Ben Glocker

List of Publications by Year
in descending order

141 papers	17,546 citations	53794 45 h-index	18130 120 g-index
145 all docs	145 docs citations	145 times ranked	16888 citing authors

#	ARTICLE	IF	CITATIONS
1	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.	6.1	24
2	Atlas-ISTN: Joint segmentation, registration and atlas construction with image-and-spatial transformer networks. Medical Image Analysis, 2022, 78, 102383.	11.6	12
3	Active label cleaning for improved dataset quality under resource constraints. Nature Communications, 2022, 13, 1161.	12.8	22
4	Post-acute blood biomarkers and disease progression in traumatic brain injury. Brain, 2022, 145, 2064-2076.	7.6	37
5	The medical algorithmic audit. The Lancet Digital Health, 2022, 4, e384-e397.	12.3	85
6	Potential sources of dataset bias complicate investigation of underdiagnosis by machine learning algorithms. Nature Medicine, 2022, 28, 1157-1158.	30.7	21
7	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.	3.4	13
8	Multiple Instance Learning with Auxiliary Task Weighting for Multiple Myeloma Classification. Lecture Notes in Computer Science, 2021, , 786-796.	1.3	4
9	Learning from Partially Overlapping Labels: Image Segmentation Under Annotation Shift. Lecture Notes in Computer Science, 2021, , 123-132.	1.3	2
10	Perceived Realism of High-Resolution Generative Adversarial Network–derived Synthetic Mammograms. Radiology: Artificial Intelligence, 2021, 3, e190181.	5.8	10
11	Federated deep learning for detecting COVID-19 lung abnormalities in CT: a privacy-preserving multinational validation study. Npj Digital Medicine, 2021, 4, 60.	10.9	134
12	Analyzing Overfitting Under Class Imbalance in Neural Networks for Image Segmentation. IEEE Transactions on Medical Imaging, 2021, 40, 1065-1077.	8.9	72
13	AutoImplant 2020-First MICCAI Challenge on Automatic Cranial Implant Design. IEEE Transactions on Medical Imaging, 2021, 40, 2329-2342.	8.9	24
14	Adversarial interference and its mitigations in privacy-preserving collaborative machine learning. Nature Machine Intelligence, 2021, 3, 749-758.	16.0	26
15	VerSe: A Vertebrae labelling and segmentation benchmark for multi-detector CT images. Medical Image Analysis, 2021, 73, 102166.	11.6	112
16	Normative ascent with local gaussians for unsupervised lesion detection. Medical Image Analysis, 2021, 74, 102208.	11.6	4
17	Transductive Image Segmentation: Self-training and Effect of Uncertainty Estimation. Lecture Notes in Computer Science, 2021, , 79-89.	1.3	0
18	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.	6.2	30

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19	A quality assessment tool for artificial intelligence-centered diagnostic test accuracy studies: QUADAS-AI. Nature Medicine, 2021, 27, 1663-1665.	30.7	76
20	Local Brain-Age: A U-Net Model. Frontiers in Aging Neuroscience, 2021, 13, 761954.	3.4	33
21	Automated vertebrae localization and identification by decision forests and image-based refinement on real-world CT data. Radiologia Medica, 2020, 125, 48-56.	7.7	11
22	Random forests in medical image computing. , 2020, , 457-480.		8
23	Causality matters in medical imaging. Nature Communications, 2020, 11, 3673.	12.8	161
24	Volume Change in Frontal Cholinergic Structures After Traumatic Brain Injury and Cognitive Outcome. Frontiers in Neurology, 2020, 11, 832.	2.4	5
25	Evaluation of Deep Learning to Augment Image-Guided Radiotherapy for Head and Neck and Prostate Cancers. JAMA Network Open, 2020, 3, e2027426.	5.9	42
26	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.	12.3	83
27	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.	3.4	22
28	Machine learning algorithms performed no better than regression models for prognostication in traumatic brain injury. Journal of Clinical Epidemiology, 2020, 122, 95-107.	5.0	117
29	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.	3.4	17
30	Nonlinear biomarker interactions in conversion from mild cognitive impairment to Alzheimer's disease. Human Brain Mapping, 2020, 41, 4406-4418.	3.6	23
31	Post-DAE: Anatomically Plausible Segmentation via Post-Processing With Denoising Autoencoders. IEEE Transactions on Medical Imaging, 2020, 39, 3813-3820.	8.9	38
32	Unpaired Multi-Modal Segmentation via Knowledge Distillation. IEEE Transactions on Medical Imaging, 2020, 39, 2415-2425.	8.9	112
33	Large-scale Quality Control of Cardiac Imaging in Population Studies: Application to UK Biobank. Scientific Reports, 2020, 10, 2408.	3.3	22
34	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.	3.4	16
35	Self-supervised Skull Reconstruction in Brain CT Images with Decompressive Craniectomy. Lecture Notes in Computer Science, 2020, , 390-399.	1.3	11
36	Deep Generative Model-Based Quality Control for Cardiac MRI Segmentation. Lecture Notes in Computer Science, 2020, , 88-97.	1.3	9

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37	Image-Level Harmonization of Multi-site Data Using Image-and-Spatial Transformer Networks. Lecture Notes in Computer Science, 2020, , 710-719.	1.3	9
38	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.	1.5	7
39	Cranial Implant Design via Virtual Craniectomy with Shape Priors. Lecture Notes in Computer Science, 2020, , 37-46.	1.3	12
40	Image Registration via Stochastic Gradient Markov Chain Monte Carlo. Lecture Notes in Computer Science, 2020, , 3-12.	1.3	0
41	PnP-AdaNet: Plug-and-Play Adversarial Domain Adaptation Network at Unpaired Cross-Modality Cardiac Segmentation. IEEE Access, 2019, 7, 99065-99076.	4.2	124
42	Special Issue on Machine Vision. International Journal of Computer Vision, 2019, 127, 1611-1613.	15.6	5
43	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.	10.2	304
44	Attention gated networks: Learning to leverage salient regions in medical images. Medical Image Analysis, 2019, 53, 197-207.	11.6	1,011
45	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.	2.4	41
46	Quantitative error prediction of medical image registration using regression forests. Medical Image Analysis, 2019, 56, 110-121.	11.6	28
47	TeTrIS: Template Transformer Networks for Image Segmentation With Shape Priors. IEEE Transactions on Medical Imaging, 2019, 38, 2596-2606.	8.9	78
48	Automated quality control in image segmentation: application to the UK Biobank cardiovascular magnetic resonance imaging study. Journal of Cardiovascular Magnetic Resonance, 2019, 21, 18.	3.3	78
49	Evaluating reinforcement learning agents for anatomical landmark detection. Medical Image Analysis, 2019, 53, 156-164.	11.6	121
50	Learning-Based Quality Control for Cardiac MR Images. IEEE Transactions on Medical Imaging, 2019, 38, 1127-1138.	8.9	42
51	Improving RetinaNet for CT Lesion Detection with Dense Masks from Weak RECIST Labels. Lecture Notes in Computer Science, 2019, , 402-410.	1.3	62
52	Overfitting of Neural Nets Under Class Imbalance: Analysis and Improvements for Segmentation. Lecture Notes in Computer Science, 2019, , 402-410.	1.3	39
53	Unsupervised Lesion Detection with Locally Gaussian Approximation. Lecture Notes in Computer Science, 2019, , 355-363.	1.3	3
54	Controlling Meshes via Curvature: Spin Transformations for Pose-Invariant Shape Processing. Lecture Notes in Computer Science, 2019, , 221-234.	1.3	0

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55	Anatomically Constrained Neural Networks (ACNNs): Application to Cardiac Image Enhancement and Segmentation. IEEE Transactions on Medical Imaging, 2018, 37, 384-395.	8.9	493
56	Metric learning with spectral graph convolutions on brain connectivity networks. NeuroImage, 2018, 169, 431-442.	4.2	237
57	3-D Reconstruction in Canonical Co-Ordinate Space From Arbitrarily Oriented 2-D Images. IEEE Transactions on Medical Imaging, 2018, 37, 1737-1750.	8.9	60
58	Multimodal surface matching with higher-order smoothness constraints. NeuroImage, 2018, 167, 453-465.	4.2	219
59	Small Organ Segmentation in Whole-Body MRI Using a Two-Stage FCN and Weighting Schemes. Lecture Notes in Computer Science, 2018, , 346-354.	1.3	16
60	Automated cardiovascular magnetic resonance image analysis with fully convolutional networks. Journal of Cardiovascular Magnetic Resonance, 2018, 20, 65.	3.3	468
61	On the Adaptability of Unsupervised CNN-Based Deformable Image Registration to Unseen Image Domains. Lecture Notes in Computer Science, 2018, , 294-302.	1.3	21
62	Disease prediction using graph convolutional networks: Application to Autism Spectrum Disorder and Alzheimerâ€™s disease. Medical Image Analysis, 2018, 48, 117-130.	11.6	391
63	Reconstructing subject-specific effect maps. NeuroImage, 2018, 181, 521-538.	4.2	4
64	Multi-modal Learning from Unpaired Images: Application to Multi-organ Segmentation in CT and MRI. , 2018, , .		61
65	Automatic View Planning with Multi-scale Deep Reinforcement Learning Agents. Lecture Notes in Computer Science, 2018, , 277-285.	1.3	27
66	Automatic Localization of the Lumbar Vertebral Landmarks in CT Images with Context Features. Lecture Notes in Computer Science, 2018, , 59-71.	1.3	2
67	Reverse Classification Accuracy: Predicting Segmentation Performance in the Absence of Ground Truth. IEEE Transactions on Medical Imaging, 2017, 36, 1597-1606.	8.9	85
68	Robust guidewire tracking under large deformations combining segment-like features (SEGlets). Medical Image Analysis, 2017, 38, 150-164.	11.6	29
69	A flexible graphical model for multi-modal parcellation of the cortex. NeuroImage, 2017, 162, 226-248.	4.2	7
70	Fully automatic, multiorgan segmentation in normal whole body magnetic resonance imaging (<scp>MRI</scp>), using classification forests (<scp>CF</scp>s), convolutional neural networks (<scp>CNN</scp>s), and a multiâ€atlas (<scp>MA</scp>) approach. Medical Physics, 2017, 44, 5210-5220.	3.0	31
71	Learning and combining image neighborhoods using random forests for neonatal brain disease classification. Medical Image Analysis, 2017, 42, 189-199.	11.6	9
72	Traumatic brain injury: integrated approaches to improve prevention, clinical care, and research. Lancet Neurology, The, 2017, 16, 987-1048.	10.2	1,571

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73	Efficient multi-scale 3D CNN with fully connected CRF for accurate brain lesion segmentation. Medical Image Analysis, 2017, 36, 61-78.	11.6	2,382
74	Evaluation and comparison of 3D intervertebral disc localization and segmentation methods for 3D T2 MR data: A grand challenge. Medical Image Analysis, 2017, 35, 327-344.	11.6	59
75	Supervoxel classification forests for estimating pairwise image correspondences. Pattern Recognition, 2017, 63, 561-569.	8.1	21
76	ISLES 2015 - A public evaluation benchmark for ischemic stroke lesion segmentation from multispectral MRI. Medical Image Analysis, 2017, 35, 250-269.	11.6	360
77	Stratified Decision Forests for Accurate Anatomical Landmark Localization in Cardiac Images. IEEE Transactions on Medical Imaging, 2017, 36, 332-342.	8.9	56
78	Abnormal brain white matter microstructure is associated with both pre-hypertension and hypertension. PLoS ONE, 2017, 12, e0187600.	2.5	47
79	Regional brain morphometry in patients with traumatic brain injury based on acute- and chronic-phase magnetic resonance imaging. PLoS ONE, 2017, 12, e0188152.	2.5	25
80	Unsupervised Domain Adaptation in Brain Lesion Segmentation with Adversarial Networks. Lecture Notes in Computer Science, 2017, , 597-609.	1.3	241
81	Learning-Based Heart Coverage Estimation for Short-Axis Cine Cardiac MR Images. Lecture Notes in Computer Science, 2017, , 73-82.	1.3	3
82	Joint Supervoxel Classification Forest for Weakly-Supervised Organ Segmentation. Lecture Notes in Computer Science, 2017, , 79-87.	1.3	4
83	Multi-channel MRI segmentation of eye structures and tumors using patient-specific features. PLoS ONE, 2017, 12, e0173900.	2.5	13
84	Discrete Optimisation for Group-Wise Cortical Surface Atlasing. , 2016, , .		2
85	ElasticFusion: Real-time dense SLAM and light source estimation. International Journal of Robotics Research, 2016, 35, 1697-1716.	8.5	469
86	(Hyper)-graphical models in biomedical image analysis. Medical Image Analysis, 2016, 33, 102-106.	11.6	14
87	Learning clinically useful information from images: Past, present and future. Medical Image Analysis, 2016, 33, 13-18.	11.6	22
88	Note Special Issue on Discrete Graphical Models in Biomedical Image Analysis. Medical Image Analysis, 2016, 27, 1-2.	11.6	0
89	Fast Fully Automatic Segmentation of the Human Placenta from Motion Corrupted MRI. Lecture Notes in Computer Science, 2016, , 589-597.	1.3	34
90	DeepMedic for Brain Tumor Segmentation. Lecture Notes in Computer Science, 2016, , 138-149.	1.3	170

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91	Learning to detect and track cells for quantitative analysis of time-lapse microscopic image sequences. , 2015, , .		1
92	Motion Segmentation of Truncated Signed Distance Function Based Volumetric Surfaces. , 2015, , .		15
93	The Multimodal Brain Tumor Image Segmentation Benchmark (BRATS). IEEE Transactions on Medical Imaging, 2015, 34, 1993-2024.	8.9	3,589
94	Supervoxel Classification Forests for Estimating Pairwise Image Correspondences. Lecture Notes in Computer Science, 2015, , 94-101.	1.3	6
95	Uncertainty-Driven Forest Predictors for Vertebra Localization and Segmentation. Lecture Notes in Computer Science, 2015, , 653-660.	1.3	10
96	Automatic Brain Localization in Fetal MRI Using Superpixel Graphs. Lecture Notes in Computer Science, 2015, , 13-22.	1.3	10
97	Learning and Combining Image Similarities for Neonatal Brain Population Studies. Lecture Notes in Computer Science, 2015, , 110-117.	1.3	0
98	Multi-output Learning for Camera Relocalization. , 2014, , .		65
99	[DEMO] Dense planar SLAM. , 2014, , .		1
100	Robust Registration of Longitudinal Spine CT. Lecture Notes in Computer Science, 2014, 17, 251-258.	1.3	12
101	Encoding atlases by randomized classification forests for efficient multi-atlas label propagation. Medical Image Analysis, 2014, 18, 1262-1273.	11.6	74
102	Geodesic Patch-Based Segmentation. Lecture Notes in Computer Science, 2014, 17, 666-673.	1.3	29
103	Quantifying Progression of Multiple Sclerosis via Classification of Depth Videos. Lecture Notes in Computer Science, 2014, 17, 429-437.	1.3	23
104	Atlas Encoding by Randomized Forests for Efficient Label Propagation. Lecture Notes in Computer Science, 2013, 16, 66-73.	1.3	41
105	Interventional Tool Tracking Using Discrete Optimization. IEEE Transactions on Medical Imaging, 2013, 32, 544-555.	8.9	49
106	Real-time RGB-D camera relocalization. , 2013, , .		106
107	Neighbourhood approximation using randomized forests. Medical Image Analysis, 2013, 17, 790-804.	11.6	59
108	WESD--Weighted Spectral Distance for Measuring Shape Dissimilarity. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 2284-2297.	13.9	36

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109	Scene Coordinate Regression Forests for Camera Relocalization in RGB-D Images. , 2013, , .		496
110	Vertebrae Localization in Pathological Spine CT via Dense Classification from Sparse Annotations. Lecture Notes in Computer Science, 2013, 16, 262-270.	1.3	110
111	Modality Propagation: Coherent Synthesis of Subject-Specific Scans with Data-Driven Regularization. Lecture Notes in Computer Science, 2013, 16, 606-613.	1.3	57
112	Is Synthesizing MRI Contrast Useful for Inter-modality Analysis?. Lecture Notes in Computer Science, 2013, 16, 631-638.	1.3	81
113	Neighbourhood Approximation Forests. Lecture Notes in Computer Science, 2012, 15, 75-82.	1.3	13
114	Discriminative Segmentation-Based Evaluation Through Shape Dissimilarity. IEEE Transactions on Medical Imaging, 2012, 31, 2278-2289.	8.9	8
115	Decision Forests for Tissue-Specific Segmentation of High-Grade Gliomas in Multi-channel MR. Lecture Notes in Computer Science, 2012, 15, 369-376.	1.3	160
116	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.	11.6	40
117	Automatic Localization and Identification of Vertebrae in Arbitrary Field-of-View CT Scans. Lecture Notes in Computer Science, 2012, 15, 590-598.	1.3	104
118	Joint Classification-Regression Forests for Spatially Structured Multi-object Segmentation. Lecture Notes in Computer Science, 2012, , 870-881.	1.3	46
119	Deformable Medical Image Registration: Setting the State of the Art with Discrete Methods. Annual Review of Biomedical Engineering, 2011, 13, 219-244.	12.3	163
120	Evaluation of Registration Methods on Thoracic CT: The EMPIRE10 Challenge. IEEE Transactions on Medical Imaging, 2011, 30, 1901-1920.	8.9	363
121	Fast Multiple Organ Detection and Localization in Whole-Body MR Dixon Sequences. Lecture Notes in Computer Science, 2011, 14, 239-247.	1.3	64
122	Linear intensity-based image registration by Markov random fields and discrete optimization. Medical Image Analysis, 2010, 14, 550-562.	11.6	38
123	Needle tracking through higher-order MRF optimization. , 2010, , .		1
124	Markov random field optimization for intensity-based 2D-3D registration. Proceedings of SPIE, 2010, , .	0.8	8
125	Simultaneous Geometric - Iconic Registration. Lecture Notes in Computer Science, 2010, 13, 676-683.	1.3	21
126	Biomedical image analysis using markov random fields &#x00026; efficient linear programing. , 2009, 2009, 6628-31.		0

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127	Sphere extraction in MR images with application to whole-body MRI. Proceedings of SPIE, 2009, , .	0.8	0
128	Linear image registration through MRF optimization. , 2009, , .		9
129	Dense Registration with Deformation Priors. Lecture Notes in Computer Science, 2009, 21, 540-551.	1.3	19
130	Probabilistic Region Matching in Narrow-Band Endoscopy for Targeted Optical Biopsy. Lecture Notes in Computer Science, 2009, 12, 499-506.	1.3	14
131	Graphical Models and Deformable Diffeomorphic Population Registration Using Global and Local Metrics. Lecture Notes in Computer Science, 2009, 12, 672-679.	1.3	17
132	Approximated Curvature Penalty in Non-rigid Registration Using Pairwise MRFs. Lecture Notes in Computer Science, 2009, , 1101-1109.	1.3	11
133	Dense image registration through MRFs and efficient linear programming. Medical Image Analysis, 2008, 12, 731-741.	11.6	344
134	Computing minimal deformations: application to construction of statistical shape models. , 2008, , .		4
135	Real-time respiratory motion tracking: roadmap correction for hepatic artery catheterizations. , 2008, , .		15
136	Adaptive parametrization of multivariate B-splines for image registration. , 2008, , .		11
137	Optical flow estimation with uncertainties through dynamic MRFs. , 2008, , .		45
138	Deformable Mosaicing for Whole-Body MRI. Lecture Notes in Computer Science, 2008, 11, 113-121.	1.3	11
139	Towards a computer-aided diagnosis system for colon motility dysfunctions. , 2007, , .		3
140	Inter and Intra-modal Deformable Registration: Continuous Deformations Meet Efficient Optimal Linear Programming. Lecture Notes in Computer Science, 2007, 20, 408-420.	1.3	38
141	Primal/Dual Linear Programming and Statistical Atlases for Cartilage Segmentation. , 2007, 10, 536-543.		22