Ben Glocker

List of Publications by Citations

136 papers	10,455 citations	39 h-index	101 g-index
145 ext. papers	13,878 ext. citations	7.7 avg, IF	6.26 L-index

#	Paper	IF	Citations
136	The Multimodal Brain Tumor Image Segmentation Benchmark (BRATS). *IEEE Transactions on Medical Imaging*, **2015**, 34, 1993-2024	11.7	2132
135	Efficient multi-scale 3D CNN with fully connected CRF for accurate brain lesion segmentation. *Medical Image Analysis*, **2017**, 36, 61-78	15.4	1630
134	Traumatic brain injury: integrated approaches to improve prevention, clinical care, and research. *Lancet Neurology, The*, **2017**, 16, 987-1048	24.1	851
133	Attention gated networks: Learning to leverage salient regions in medical images. *Medical Image Analysis*, **2019**, 53, 197-207	15.4	400
132	Anatomically Constrained Neural Networks (ACNNs): Application to Cardiac Image Enhancement and Segmentation. *IEEE Transactions on Medical Imaging*, **2018**, 37, 384-395	11.7	333
131	Evaluation of registration methods on thoracic CT: the EMPIRE10 challenge. *IEEE Transactions on Medical Imaging*, **2011**, 30, 1901-20	11.7	311
130	ElasticFusion: Real-time dense SLAM and light source estimation. *International Journal of Robotics Research*, **2016**, 35, 1697-1716	5.7	288
129	Dense image registration through MRFs and efficient linear programming. *Medical Image Analysis*, **2008**, 12, 731-41	15.4	287
128	Automated cardiovascular magnetic resonance image analysis with fully convolutional networks. *Journal of Cardiovascular Magnetic Resonance*, **2018**, 20, 65	6.9	285
127	Scene Coordinate Regression Forests for Camera Relocalization in RGB-D Images **2013**,		279
126	ISLES 2015 - A public evaluation benchmark for ischemic stroke lesion segmentation from multispectral MRI. *Medical Image Analysis*, **2017**, 35, 250-269	15.4	248
125	Disease prediction using graph convolutional networks: Application to Autism Spectrum Disorder and Alzheimer's disease. *Medical Image Analysis*, **2018**, 48, 117-130	15.4	186
124	Unsupervised Domain Adaptation in Brain Lesion Segmentation with Adversarial Networks. *Lecture Notes in Computer Science*, **2017**, 597-609	0.9	168
123	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	24.1	139
122	Deformable medical image registration: setting the state of the art with discrete methods. *Annual Review of Biomedical Engineering*, **2011**, 13, 219-44	12	131
121	Decision forests for tissue-specific segmentation of high-grade gliomas in multi-channel MR. *Lecture Notes in Computer Science*, **2012**, 15, 369-76	0.9	128
120	Multimodal surface matching with higher-order smoothness constraints. *NeuroImage*, **2018**, 167, 453-465	5.9	124

119	Metric learning with spectral graph convolutions on brain connectivity networks. *NeuroImage*, **2018**, 169, 431-442	7.9	122
118	DeepMedic for Brain Tumor Segmentation. *Lecture Notes in Computer Science*, **2016**, 138-149	0.9	114
117	Vertebrae localization in pathological spine CT via dense classification from sparse annotations. *Lecture Notes in Computer Science*, **2013**, 16, 262-70	0.9	83
116	Automatic localization and identification of vertebrae in arbitrary field-of-view CT scans. *Lecture Notes in Computer Science*, **2012**, 15, 590-8	0.9	82
115	Encoding atlases by randomized classification forests for efficient multi-atlas label propagation. *Medical Image Analysis*, **2014**, 18, 1262-73	15.4	71
114	Evaluating reinforcement learning agents for anatomical landmark detection. *Medical Image Analysis*, **2019**, 53, 156-164	15.4	68
113	Is synthesizing MRI contrast useful for inter-modality analysis?. *Lecture Notes in Computer Science*, **2013**, 16, 631-8	0.9	68
112	PnP-AdaNet: Plug-and-Play Adversarial Domain Adaptation Network at Unpaired Cross-Modality Cardiac Segmentation. *IEEE Access*, **2019**, 7, 99065-99076	3.5	63
111	Real-time RGB-D camera relocalization **2013**,		59
110	Reverse Classification Accuracy: Predicting Segmentation Performance in the Absence of Ground Truth. *IEEE Transactions on Medical Imaging*, **2017**, 36, 1597-1606	11.7	57
109	Causality matters in medical imaging. *Nature Communications*, **2020**, 11, 3673	17.4	56
108	Fast multiple organ detection and localization in whole-body MR dixon sequences. *Lecture Notes in Computer Science*, **2011**, 14, 239-47	0.9	53
107	Unpaired Multi-Modal Segmentation via Knowledge Distillation. *IEEE Transactions on Medical Imaging*, **2020**, 39, 2415-2425	11.7	52
106	Neighbourhood approximation using randomized forests. *Medical Image Analysis*, **2013**, 17, 790-804	15.4	51
105	Modality propagation: coherent synthesis of subject-specific scans with data-driven regularization. *Lecture Notes in Computer Science*, **2013**, 16, 606-13	0.9	50
104	Automated quality control in image segmentation: application to the UK Biobank cardiovascular magnetic resonance imaging study. *Journal of Cardiovascular Magnetic Resonance*, **2019**, 21, 18	6.9	49
103	Multi-output Learning for Camera Relocalization **2014**,		48
102	Machine learning algorithms performed no better than regression models for prognostication in traumatic brain injury. *Journal of Clinical Epidemiology*, **2020**, 122, 95-107	5.7	47

101	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	15.4	46
100	Atlas encoding by randomized forests for efficient label propagation. *Lecture Notes in Computer Science*, **2013**, 16, 66-73	0.9	40
99	Stratified Decision Forests for Accurate Anatomical Landmark Localization in Cardiac Images. *IEEE Transactions on Medical Imaging*, **2017**, 36, 332-342	11.7	40
98	Interventional tool tracking using discrete optimization. *IEEE Transactions on Medical Imaging*, **2013**, 32, 544-55	11.7	39
97	Joint Classification-Regression Forests for Spatially Structured Multi-object Segmentation. *Lecture Notes in Computer Science*, **2012**, 870-881	0.9	37
96	Improving RetinaNet for CT Lesion Detection with Dense Masks from Weak RECIST Labels. *Lecture Notes in Computer Science*, **2019**, 402-410	0.9	36
95	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	14.4	35
94	Multi-modal Learning from Unpaired Images: Application to Multi-organ Segmentation in CT and MRI **2018**,		35
93	TeTrIS: Template Transformer Networks for Image Segmentation With Shape Priors. *IEEE Transactions on Medical Imaging*, **2019**, 38, 2596-2606	11.7	34
92	Optical flow estimation with uncertainties through dynamic MRFs **2008**,		34
91	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	15.4	33
90	Linear intensity-based image registration by Markov random fields and discrete optimization. *Medical Image Analysis*, **2010**, 14, 550-62	15.4	33
89	3-D Reconstruction in Canonical Co-Ordinate Space From Arbitrarily Oriented 2-D Images. *IEEE Transactions on Medical Imaging*, **2018**, 37, 1737-1750	11.7	32
88	Learning-Based Quality Control for Cardiac MR Images. *IEEE Transactions on Medical Imaging*, **2019**, 38, 1127-1138	11.7	31
87	WESD--Weighted Spectral Distance for measuring shape dissimilarity. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2013**, 35, 2284-97	13.3	30
86	Abnormal brain white matter microstructure is associated with both pre-hypertension and hypertension. *PLoS ONE*, **2017**, 12, e0187600	3.7	29
85	Federated deep learning for detecting COVID-19 lung abnormalities in CT: a privacy-preserving multinational validation study. *Npj Digital Medicine*, **2021**, 4, 60	15.7	29
84	Inter and intra-modal deformable registration: continuous deformations meet efficient optimal linear programming. *Information Processing in Medical Imaging*, **2007**, 20, 408-20		28

83	Fast Fully Automatic Segmentation of the Human Placenta from Motion Corrupted MRI. *Lecture Notes in Computer Science*, **2016**, 589-597	0.9	25
82	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	4.4	23
81	Geodesic patch-based segmentation. *Lecture Notes in Computer Science*, **2014**, 17, 666-73	0.9	22
80	Overfitting of Neural Nets Under Class Imbalance: Analysis and Improvements for Segmentation. *Lecture Notes in Computer Science*, **2019**, 402-410	0.9	21
79	Primal/dual linear programming and statistical atlases for cartilage segmentation **2007**, 10, 536-43		21
78	Fully automatic, multiorgan segmentation in normal whole body magnetic resonance imaging (MRI), using classification forests (CFs), convolutional neural networks (CNNs), and a multi-atlas (MA) approach. *Medical Physics*, **2017**, 44, 5210-5220	4.4	20
77	Automatic View Planning with Multi-scale Deep Reinforcement Learning Agents. *Lecture Notes in Computer Science*, **2018**, 277-285	0.9	20
76	Regional brain morphometry in patients with traumatic brain injury based on acute- and chronic-phase magnetic resonance imaging. *PLoS ONE*, **2017**, 12, e0188152	3.7	19
75	Simultaneous geometric--iconic registration. *Lecture Notes in Computer Science*, **2010**, 13, 676-83	0.9	19
74	VerSe: A Vertebrae labelling and segmentation benchmark for multi-detector CT images. *Medical Image Analysis*, **2021**, 73, 102166	15.4	19
73	Post-DAE: Anatomically Plausible Segmentation via Post-Processing With Denoising Autoencoders. *IEEE Transactions on Medical Imaging*, **2020**, 39, 3813-3820	11.7	18
72	Supervoxel classification forests for estimating pairwise image correspondences. *Pattern Recognition*, **2017**, 63, 561-569	7.7	18
71	Quantifying progression of multiple sclerosis via classification of depth videos. *Lecture Notes in Computer Science*, **2014**, 17, 429-37	0.9	17
70	Robust guidewire tracking under large deformations combining segment-like features (SEGlets). *Medical Image Analysis*, **2017**, 38, 150-164	15.4	16
69	Quantitative error prediction of medical image registration using regression forests. *Medical Image Analysis*, **2019**, 56, 110-121	15.4	16
68	TriangleFlow: Optical Flow with Triangulation-Based Higher-Order Likelihoods. *Lecture Notes in Computer Science*, **2010**, 272-285	0.9	16
67	Dense registration with deformation priors. *Lecture Notes in Computer Science*, **2009**, 21, 540-51	0.9	15
66	Large-scale Quality Control of Cardiac Imaging in Population Studies: Application to UK Biobank. *Scientific Reports*, **2020**, 10, 2408	4.9	13

65	Neighbourhood approximation forests. *Lecture Notes in Computer Science*, **2012**, 15, 75-82	0.9	13
64	Probabilistic region matching in narrow-band endoscopy for targeted optical biopsy. *Lecture Notes in Computer Science*, **2009**, 12, 499-506	0.9	13
63	Analyzing Overfitting Under Class Imbalance in Neural Networks for Image Segmentation. *IEEE Transactions on Medical Imaging*, **2021**, 40, 1065-1077	11.7	13
62	Evaluation of Deep Learning to Augment Image-Guided Radiotherapy for Head and Neck and Prostate Cancers. *JAMA Network Open*, **2020**, 3, e2027426	10.4	12
61	Motion Segmentation of Truncated Signed Distance Function Based Volumetric Surfaces **2015**,		12
60	Real-time respiratory motion tracking: roadmap correction for hepatic artery catheterizations **2008**,		12
59	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	5.4	11
58	Approximated Curvature Penalty in Non-rigid Registration Using Pairwise MRFs. *Lecture Notes in Computer Science*, **2009**, 1101-1109	0.9	11
57	On the Adaptability of Unsupervised CNN-Based Deformable Image Registration to Unseen Image Domains. *Lecture Notes in Computer Science*, **2018**, 294-302	0.9	11
56	Nonlinear biomarker interactions in conversion from mild cognitive impairment to Alzheimer's disease. *Human Brain Mapping*, **2020**, 41, 4406-4418	5.9	10
55	Graphical models and deformable diffeomorphic population registration using global and local metrics. *Lecture Notes in Computer Science*, **2009**, 12, 672-9	0.9	10
54	AutoImplant 2020-First MICCAI Challenge on Automatic Cranial Implant Design. *IEEE Transactions on Medical Imaging*, **2021**, 40, 2329-2342	11.7	10
53	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	5.4	9
52	Robust registration of longitudinal spine CT. *Lecture Notes in Computer Science*, **2014**, 17, 251-8	0.9	9
51	Adaptive parametrization of multivariate B-splines for image registration **2008**,		9
50	Multi-channel MRI segmentation of eye structures and tumors using patient-specific features. *PLoS ONE*, **2017**, 12, e0173900	3.7	9
49	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	5.4	8
48	Learning and combining image neighborhoods using random forests for neonatal brain disease classification. *Medical Image Analysis*, **2017**, 42, 189-199	15.4	8

47	Linear image registration through MRF optimization **2009**,		8
46	Small Organ Segmentation in Whole-Body MRI Using a Two-Stage FCN and Weighting Schemes. *Lecture Notes in Computer Science*, **2018**, 346-354	0.9	8
45	Cranial Implant Design via Virtual Craniectomy with Shape Priors. *Lecture Notes in Computer Science* , **2020**, 37-46	0.9	7
44	Self-supervised Skull Reconstruction in Brain CT Images with Decompressive Craniectomy. *Lecture Notes in Computer Science*, **2020**, 390-399	0.9	7
43	Uncertainty-Driven Forest Predictors for Vertebra Localization and Segmentation. *Lecture Notes in Computer Science*, **2015**, 653-660	0.9	7
42	Automatic Brain Localization in Fetal MRI Using Superpixel Graphs. *Lecture Notes in Computer Science*, **2015**, 13-22	0.9	7
41	Discriminative segmentation-based evaluation through shape dissimilarity. *IEEE Transactions on Medical Imaging*, **2012**, 31, 2278-89	11.7	6
40	Markov random field optimization for intensity-based 2D-3D registration **2010**,		6
39	Image-Level Harmonization of Multi-site Data Using Image-and-Spatial Transformer Networks. *Lecture Notes in Computer Science*, **2020**, 710-719	0.9	6
38	Automated vertebrae localization and identification by decision forests and image-based refinement on real-world CT data. *Radiologia Medica*, **2020**, 125, 48-56	6.5	6
37	A flexible graphical model for multi-modal parcellation of the cortex. *NeuroImage*, **2017**, 162, 226-248	7.9	5
36	A quality assessment tool for artificial intelligence-centered diagnostic test accuracy studies: QUADAS-AI. *Nature Medicine*, **2021**, 27, 1663-1665	50.5	5
35	Deformable mosaicing for whole-body MRI. *Lecture Notes in Computer Science*, **2008**, 11, 113-21	0.9	5
34	Deep Generative Model-Based Quality Control for Cardiac MRI Segmentation. *Lecture Notes in Computer Science*, **2020**, 88-97	0.9	5
33	The medical algorithmic audit.. *The Lancet Digital Health*, **2022**,	14.4	5
32	Supervoxel Classification Forests for Estimating Pairwise Image Correspondences. *Lecture Notes in Computer Science*, **2015**, 94-101	0.9	4
31	Relationship of admission blood proteomic biomarkers levels to lesion type and lesion burden in traumatic brain injury: A CENTER-TBI study.. *EBioMedicine*, **2021**, 75, 103777	8.8	4
30	Random forests in medical image computing **2020**, 457-480		4

29	Volume Change in Frontal Cholinergic Structures After Traumatic Brain Injury and Cognitive Outcome. *Frontiers in Neurology*, **2020**, 11, 832	4.1	4
28	Adversarial interference and its mitigations in privacy-preserving collaborative machine learning. *Nature Machine Intelligence*, **2021**, 3, 749-758	22.5	4
27	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	10.1	4
26	Reconstructing subject-specific effect maps. *NeuroImage*, **2018**, 181, 521-538	7.9	3
25	Computing minimal deformations: application to construction of statistical shape models **2008**,		3
24	Towards a computer-aided diagnosis system for colon motility dysfunctions **2007**,		3
23	Unsupervised Lesion Detection with Locally Gaussian Approximation. *Lecture Notes in Computer Science*, **2019**, 355-363	0.9	3
22	Learning-Based Heart Coverage Estimation for Short-Axis Cine Cardiac MR Images. *Lecture Notes in Computer Science*, **2017**, 73-82	0.9	3
21	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	5.4	3
20	Perceived Realism of High-Resolution Generative Adversarial Network-derived Synthetic Mammograms. *Radiology: Artificial Intelligence*, **2021**, 3, e190181	8.7	3
19	Special Issue on Machine Vision. *International Journal of Computer Vision*, **2019**, 127, 1611-1613	10.6	2
18	Atlas-ISTN: Joint segmentation, registration and atlas construction with image-and-spatial transformer networks.. *Medical Image Analysis*, **2022**, 78, 102383	15.4	2
17	Joint Supervoxel Classification Forest for Weakly-Supervised Organ Segmentation. *Lecture Notes in Computer Science*, **2017**, 79-87	0.9	2
16	Classifier-Based Multi-atlas Label Propagation with Test-Specific Atlas Weighting for Correspondence-Free Scenarios. *Lecture Notes in Computer Science*, **2014**, 116-124	0.9	2
15	Discrete Optimisation for Group-Wise Cortical Surface Atlasing **2016**,		2
14	Normative ascent with local gaussians for unsupervised lesion detection. *Medical Image Analysis*, **2021**, 74, 102208	15.4	2
13	Active label cleaning for improved dataset quality under resource constraints.. *Nature Communications*, **2022**, 13, 1161	17.4	2
12	Needle tracking through higher-order MRF optimization **2010**,		1

11	Local Brain-Age: A U-Net Model.. *Frontiers in Aging Neuroscience*, **2021**, 13, 761954	5.3	1
10	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	2.6	1
9	Automatic Localization of the Lumbar Vertebral Landmarks in CT Images with Context Features. *Lecture Notes in Computer Science*, **2018**, 59-71	0.9	1
8	Multimodal Surface Matching with Higher-Order Smoothness Constraints?		1
7	Multiple Instance Learning with Auxiliary Task Weighting for Multiple Myeloma Classification. *Lecture Notes in Computer Science*, **2021**, 786-796	0.9	1
6	Biomedical image analysis using Markov random fields & efficient linear programing. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 6628-31	0.9	
5	Image Registration via Stochastic Gradient Markov Chain Monte Carlo. *Lecture Notes in Computer Science*, **2020**, 3-12	0.9	
4	Controlling Meshes via Curvature: Spin Transformations for Pose-Invariant Shape Processing. *Lecture Notes in Computer Science*, **2019**, 221-234	0.9	
3	Learning and Combining Image Similarities for Neonatal Brain Population Studies. *Lecture Notes in Computer Science*, **2015**, 110-117	0.9	
2	Learning from Partially Overlapping Labels: Image Segmentation Under Annotation Shift. *Lecture Notes in Computer Science*, **2021**, 123-132	0.9	
1	Transductive Image Segmentation: Self-training and Effect of Uncertainty Estimation. *Lecture Notes in Computer Science*, **2021**, 79-89	0.9	