

Ben Glocker

List of Publications by Year in descending order

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Version: 2024-02-01

141
papers

17,546
citations

53660

45
h-index

18075

120
g-index

145
all docs

145
docs citations

145
times ranked

16888
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	Efficient multi-scale 3D CNN with fully connected CRF for accurate brain lesion segmentation. Medical Image Analysis, 2017, 36, 61-78.	7.0	2,382
3	Traumatic brain injury: integrated approaches to improve prevention, clinical care, and research. Lancet Neurology, The, 2017, 16, 987-1048.	4.9	1,571
4	Attention gated networks: Learning to leverage salient regions in medical images. Medical Image Analysis, 2019, 53, 197-207.	7.0	1,011
5	Scene Coordinate Regression Forests for Camera Relocalization in RGB-D Images. , 2013, , .		496
6	Anatomically Constrained Neural Networks (ACNNs): Application to Cardiac Image Enhancement and Segmentation. IEEE Transactions on Medical Imaging, 2018, 37, 384-395.	5.4	493
7	ElasticFusion: Real-time dense SLAM and light source estimation. International Journal of Robotics Research, 2016, 35, 1697-1716.	5.8	469
8	Automated cardiovascular magnetic resonance image analysis with fully convolutional networks. Journal of Cardiovascular Magnetic Resonance, 2018, 20, 65.	1.6	468
9	Disease prediction using graph convolutional networks: Application to Autism Spectrum Disorder and Alzheimer's disease. Medical Image Analysis, 2018, 48, 117-130.	7.0	391
10	Evaluation of Registration Methods on Thoracic CT: The EMPIRE10 Challenge. IEEE Transactions on Medical Imaging, 2011, 30, 1901-1920.	5.4	363
11	ISLES 2015 - A public evaluation benchmark for ischemic stroke lesion segmentation from multispectral MRI. Medical Image Analysis, 2017, 35, 250-269.	7.0	360
12	Dense image registration through MRFs and efficient linear programming. Medical Image Analysis, 2008, 12, 731-741.	7.0	344
13	Case-mix, care pathways, and outcomes in patients with traumatic brain injury in CENTER-TBI: a European prospective, multicentre, longitudinal, cohort study. Lancet Neurology, The, 2019, 18, 923-934.	4.9	304
14	Unsupervised Domain Adaptation in Brain Lesion Segmentation with Adversarial Networks. Lecture Notes in Computer Science, 2017, , 597-609.	1.0	241
15	Metric learning with spectral graph convolutions on brain connectivity networks. NeuroImage, 2018, 169, 431-442.	2.1	237
16	Multimodal surface matching with higher-order smoothness constraints. NeuroImage, 2018, 167, 453-465.	2.1	219
17	DeepMedic for Brain Tumor Segmentation. Lecture Notes in Computer Science, 2016, , 138-149.	1.0	170
18	Deformable Medical Image Registration: Setting the State of the Art with Discrete Methods. Annual Review of Biomedical Engineering, 2011, 13, 219-244.	5.7	163

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19	Causality matters in medical imaging. Nature Communications, 2020, 11, 3673.	5.8	161
20	Decision Forests for Tissue-Specific Segmentation of High-Grade Gliomas in Multi-channel MR. Lecture Notes in Computer Science, 2012, 15, 369-376.	1.0	160
21	Federated deep learning for detecting COVID-19 lung abnormalities in CT: a privacy-preserving multinational validation study. Npj Digital Medicine, 2021, 4, 60.	5.7	134
22	PnP-AdaNet: Plug-and-Play Adversarial Domain Adaptation Network at Unpaired Cross-Modality Cardiac Segmentation. IEEE Access, 2019, 7, 99065-99076.	2.6	124
23	Evaluating reinforcement learning agents for anatomical landmark detection. Medical Image Analysis, 2019, 53, 156-164.	7.0	121
24	Machine learning algorithms performed no better than regression models for prognostication in traumatic brain injury. Journal of Clinical Epidemiology, 2020, 122, 95-107.	2.4	117
25	Unpaired Multi-Modal Segmentation via Knowledge Distillation. IEEE Transactions on Medical Imaging, 2020, 39, 2415-2425.	5.4	112
26	VerSe: A Vertebrae labelling and segmentation benchmark for multi-detector CT images. Medical Image Analysis, 2021, 73, 102166.	7.0	112
27	Vertebrae Localization in Pathological Spine CT via Dense Classification from Sparse Annotations. Lecture Notes in Computer Science, 2013, 16, 262-270.	1.0	110
28	Real-time RGB-D camera relocalization. , 2013, , .		106
29	Automatic Localization and Identification of Vertebrae in Arbitrary Field-of-View CT Scans. Lecture Notes in Computer Science, 2012, 15, 590-598.	1.0	104
30	Reverse Classification Accuracy: Predicting Segmentation Performance in the Absence of Ground Truth. IEEE Transactions on Medical Imaging, 2017, 36, 1597-1606.	5.4	85
31	The medical algorithmic audit. The Lancet Digital Health, 2022, 4, e384-e397.	5.9	85
32	Multiclass semantic segmentation and quantification of traumatic brain injury lesions on head CT using deep learning: an algorithm development and multicentre validation study. The Lancet Digital Health, 2020, 2, e314-e322.	5.9	83
33	Is Synthesizing MRI Contrast Useful for Inter-modality Analysis?. Lecture Notes in Computer Science, 2013, 16, 631-638.	1.0	81
34	TeTrIS: Template Transformer Networks for Image Segmentation With Shape Priors. IEEE Transactions on Medical Imaging, 2019, 38, 2596-2606.	5.4	78
35	Automated quality control in image segmentation: application to the UK Biobank cardiovascular magnetic resonance imaging study. Journal of Cardiovascular Magnetic Resonance, 2019, 21, 18.	1.6	78
36	A quality assessment tool for artificial intelligence-centered diagnostic test accuracy studies: QUADAS-AI. Nature Medicine, 2021, 27, 1663-1665.	15.2	76

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37	Encoding atlases by randomized classification forests for efficient multi-atlas label propagation. <i>Medical Image Analysis</i> , 2014, 18, 1262-1273.	7.0	74
38	Analyzing Overfitting Under Class Imbalance in Neural Networks for Image Segmentation. <i>IEEE Transactions on Medical Imaging</i> , 2021, 40, 1065-1077.	5.4	72
39	Multi-output Learning for Camera Relocalization. , 2014, , .		65
40	Fast Multiple Organ Detection and Localization in Whole-Body MR Dixon Sequences. <i>Lecture Notes in Computer Science</i> , 2011, 14, 239-247.	1.0	64
41	Improving RetinaNet for CT Lesion Detection with Dense Masks from Weak RECIST Labels. <i>Lecture Notes in Computer Science</i> , 2019, , 402-410.	1.0	62
42	Multi-modal Learning from Unpaired Images: Application to Multi-organ Segmentation in CT and MRI. , 2018, , .		61
43	3-D Reconstruction in Canonical Co-Ordinate Space From Arbitrarily Oriented 2-D Images. <i>IEEE Transactions on Medical Imaging</i> , 2018, 37, 1737-1750.	5.4	60
44	Neighbourhood approximation using randomized forests. <i>Medical Image Analysis</i> , 2013, 17, 790-804.	7.0	59
45	Evaluation and comparison of 3D intervertebral disc localization and segmentation methods for 3D T2 MR data: A grand challenge. <i>Medical Image Analysis</i> , 2017, 35, 327-344.	7.0	59
46	Modality Propagation: Coherent Synthesis of Subject-Specific Scans with Data-Driven Regularization. <i>Lecture Notes in Computer Science</i> , 2013, 16, 606-613.	1.0	57
47	Stratified Decision Forests for Accurate Anatomical Landmark Localization in Cardiac Images. <i>IEEE Transactions on Medical Imaging</i> , 2017, 36, 332-342.	5.4	56
48	Interventional Tool Tracking Using Discrete Optimization. <i>IEEE Transactions on Medical Imaging</i> , 2013, 32, 544-555.	5.4	49
49	Abnormal brain white matter microstructure is associated with both pre-hypertension and hypertension. <i>PLoS ONE</i> , 2017, 12, e0187600.	1.1	47
50	Joint Classification-Regression Forests for Spatially Structured Multi-object Segmentation. <i>Lecture Notes in Computer Science</i> , 2012, , 870-881.	1.0	46
51	Optical flow estimation with uncertainties through dynamic MRFs. , 2008, , .		45
52	Learning-Based Quality Control for Cardiac MR Images. <i>IEEE Transactions on Medical Imaging</i> , 2019, 38, 1127-1138.	5.4	42
53	Evaluation of Deep Learning to Augment Image-Guided Radiotherapy for Head and Neck and Prostate Cancers. <i>JAMA Network Open</i> , 2020, 3, e2027426.	2.8	42
54	Atlas Encoding by Randomized Forests for Efficient Label Propagation. <i>Lecture Notes in Computer Science</i> , 2013, 16, 66-73.	1.0	41

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55	Ensemble of Convolutional Neural Networks Improves Automated Segmentation of Acute Ischemic Lesions Using Multiparametric Diffusion-Weighted MRI. American Journal of Neuroradiology, 2019, 40, 938-945.	1.2	41
56	Mediastinal atlas creation from 3-D chest computed tomography images: Application to automated detection and station mapping of lymph nodes. Medical Image Analysis, 2012, 16, 63-74.	7.0	40
57	Overfitting of Neural Nets Under Class Imbalance: Analysis and Improvements for Segmentation. Lecture Notes in Computer Science, 2019, , 402-410.	1.0	39
58	Linear intensity-based image registration by Markov random fields and discrete optimization. Medical Image Analysis, 2010, 14, 550-562.	7.0	38
59	Post-DAE: Anatomically Plausible Segmentation via Post-Processing With Denoising Autoencoders. IEEE Transactions on Medical Imaging, 2020, 39, 3813-3820.	5.4	38
60	Inter and Intra-modal Deformable Registration: Continuous Deformations Meet Efficient Optimal Linear Programming. Lecture Notes in Computer Science, 2007, 20, 408-420.	1.0	38
61	Post-acute blood biomarkers and disease progression in traumatic brain injury. Brain, 2022, 145, 2064-2076.	3.7	37
62	WESD-Weighted Spectral Distance for Measuring Shape Dissimilarity. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 2284-2297.	9.7	36
63	Fast Fully Automatic Segmentation of the Human Placenta from Motion Corrupted MRI. Lecture Notes in Computer Science, 2016, , 589-597.	1.0	34
64	Local Brain-Age: A U-Net Model. Frontiers in Aging Neuroscience, 2021, 13, 761954.	1.7	33
65	Fully automatic, multiorgan segmentation in normal whole body magnetic resonance imaging (<sc>MRI</sc>), using classification forests (<sc>CF</sc>s), convolutional neural networks (<sc>CNN</sc>s), and a multi-atlas (<sc>MA</sc>) approach. Medical Physics, 2017, 44, 5210-5220.	1.6	31
66	Deep Learning-Based Automated Abdominal Organ Segmentation in the UK Biobank and German National Cohort Magnetic Resonance Imaging Studies. Investigative Radiology, 2021, 56, 401-408.	3.5	30
67	Robust guidewire tracking under large deformations combining segment-like features (SEGlets). Medical Image Analysis, 2017, 38, 150-164.	7.0	29
68	Geodesic Patch-Based Segmentation. Lecture Notes in Computer Science, 2014, 17, 666-673.	1.0	29
69	Quantitative error prediction of medical image registration using regression forests. Medical Image Analysis, 2019, 56, 110-121.	7.0	28
70	Automatic View Planning with Multi-scale Deep Reinforcement Learning Agents. Lecture Notes in Computer Science, 2018, , 277-285.	1.0	27
71	Adversarial interference and its mitigations in privacy-preserving collaborative machine learning. Nature Machine Intelligence, 2021, 3, 749-758.	8.3	26
72	Regional brain morphometry in patients with traumatic brain injury based on acute- and chronic-phase magnetic resonance imaging. PLoS ONE, 2017, 12, e0188152.	1.1	25

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73	AutoImplant 2020-First MICCAI Challenge on Automatic Cranial Implant Design. IEEE Transactions on Medical Imaging, 2021, 40, 2329-2342.	5.4	24
74	Relationship of admission blood proteomic biomarkers levels to lesion type and lesion burden in traumatic brain injury: A CENTER-TBI study. EBioMedicine, 2022, 75, 103777.	2.7	24
75	Nonlinear biomarker interactions in conversion from mild cognitive impairment to Alzheimer's disease. Human Brain Mapping, 2020, 41, 4406-4418.	1.9	23
76	Quantifying Progression of Multiple Sclerosis via Classification of Depth Videos. Lecture Notes in Computer Science, 2014, 17, 429-437.	1.0	23
77	Learning clinically useful information from images: Past, present and future. Medical Image Analysis, 2016, 33, 13-18.	7.0	22
78	Impact of Antithrombotic Agents on Radiological Lesion Progression in Acute Traumatic Brain Injury: A CENTER-TBI Propensity-Matched Cohort Analysis. Journal of Neurotrauma, 2020, 37, 2069-2080.	1.7	22
79	Large-scale Quality Control of Cardiac Imaging in Population Studies: Application to UK Biobank. Scientific Reports, 2020, 10, 2408.	1.6	22
80	Primal/Dual Linear Programming and Statistical Atlases for Cartilage Segmentation. , 2007, 10, 536-543.		22
81	Active label cleaning for improved dataset quality under resource constraints. Nature Communications, 2022, 13, 1161.	5.8	22
82	Supervoxel classification forests for estimating pairwise image correspondences. Pattern Recognition, 2017, 63, 561-569.	5.1	21
83	On the Adaptability of Unsupervised CNN-Based Deformable Image Registration to Unseen Image Domains. Lecture Notes in Computer Science, 2018, , 294-302.	1.0	21
84	Simultaneous Geometric - Iconic Registration. Lecture Notes in Computer Science, 2010, 13, 676-683.	1.0	21
85	Potential sources of dataset bias complicate investigation of underdiagnosis by machine learning algorithms. Nature Medicine, 2022, 28, 1157-1158.	15.2	21
86	Dense Registration with Deformation Priors. Lecture Notes in Computer Science, 2009, 21, 540-551.	1.0	19
87	Diffuse Intracranial Injury Patterns Are Associated with Impaired Cerebrovascular Reactivity in Adult Traumatic Brain Injury: A CENTER-TBI Validation Study. Journal of Neurotrauma, 2020, 37, 1597-1608.	1.7	17
88	Graphical Models and Deformable Diffeomorphic Population Registration Using Global and Local Metrics. Lecture Notes in Computer Science, 2009, 12, 672-679.	1.0	17
89	Small Organ Segmentation in Whole-Body MRI Using a Two-Stage FCN and Weighting Schemes. Lecture Notes in Computer Science, 2018, , 346-354.	1.0	16
90	Relationship between Measures of Cerebrovascular Reactivity and Intracranial Lesion Progression in Acute Traumatic Brain Injury Patients: A CENTER-TBI Study. Journal of Neurotrauma, 2020, 37, 1556-1565.	1.7	16

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91	Real-time respiratory motion tracking: roadmap correction for hepatic artery catheterizations. , 2008, , ,		15
92	Motion Segmentation of Truncated Signed Distance Function Based Volumetric Surfaces. , 2015, , .		15
93	(Hyper)-graphical models in biomedical image analysis. Medical Image Analysis, 2016, 33, 102-106.	7.0	14
94	Probabilistic Region Matching in Narrow-Band Endoscopy for Targeted Optical Biopsy. Lecture Notes in Computer Science, 2009, 12, 499-506.	1.0	14
95	Neighbourhood Approximation Forests. Lecture Notes in Computer Science, 2012, 15, 75-82.	1.0	13
96	Systemic Markers of Injury and Injury Response Are Not Associated with Impaired Cerebrovascular Reactivity in Adult Traumatic Brain Injury: A Collaborative European Neurotrauma Effectiveness Research in Traumatic Brain Injury (CENTER-TBI) Study. Journal of Neurotrauma, 2021, 38, 870-878.	1.7	13
97	Multi-channel MRI segmentation of eye structures and tumors using patient-specific features. PLoS ONE, 2017, 12, e0173900.	1.1	13
98	Robust Registration of Longitudinal Spine CT. Lecture Notes in Computer Science, 2014, 17, 251-258.	1.0	12
99	Cranial Implant Design via Virtual Craniectomy with Shape Priors. Lecture Notes in Computer Science, 2020, , 37-46.	1.0	12
100	Atlas-ISTN: Joint segmentation, registration and atlas construction with image-and-spatial transformer networks. Medical Image Analysis, 2022, 78, 102383.	7.0	12
101	Adaptive parametrization of multivariate B-splines for image registration. , 2008, , .		11
102	Automated vertebrae localization and identification by decision forests and image-based refinement on real-world CT data. Radiologia Medica, 2020, 125, 48-56.	4.7	11
103	Self-supervised Skull Reconstruction in Brain CT Images with Decompressive Craniectomy. Lecture Notes in Computer Science, 2020, , 390-399.	1.0	11
104	Approximated Curvature Penalty in Non-rigid Registration Using Pairwise MRFs. Lecture Notes in Computer Science, 2009, , 1101-1109.	1.0	11
105	Deformable Mosaicing for Whole-Body MRI. Lecture Notes in Computer Science, 2008, 11, 113-121.	1.0	11
106	Perceived Realism of High-Resolution Generative Adversarial Network-derived Synthetic Mammograms. Radiology: Artificial Intelligence, 2021, 3, e190181.	3.0	10
107	Uncertainty-Driven Forest Predictors for Vertebra Localization and Segmentation. Lecture Notes in Computer Science, 2015, , 653-660.	1.0	10
108	Automatic Brain Localization in Fetal MRI Using Superpixel Graphs. Lecture Notes in Computer Science, 2015, , 13-22.	1.0	10

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109	Linear image registration through MRF optimization. , 2009, , .		9
110	Learning and combining image neighborhoods using random forests for neonatal brain disease classification. Medical Image Analysis, 2017, 42, 189-199.	7.0	9
111	Deep Generative Model-Based Quality Control for Cardiac MRI Segmentation. Lecture Notes in Computer Science, 2020, , 88-97.	1.0	9
112	Image-Level Harmonization of Multi-site Data Using Image-and-Spatial Transformer Networks. Lecture Notes in Computer Science, 2020, , 710-719.	1.0	9
113	Markov random field optimization for intensity-based 2D-3D registration. Proceedings of SPIE, 2010, , .	0.8	8
114	Discriminative Segmentation-Based Evaluation Through Shape Dissimilarity. IEEE Transactions on Medical Imaging, 2012, 31, 2278-2289.	5.4	8
115	Random forests in medical image computing. , 2020, , 457-480.		8
116	A flexible graphical model for multi-modal parcellation of the cortex. NeuroImage, 2017, 162, 226-248.	2.1	7
117	Deep neural network to locate and segment brain tumors outperformed the expert technicians who created the training data. Journal of Medical Imaging, 2020, 7, 055501.	0.8	7
118	Supervoxel Classification Forests for Estimating Pairwise Image Correspondences. Lecture Notes in Computer Science, 2015, , 94-101.	1.0	6
119	Special Issue on Machine Vision. International Journal of Computer Vision, 2019, 127, 1611-1613.	10.9	5
120	Volume Change in Frontal Cholinergic Structures After Traumatic Brain Injury and Cognitive Outcome. Frontiers in Neurology, 2020, 11, 832.	1.1	5
121	Computing minimal deformations: application to construction of statistical shape models. , 2008, , .		4
122	Reconstructing subject-specific effect maps. NeuroImage, 2018, 181, 521-538.	2.1	4
123	Multiple Instance Learning with Auxiliary Task Weighting for Multiple Myeloma Classification. Lecture Notes in Computer Science, 2021, , 786-796.	1.0	4
124	Normative ascent with local gaussians for unsupervised lesion detection. Medical Image Analysis, 2021, 74, 102208.	7.0	4
125	Joint Supervoxel Classification Forest for Weakly-Supervised Organ Segmentation. Lecture Notes in Computer Science, 2017, , 79-87.	1.0	4
126	Towards a computer-aided diagnosis system for colon motility dysfunctions. , 2007, , .		3

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127	Unsupervised Lesion Detection with Locally Gaussian Approximation. Lecture Notes in Computer Science, 2019, , 355-363.	1.0	3
128	Learning-Based Heart Coverage Estimation for Short-Axis Cine Cardiac MR Images. Lecture Notes in Computer Science, 2017, , 73-82.	1.0	3
129	Discrete Optimisation for Group-Wise Cortical Surface Atlasing. , 2016, , .		2
130	Learning from Partially Overlapping Labels: Image Segmentation Under Annotation Shift. Lecture Notes in Computer Science, 2021, , 123-132.	1.0	2
131	Automatic Localization of the Lumbar Vertebral Landmarks in CT Images with Context Features. Lecture Notes in Computer Science, 2018, , 59-71.	1.0	2
132	Needle tracking through higher-order MRF optimization. , 2010, , .		1
133	[DEMO] Dense planar SLAM. , 2014, , .		1
134	Learning to detect and track cells for quantitative analysis of time-lapse microscopic image sequences. , 2015, , .		1
135	Biomedical image analysis using markov random fields & efficient linear programing. , 2009, 2009, 6628-31.		0
136	Sphere extraction in MR images with application to whole-body MRI. Proceedings of SPIE, 2009, , .	0.8	0
137	Note Special Issue on Discrete Graphical Models in Biomedical Image Analysis. Medical Image Analysis, 2016, 27, 1-2.	7.0	0
138	Transductive Image Segmentation: Self-training and Effect of Uncertainty Estimation. Lecture Notes in Computer Science, 2021, , 79-89.	1.0	0
139	Learning and Combining Image Similarities for Neonatal Brain Population Studies. Lecture Notes in Computer Science, 2015, , 110-117.	1.0	0
140	Controlling Meshes via Curvature: Spin Transformations for Pose-Invariant Shape Processing. Lecture Notes in Computer Science, 2019, , 221-234.	1.0	0
141	Image Registration via Stochastic Gradient Markov Chain Monte Carlo. Lecture Notes in Computer Science, 2020, , 3-12.	1.0	0