progress in Biophysics and Molecular Biology*, **2011**, 107, 134-46	4.7	68
86	Global localization of 3D anatomical structures by pre-filtered Hough forests and discrete optimization. *Medical Image Analysis*, **2013**, 17, 1304-14	15.4	67

85	Detection of Ancient Settlement Mounds. *Photogrammetric Engineering and Remote Sensing*, **2006**, 72, 321-327	1.6	59
84	Joint 3-D vessel segmentation and centerline extraction using oblique Hough forests with steerable filters. *Medical Image Analysis*, **2015**, 19, 220-49	15.4	55
83	A Generative Probabilistic Model and Discriminative Extensions for Brain Lesion Segmentation--With Application to Tumor and Stroke. *IEEE Transactions on Medical Imaging*, **2016**, 35, 933-46	11.7	54
82	Segmentation of image ensembles via latent atlases. *Medical Image Analysis*, **2010**, 14, 654-65	15.4	53
81	Automated Whole-Body Bone Lesion Detection for Multiple Myeloma on Ga-Pentixafor PET/CT Imaging Using Deep Learning Methods. *Contrast Media and Molecular Imaging*, **2018**, 2018, 2391925	3.2	51
80	Diffusion tensor image features predict IDH genotype in newly diagnosed WHO grade II/III gliomas. *Scientific Reports*, **2017**, 7, 13396	4.9	50
79	Multivariate feature selection and hierarchical classification for infrared spectroscopy: serum-based detection of bovine spongiform encephalopathy. *Analytical and Bioanalytical Chemistry*, **2007**, 387, 1801-7	4.4	47
78	Detecting stable distributed patterns of brain activation using Gini contrast. *NeuroImage*, **2011**, 56, 497-507	7.9	46
77	Personalized Radiotherapy Design for Glioblastoma: Integrating Mathematical Tumor Models, Multimodal Scans, and Bayesian Inference. *IEEE Transactions on Medical Imaging*, **2019**, 38, 1875-1884	11.7	45
76	Radiotherapy planning for glioblastoma based on a tumor growth model: improving target volume delineation. *Physics in Medicine and Biology*, **2014**, 59, 747-70	3.8	45
75	A generative approach for image-based modeling of tumor growth. *Lecture Notes in Computer Science*, **2011**, 22, 735-47	0.9	40
74	Automated estimation of tumor probability in prostate magnetic resonance spectroscopic imaging: pattern recognition vs quantification. *Magnetic Resonance in Medicine*, **2007**, 57, 150-9	4.4	39
73	qPSMA: Semiautomatic Software for Whole-Body Tumor Burden Assessment in Prostate Cancer Using Ga-PSMA11 PET/CT. *Journal of Nuclear Medicine*, **2019**, 60, 1277-1283	8.9	35
72	Estimating kinetic parameter maps from dynamic contrast-enhanced MRI using spatial prior knowledge. *IEEE Transactions on Medical Imaging*, **2009**, 28, 1534-47	11.7	35
71	Analysing spatio-temporal patterns of the global NO₂-distribution retrieved from GOME satellite observations using a generalized additive model. *Atmospheric Chemistry and Physics*, **2009**, 9, 6459-6477	6.8	35
70	Automated Cardiac MR Scar Quantification in Hypertrophic Cardiomyopathy Using Deep Convolutional Neural Networks. *JACC: Cardiovascular Imaging*, **2018**, 11, 1917-1918	8.4	34
69	Deep neural network for automatic characterization of lesions on Ga-PSMA-11 PET/CT. *European Journal of Nuclear Medicine and Molecular Imaging*, **2020**, 47, 603-613	8.8	34
68	Spatio-temporal video segmentation with shape growth or shrinkage constraint. *IEEE Transactions on Image Processing*, **2014**, 23, 3829-40	8.7	33

67	Exploring New Multimodal Quantitative Imaging Indices for the Assessment of Osseous Tumor Burden in Prostate Cancer Using Ga-PSMA PET/CT. *Journal of Nuclear Medicine*, **2017**, 58, 1632-1637	8.9	28
66	Radiotherapy planning for glioblastoma based on a tumor growth model: implications for spatial dose redistribution. *Physics in Medicine and Biology*, **2014**, 59, 771-89	3.8	27
65	Deep-Learning Generated Synthetic Double Inversion Recovery Images Improve Multiple Sclerosis Lesion Detection. *Investigative Radiology*, **2020**, 55, 318-323	10.1	25
64	Mimicking the human expert: pattern recognition for an automated assessment of data quality in MR spectroscopic images. *Magnetic Resonance in Medicine*, **2008**, 59, 1457-66	4.4	25
63	Automatic segmentation of abdominal organs and adipose tissue compartments in water-fat MRI: Application to weight-loss in obesity. *European Journal of Radiology*, **2016**, 85, 1613-21	4.7	25
62	Btrfly Net: Vertebrae Labelling with Energy-Based Adversarial Learning of Local Spine Prior. *Lecture Notes in Computer Science*, **2018**, 649-657	0.9	24
61	Deep learning-enabled multi-organ segmentation in whole-body mouse scans. *Nature Communications*, **2020**, 11, 5626	17.4	21
60	DiamondGAN: Unified Multi-modal Generative Adversarial Networks for MRI Sequences Synthesis. *Lecture Notes in Computer Science*, **2019**, 795-803	0.9	21
59	Three-dimensional holographic visualization of high-resolution myocardial scar on HoloLens. *PLoS ONE*, **2018**, 13, e0205188	3.7	21
58	BraTS Toolkit: Translating BraTS Brain Tumor Segmentation Algorithms Into Clinical and Scientific Practice. *Frontiers in Neuroscience*, **2020**, 14, 125	5.1	20
57	Reconstructing cerebrovascular networks under local physiological constraints by integer programming. *Medical Image Analysis*, **2015**, 25, 86-94	15.4	17
56	Deep learning derived tumor infiltration maps for personalized target definition in Glioblastoma radiotherapy. *Radiotherapy and Oncology*, **2019**, 138, 166-172	5.3	17
55	Wall shear stress estimation in the aorta: Impact of wall motion, spatiotemporal resolution, and phase noise. *Journal of Magnetic Resonance Imaging*, **2018**, 48, 718	5.6	14
54	Deep complex convolutional network for fast reconstruction of 3D late gadolinium enhancement cardiac MRI. *NMR in Biomedicine*, **2020**, 33, e4312	4.4	13
53	Convolutional Neural Networks for Direct Inference of Pharmacokinetic Parameters: Application to Stroke Dynamic Contrast-Enhanced MRI. *Frontiers in Neurology*, **2018**, 9, 1147	4.1	12
52	Local Conduction Velocity in the Presence of Late Gadolinium Enhancement and Myocardial Wall Thinning: A Cardiac Magnetic Resonance Study in a Swine Model of Healed Left Ventricular Infarction. *Circulation: Arrhythmia and Electrophysiology*, **2019**, 12, e007175	6.4	12
51	Brain extraction from normal and pathological images: A joint PCA/Image-Reconstruction approach. *NeuroImage*, **2018**, 176, 431-445	7.9	12
50	Using spatial prior knowledge in the spectral fitting of MRS images. *NMR in Biomedicine*, **2012**, 25, 1-13	4.4	12

49	A diffusion model-free framework with echo time dependence for free-water elimination and brain tissue microstructure characterization. *Magnetic Resonance in Medicine*, **2018**, 80, 2155-2172	4.4	11
48	Deep-FExt: Deep Feature Extraction for Vessel Segmentation and Centerline Prediction. *Lecture Notes in Computer Science*, **2017**, 344-352	0.9	11
47	Gold Nanoparticle Mediated Multi-Modal CT Imaging of Hsp70 Membrane-Positive Tumors. *Cancers* , **2020**, 12,	6.6	10
46	Predicting Glioblastoma Recurrence from Preoperative MR Scans Using Fractional-Anisotropy Maps with Free-Water Suppression. *Cancers*, **2020**, 12,	6.6	10
45	Quantification of Metabolites in Magnetic Resonance Spectroscopic Imaging Using Machine Learning. *Lecture Notes in Computer Science*, **2017**, 462-470	0.9	10
44	DeepASL: Kinetic Model Incorporated Loss for Denoising Arterial Spin Labeled MRI via Deep Residual Learning. *Lecture Notes in Computer Science*, **2018**, 30-38	0.9	10
43	SurvivalNet: Predicting patient survival from diffusion weighted magnetic resonance images using cascaded fully convolutional and 3D Convolutional Neural Networks **2017**,		9
42	An automatic multi-tissue human fetal brain segmentation benchmark using the Fetal Tissue Annotation Dataset. *Scientific Data*, **2021**, 8, 167	8.2	9
41	Designing contrasts for rapid, simultaneous parameter quantification and flow visualization with quantitative transient-state imaging. *Scientific Reports*, **2019**, 9, 8468	4.9	8
40	Multitemporal Fusion for the Detection of Static Spatial Patterns in Multispectral Satellite Images With Application to Archaeological Survey. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2014**, 7, 3513-3524	4.7	8
39	Volumetry based biomarker speed of growth: Quantifying the change of total tumor volume in whole-body magnetic resonance imaging over time improves risk stratification of smoldering multiple myeloma patients. *Oncotarget*, **2018**, 9, 25254-25264	3.3	8
38	Differential Diagnosis for Pancreatic Cysts in CT Scans Using Densely-Connected Convolutional Networks. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2019**, 2019, 2095-2098	0.9	8
37	Segmentation of Skeleton and Organs in Whole-Body CT Images via Iterative Trilateration. *IEEE Transactions on Medical Imaging*, **2017**, 36, 2276-2286	11.7	7
36	Neural Parameters Estimation for Brain Tumor Growth Modeling. *Lecture Notes in Computer Science* , **2019**, 787-795	0.9	7
35	Cell Lineage Tracing in Lens-Free Microscopy Videos. *Lecture Notes in Computer Science*, **2017**, 3-11	0.9	7
34	Diabetes60 Inferring Bread Units From Food Images Using Fully Convolutional Neural Networks **2017**,		6
33	Direct Estimation of Pharmacokinetic Parameters from DCE-MRI Using Deep CNN with Forward Physical Model Loss. *Lecture Notes in Computer Science*, **2018**, 39-47	0.9	6
32	Efficient Algorithms for Moral Lineage Tracing **2017**,		5

31	Extracting vascular networks under physiological constraints via integer programming. *Lecture Notes in Computer Science*, **2014**, 17, 505-12	0.9	5
30	Automated vs. manual pattern recognition of 3D (1)H MRSI data of patients with prostate cancer. *Academic Radiology*, **2012**, 19, 675-84	4.3	5
29	c-Rel gain in B cells drives germinal center reactions and autoantibody production. *Journal of Clinical Investigation*, **2020**, 130, 3270-3286	15.9	5
28	Automated processing of webcam images for phenological classification. *PLoS ONE*, **2017**, 12, e0171918	3.7	5
27	A computed tomography vertebral segmentation dataset with anatomical variations and multi-vendor scanner data. *Scientific Data*, **2021**, 8, 284	8.2	5
26	How to Exploit Weaknesses in Biomedical Challenge Design and Organization. *Lecture Notes in Computer Science*, **2018**, 388-395	0.9	5
25	Human-Drone-Interaction: A Case Study to Investigate the Relation Between Autonomy and User Experience. *Lecture Notes in Computer Science*, **2016**, 238-253	0.9	4
24	Probabilistic Point Cloud Reconstructions for Vertebral Shape Analysis. *Lecture Notes in Computer Science*, **2019**, 375-383	0.9	4
23	Enforcing Monotonous Shape Growth or Shrinkage in Video Segmentation **2013**,		4
22	A Radiomics Approach to Traumatic Brain Injury Prediction in CT Scans **2019**,		3
21	Deep Neural Network for Automatic Characterization of Lesions on 68Ga-PSMA PET/CT Images. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2019**, 2019, 951-954	0.9	3
20	Medical Computer Vision: Algorithms for Big Data. *Lecture Notes in Computer Science*, **2014**,	0.9	3
19	Deep Learning with Synthetic Diffusion MRI Data for Free-Water Elimination in Glioblastoma Cases. *Lecture Notes in Computer Science*, **2018**, 98-106	0.9	3
18	Multi-level Activation for Segmentation of Hierarchically-Nested Classes. *Lecture Notes in Computer Science*, **2019**, 345-353	0.9	3
17	Stroke Lesion Segmentation Using a Probabilistic Atlas of Cerebral Vascular Territories. *Lecture Notes in Computer Science*, **2016**, 21-32	0.9	3
16	The Minimum Cost Connected Subgraph Problem in Medical Image Analysis. *Lecture Notes in Computer Science*, **2016**, 397-405	0.9	3
15	Sparse scale-space decomposition of volume changes in deformations fields. *Lecture Notes in Computer Science*, **2013**, 16, 328-35	0.9	3
14	Simultaneous Parameter Mapping, Modality Synthesis, and Anatomical Labeling of the Brain with MR Fingerprinting. *Lecture Notes in Computer Science*, **2016**, 579-586	0.9	3

13	Modeling motor task activation from resting-state fMRI using machine learning in individual subjects. *Brain Imaging and Behavior*, **2021**, 15, 122-132	4.1	3
12	Cardiovascular Magnetic Resonance-Based Three-Dimensional Structural Modeling and Heterogeneous Tissue Channel Detection in Ventricular Arrhythmia. *Scientific Reports*, **2019**, 9, 9317	4.9	2
11	A Nonparametric Growth Model for Brain Tumor Segmentation in Longitudinal MR Sequences. *Lecture Notes in Computer Science*, **2016**, 69-79	0.9	2
10	Whole-body anatomy localization via classification and regression forests. *Medical Image Analysis*, **2013**, 17, 1282	15.4	1
9	Multi-scale Convolutional-Stack Aggregation for Robust White Matter Hyperintensities Segmentation. *Lecture Notes in Computer Science*, **2019**, 199-207	0.9	1
8	Overdiscrete echo-planar spectroscopic imaging with correlated higher-order phase correction. *Magnetic Resonance in Medicine*, **2020**, 84, 11-24	4.4	1
7	Modelling glioma progression, mass effect and intracranial pressure in patient anatomy.. *Journal of the Royal Society Interface*, **2022**, 19, 20210922	4.1	0
6	An Online Algorithm for Efficient and Temporally Consistent Subspace Clustering. *Lecture Notes in Computer Science*, **2017**, 353-368	0.9	
5	Spatial-Frequency Non-local Convolutional LSTM Network for pRCC Classification. *Lecture Notes in Computer Science*, **2019**, 22-30	0.9	
4	Spatially Adaptive Spectral Denoising for MR Spectroscopic Imaging using Frequency-Phase Non-local Means. *Lecture Notes in Computer Science*, **2016**, 596-604	0.9	
3	Overview of the 2014 Workshop on Medical Computer Vision Algorithms for Big Data (MCV 2014). *Lecture Notes in Computer Science*, **2014**, 3-10	0.9	
2	Probabilistic model for 3D interactive segmentation. *Computer Vision and Image Understanding*, **2016**, 151, 47-60	4.3	
1	Impact of Temporal Heterogeneity of Acute Hypoxia on the Radiation Response of Experimental Tumors. *Advances in Experimental Medicine and Biology*, **2018**, 1072, 189-194	3.6	