

Bjoern H Menze

List of Publications by Year in descending order

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Version: 2024-02-01

105
papers

9,675
citations

87723

38
h-index

40881

93
g-index

107
all docs

107
docs citations

107
times ranked

11968
citing authors

#	ARTICLE	IF	CITATIONS
1	The Multimodal Brain Tumor Image Segmentation Benchmark (BRATS). IEEE Transactions on Medical Imaging, 2015, 34, 1993-2024.	5.4	3,589
2	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.	1.2	804
3	ISLES 2015 - A public evaluation benchmark for ischemic stroke lesion segmentation from multispectral MRI. Medical Image Analysis, 2017, 35, 250-269.	7.0	360
4	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.	1.0	332
5	Panoptic imaging of transparent mice reveals whole-body neuronal projections and skullâ€meninges connections. Nature Neuroscience, 2019, 22, 317-327.	7.1	318
6	Spatial decision forests for MS lesion segmentation in multi-channel magnetic resonance images. NeuroImage, 2011, 57, 378-390.	2.1	260
7	The Medical Segmentation Decathlon. Nature Communications, 2022, 13, .	5.8	252
8	Machine learning analysis of whole mouse brain vasculature. Nature Methods, 2020, 17, 442-449.	9.0	203
9	Why rankings of biomedical image analysis competitions should be interpreted with care. Nature Communications, 2018, 9, 5217.	5.8	198
10	Cellular and Molecular Probing of Intact Human Organs. Cell, 2020, 180, 796-812.e19.	13.5	187
11	Robust Prediction of the MASCOT Score for an Improved Quality Assessment in Mass Spectrometric Proteomics. Journal of Proteome Research, 2008, 7, 3708-3717.	1.8	182
12	Fully convolutional network ensembles for white matter hyperintensities segmentation in MR images. NeuroImage, 2018, 183, 650-665.	2.1	155
13	Deep Learning Reveals Cancer Metastasis and Therapeutic Antibody Targeting in the Entire Body. Cell, 2019, 179, 1661-1676.e19.	13.5	142
14	A Generative Model for Brain Tumor Segmentation in Multi-Modal Images. Lecture Notes in Computer Science, 2010, 13, 151-159.	1.0	132
15	Cloud-Based Evaluation of Anatomical Structure Segmentation and Landmark Detection Algorithms: VISCERAL Anatomy Benchmarks. IEEE Transactions on Medical Imaging, 2016, 35, 2459-2475.	5.4	127
16	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.	3.3	122
17	Personalized Radiotherapy Design for Glioblastoma: Integrating Mathematical Tumor Models, Multimodal Scans, and Bayesian Inference. IEEE Transactions on Medical Imaging, 2019, 38, 1875-1884.	5.4	96
18	Automated Whole-Body Bone Lesion Detection for Multiple Myeloma on ⁶⁸ Ga-Pentixafor PET/CT Imaging Using Deep Learning Methods. Contrast Media and Molecular Imaging, 2018, 2018, 1-11.	0.4	93

#	ARTICLE	IF	CITATIONS
19	qPSMA: Semiautomatic Software for Whole-Body Tumor Burden Assessment in Prostate Cancer Using ⁶⁸ Ga-PSMA11 PET/CT. <i>Journal of Nuclear Medicine</i> , 2019, 60, 1277-1283.	2.8	82
20	Efficient probabilistic model personalization integrating uncertainty on data and parameters: Application to Eikonal-Diffusion models in cardiac electrophysiology. <i>Progress in Biophysics and Molecular Biology</i> , 2011, 107, 134-146.	1.4	78
21	Global localization of 3D anatomical structures by pre-filtered Hough Forests and discrete optimization. <i>Medical Image Analysis</i> , 2013, 17, 1304-1314.	7.0	77
22	Detection of Ancient Settlement Mounds. <i>Photogrammetric Engineering and Remote Sensing</i> , 2006, 72, 321-327.	0.3	75
23	Joint 3-D vessel segmentation and centerline extraction using oblique Hough forests with steerable filters. <i>Medical Image Analysis</i> , 2015, 19, 220-249.	7.0	74
24	A Generative Probabilistic Model and Discriminative Extensions for Brain Lesion Segmentation With Application to Tumor and Stroke. <i>IEEE Transactions on Medical Imaging</i> , 2016, 35, 933-946.	5.4	67
25	Deep neural network for automatic characterization of lesions on ⁶⁸ Ga-PSMA-11 PET/CT. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2020, 47, 603-613.	3.3	66
26	Segmentation of image ensembles via latent atlases. <i>Medical Image Analysis</i> , 2010, 14, 654-665.	7.0	64
27	Spatio-Temporal Video Segmentation With Shape Growth or Shrinkage Constraint. <i>IEEE Transactions on Image Processing</i> , 2014, 23, 3829-3840.	6.0	64
28	Detecting stable distributed patterns of brain activation using Gini contrast. <i>NeuroImage</i> , 2011, 56, 497-507.	2.1	61
29	An automatic multi-tissue human fetal brain segmentation benchmark using the Fetal Tissue Annotation Dataset. <i>Scientific Data</i> , 2021, 8, 167.	2.4	59
30	Automated Cardiac MR Scar Quantification in Hypertrophic Cardiomyopathy Using Deep Convolutional Neural Networks. <i>JACC: Cardiovascular Imaging</i> , 2018, 11, 1917-1918.	2.3	58
31	Diffusion tensor image features predict IDH genotype in newly diagnosed WHO grade II/III gliomas. <i>Scientific Reports</i> , 2017, 7, 13396.	1.6	57
32	Multivariate feature selection and hierarchical classification for infrared spectroscopy: serum-based detection of bovine spongiform encephalopathy. <i>Analytical and Bioanalytical Chemistry</i> , 2007, 387, 1801-1807.	1.9	55
33	Radiotherapy planning for glioblastoma based on a tumor growth model: improving target volume delineation. <i>Physics in Medicine and Biology</i> , 2014, 59, 747-770.	1.6	55
34	Deep learning-enabled multi-organ segmentation in whole-body mouse scans. <i>Nature Communications</i> , 2020, 11, 5626.	5.8	54
35	BraTS Toolkit: Translating BraTS Brain Tumor Segmentation Algorithms Into Clinical and Scientific Practice. <i>Frontiers in Neuroscience</i> , 2020, 14, 125.	1.4	50
36	A Generative Approach for Image-Based Modeling of Tumor Growth. <i>Lecture Notes in Computer Science</i> , 2011, 22, 735-747.	1.0	45

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37	Estimating Kinetic Parameter Maps From Dynamic Contrast-Enhanced MRI Using Spatial Prior Knowledge. IEEE Transactions on Medical Imaging, 2009, 28, 1534-1547.	5.4	44
38	Automated estimation of tumor probability in prostate magnetic resonance spectroscopic imaging: Pattern recognition vs quantification. Magnetic Resonance in Medicine, 2007, 57, 150-159.	1.9	43
39	Convolutional Neural Networks for Direct Inference of Pharmacokinetic Parameters: Application to Stroke Dynamic Contrast-Enhanced MRI. Frontiers in Neurology, 2018, 9, 1147.	1.1	43
40	Analysing spatio-temporal patterns of the global NO ₂ -distribution retrieved from GOME satellite observations using a generalized additive model. Atmospheric Chemistry and Physics, 2009, 9, 6459-6477.	1.9	38
41	Deep-Learning Generated Synthetic Double Inversion Recovery Images Improve Multiple Sclerosis Lesion Detection. Investigative Radiology, 2020, 55, 318-323.	3.5	38
42	Btrfly Net: Vertebrae Labelling with Energy-Based Adversarial Learning of Local Spine Prior. Lecture Notes in Computer Science, 2018, , 649-657.	1.0	37
43	DiamondGAN: Unified Multi-modal Generative Adversarial Networks for MRI Sequences Synthesis. Lecture Notes in Computer Science, 2019, , 795-803.	1.0	36
44	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, 1613-1621.	1.2	34
45	Exploring New Multimodal Quantitative Imaging Indices for the Assessment of Osseous Tumor Burden in Prostate Cancer Using ⁶⁸ Ga-PSMA PET/CT. Journal of Nuclear Medicine, 2017, 58, 1632-1637.	2.8	33
46	Three-dimensional holographic visualization of high-resolution myocardial scar on HoloLens. PLoS ONE, 2018, 13, e0205188.	1.1	33
47	Mimicking the human expert: Pattern recognition for an automated assessment of data quality in MR spectroscopic images. Magnetic Resonance in Medicine, 2008, 59, 1457-1466.	1.9	30
48	Radiotherapy planning for glioblastoma based on a tumor growth model: implications for spatial dose redistribution. Physics in Medicine and Biology, 2014, 59, 771-789.	1.6	30
49	Deep complex convolutional network for fast reconstruction of 3D late gadolinium enhancement cardiac MRI. NMR in Biomedicine, 2020, 33, e4312.	1.6	30
50	Deep learning derived tumor infiltration maps for personalized target definition in Glioblastoma radiotherapy. Radiotherapy and Oncology, 2019, 138, 166-172.	0.3	28
51	Gold Nanoparticle Mediated Multi-Modal CT Imaging of Hsp70 Membrane-Positive Tumors. Cancers, 2020, 12, 1331.	1.7	24
52	Wall shear stress estimation in the aorta: Impact of wall motion, spatiotemporal resolution, and phase noise. Journal of Magnetic Resonance Imaging, 2018, 48, 718-728.	1.9	23
53	Predicting Glioblastoma Recurrence from Preoperative MR Scans Using Fractional-Anisotropy Maps with Free-Water Suppression. Cancers, 2020, 12, 728.	1.7	23
54	A computed tomography vertebral segmentation dataset with anatomical variations and multi-vendor scanner data. Scientific Data, 2021, 8, 284.	2.4	22

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55	Brain extraction from normal and pathological images: A joint PCA/Image-Reconstruction approach. <i>NeuroImage</i> , 2018, 176, 431-445.	2.1	20
56	Reconstructing cerebrovascular networks under local physiological constraints by integer programming. <i>Medical Image Analysis</i> , 2015, 25, 86-94.	7.0	19
57	Differential Diagnosis for Pancreatic Cysts in CT Scans Using Densely-Connected Convolutional Networks. , 2019, 2019, 2095-2098.		19
58	Local Conduction Velocity in the Presence of Late Gadolinium Enhancement and Myocardial Wall Thinning. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2019, 12, e007175.	2.1	17
59	Direct Estimation of Pharmacokinetic Parameters from DCE-MRI Using Deep CNN with Forward Physical Model Loss. <i>Lecture Notes in Computer Science</i> , 2018, , 39-47.	1.0	16
60	DeepASL: Kinetic Model Incorporated Loss for Denoising Arterial Spin Labeled MRI via Deep Residual Learning. <i>Lecture Notes in Computer Science</i> , 2018, , 30-38.	1.0	16
61	Designing contrasts for rapid, simultaneous parameter quantification and flow visualization with quantitative transient-state imaging. <i>Scientific Reports</i> , 2019, 9, 8468.	1.6	15
62	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. <i>Oncotarget</i> , 2018, 9, 25254-25264.	0.8	15
63	Using spatial prior knowledge in the spectral fitting of MRS images. <i>NMR in Biomedicine</i> , 2012, 25, 1-13.	1.6	14
64	Quantification of Metabolites in Magnetic Resonance Spectroscopic Imaging Using Machine Learning. <i>Lecture Notes in Computer Science</i> , 2017, , 462-470.	1.0	14
65	A diffusion model-free framework with echo time dependence for free-water elimination and brain tissue microstructure characterization. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 2155-2172.	1.9	14
66	Segmentation of Skeleton and Organs in Whole-Body CT Images via Iterative Trilateration. <i>IEEE Transactions on Medical Imaging</i> , 2017, 36, 2276-2286.	5.4	12
67	SurvivalNet: Predicting patient survival from diffusion weighted magnetic resonance images using cascaded fully convolutional and 3D Convolutional Neural Networks. , 2017, , .		11
68	Neural Parameters Estimation for Brain Tumor Growth Modeling. <i>Lecture Notes in Computer Science</i> , 2019, , 787-795.	1.0	11
69	Deep-FExt: Deep Feature Extraction for Vessel Segmentation and Centerline Prediction. <i>Lecture Notes in Computer Science</i> , 2017, , 344-352.	1.0	11
70	c-Rel gain in B cells drives germinal center reactions and autoantibody production. <i>Journal of Clinical Investigation</i> , 2020, 130, 3270-3286.	3.9	11
71	Multitemporal Fusion for the Detection of Static Spatial Patterns in Multispectral Satellite Images—With Application to Archaeological Survey. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2014, 7, 3513-3524.	2.3	10
72	How to Exploit Weaknesses in Biomedical Challenge Design and Organization. <i>Lecture Notes in Computer Science</i> , 2018, , 388-395.	1.0	10

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73	Diabetes60 " Inferring Bread Units From Food Images Using Fully Convolutional Neural Networks. , 2017, , .		9
74	Modeling motor task activation from resting-state fMRI using machine learning in individual subjects. Brain Imaging and Behavior, 2021, 15, 122-132.	1.1	9
75	Face Restoration via Plug-and-Play 3D Facial Priors. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 8910-8926.	9.7	9
76	Cell Lineage Tracing in Lens-Free Microscopy Videos. Lecture Notes in Computer Science, 2017, , 3-11.	1.0	8
77	A Radiomics Approach to Traumatic Brain Injury Prediction in CT Scans. , 2019, , .		7
78	Deep Neural Network for Automatic Characterization of Lesions on 68Ga-PSMA PET/CT Images. , 2019, 2019, 951-954.		7
79	Automated processing of webcam images for phenological classification. PLoS ONE, 2017, 12, e0171918.	1.1	7
80	Human-Drone-Interaction: A Case Study to Investigate the Relation Between Autonomy and User Experience. Lecture Notes in Computer Science, 2016, , 238-253.	1.0	6
81	Efficient Algorithms for Moral Lineage Tracing. , 2017, , .		6
82	Cardiovascular Magnetic Resonance-Based Three-Dimensional Structural Modeling and Heterogeneous Tissue Channel Detection in Ventricular Arrhythmia. Scientific Reports, 2019, 9, 9317.	1.6	6
83	Automated vs. Manual Pattern Recognition of 3D 1H MRSI Data of Patients with Prostate Cancer. Academic Radiology, 2012, 19, 675-684.	1.3	5
84	Extracting Vascular Networks under Physiological Constraints via Integer Programming. Lecture Notes in Computer Science, 2014, 17, 505-512.	1.0	5
85	Deep Learning with Synthetic Diffusion MRI Data for Free-Water Elimination in Glioblastoma Cases. Lecture Notes in Computer Science, 2018, , 98-106.	1.0	5
86	Simultaneous Parameter Mapping, Modality Synthesis, and Anatomical Labeling of the Brain with MR Fingerprinting. Lecture Notes in Computer Science, 2016, , 579-586.	1.0	5
87	Modelling glioma progression, mass effect and intracranial pressure in patient anatomy. Journal of the Royal Society Interface, 2022, 19, 20210922.	1.5	5
88	Multi-level Activation for Segmentation of Hierarchically-Nested Classes. Lecture Notes in Computer Science, 2019, , 345-353.	1.0	4
89	Enforcing Monotonous Shape Growth or Shrinkage in Video Segmentation. , 2013, , .		4
90	Medical Computer Vision: Algorithms for Big Data. Lecture Notes in Computer Science, 2014, , .	1.0	3

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91	Stroke Lesion Segmentation Using a Probabilistic Atlas of Cerebral Vascular Territories. Lecture Notes in Computer Science, 2016, , 21-32.	1.0	3
92	The Minimum Cost Connected Subgraph Problem in Medical Image Analysis. Lecture Notes in Computer Science, 2016, , 397-405.	1.0	3
93	Sparse Scale-Space Decomposition of Volume Changes in Deformations Fields. Lecture Notes in Computer Science, 2013, 16, 328-335.	1.0	3
94	A Nonparametric Growth Model for Brain Tumor Segmentation in Longitudinal MR Sequences. Lecture Notes in Computer Science, 2016, , 69-79.	1.0	2
95	Multimodal medical image analysis: From visualization to disease modeling. Zeitschrift Fur Medizinische Physik, 2011, 21, 1.	0.6	1
96	Whole-body anatomy localization via classification and regression forests. Medical Image Analysis, 2013, 17, 1282.	7.0	1
97	Automatic Multi-Atlas Segmentation for Abdominal Images Using Template Construction and Robust Principal Component Analysis. , 2018, , .		1
98	Overdiscrete echo-planar spectroscopic imaging with correlated higher-order phase correction. Magnetic Resonance in Medicine, 2020, 84, 11-24.	1.9	1
99	Multi-scale Convolutional-Stack Aggregation for Robust White Matter Hyperintensities Segmentation. Lecture Notes in Computer Science, 2019, , 199-207.	1.0	1
100	Probabilistic model for 3D interactive segmentation. Computer Vision and Image Understanding, 2016, 151, 47-60.	3.0	0
101	An Online Algorithm for Efficient and Temporally Consistent Subspace Clustering. Lecture Notes in Computer Science, 2017, , 353-368.	1.0	0
102	Impact of Temporal Heterogeneity of Acute Hypoxia on the Radiation Response of Experimental Tumors. Advances in Experimental Medicine and Biology, 2018, 1072, 189-194.	0.8	0
103	Overview of the 2014 Workshop on Medical Computer Vision Algorithms for Big Data (MCV 2014). Lecture Notes in Computer Science, 2014, , 3-10.	1.0	0
104	Spatially Adaptive Spectral Denoising for MR Spectroscopic Imaging using Frequency-Phase Non-local Means. Lecture Notes in Computer Science, 2016, , 596-604.	1.0	0
105	Spatial-Frequency Non-local Convolutional LSTM Network for pRCC Classification. Lecture Notes in Computer Science, 2019, , 22-30.	1.0	0