Daniel Rueckert

List of Publications by Citations

563 papers	32,412 citations	87 h-index	170 g-index
613 ext. papers	40,461 ext. citations	5.7 avg, IF	7.35 L-index

#	Paper	IF	Citations
563	Tract-based spatial statistics: voxelwise analysis of multi-subject diffusion data. *NeuroImage*, **2006**, 31, 1487-505	7.9	4763
562	Real-Time Single Image and Video Super-Resolution Using an Efficient Sub-Pixel Convolutional Neural Network **2016**,		1793
561	Efficient multi-scale 3D CNN with fully connected CRF for accurate brain lesion segmentation. *Medical Image Analysis*, **2017**, 36, 61-78	15.4	1630
560	Evaluation of 14 nonlinear deformation algorithms applied to human brain MRI registration. *NeuroImage*, **2009**, 46, 786-802	7.9	1603
559	Automatic anatomical brain MRI segmentation combining label propagation and decision fusion. *NeuroImage*, **2006**, 33, 115-26	7.9	684
558	Multi-atlas based segmentation of brain images: atlas selection and its effect on accuracy. *NeuroImage*, **2009**, 46, 726-38	7.9	666
557	A Deep Cascade of Convolutional Neural Networks for Dynamic MR Image Reconstruction. *IEEE Transactions on Medical Imaging*, **2018**, 37, 491-503	11.7	503
556	Acquisition and voxelwise analysis of multi-subject diffusion data with tract-based spatial statistics. *Nature Protocols*, **2007**, 2, 499-503	18.8	472
555	Attention gated networks: Learning to leverage salient regions in medical images. *Medical Image Analysis*, **2019**, 53, 197-207	15.4	400
554	Anatomically Constrained Neural Networks (ACNNs): Application to Cardiac Image Enhancement and Segmentation. *IEEE Transactions on Medical Imaging*, **2018**, 37, 384-395	11.7	333
553	Fast and robust multi-atlas segmentation of brain magnetic resonance images. *NeuroImage*, **2010**, 49, 2352-65	7.9	297
552	Random forest-based similarity measures for multi-modal classification of Alzheimer's disease. *NeuroImage*, **2013**, 65, 167-75	7.9	286
551	Automated cardiovascular magnetic resonance image analysis with fully convolutional networks. *Journal of Cardiovascular Magnetic Resonance*, **2018**, 20, 65	6.9	285
550	Automatic construction of 3-D statistical deformation models of the brain using nonrigid registration. *IEEE Transactions on Medical Imaging*, **2003**, 22, 1014-25	11.7	284
549	ISLES 2015 - A public evaluation benchmark for ischemic stroke lesion segmentation from multispectral MRI. *Medical Image Analysis*, **2017**, 35, 250-269	15.4	248
548	Automatic construction of multiple-object three-dimensional statistical shape models: application to cardiac modeling. *IEEE Transactions on Medical Imaging*, **2002**, 21, 1151-66	11.7	244
547	Automatic segmentation of brain MRIs of 2-year-olds into 83 regions of interest. *NeuroImage*, **2008**, 40, 672-684	7.9	239

546	The effect of preterm birth on thalamic and cortical development. *Cerebral Cortex*, **2012**, 22, 1016-24	5.1	221
545	Segmentation of 4D cardiac MR images using a probabilistic atlas and the EM algorithm. *Medical Image Analysis*, **2004**, 8, 255-65	15.4	219
544	Convolutional Recurrent Neural Networks for Dynamic MR Image Reconstruction. *IEEE Transactions on Medical Imaging*, **2019**, 38, 280-290	11.7	218
543	Rich-club organization of the newborn human brain. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 7456-61	11.5	217
542	A dynamic 4D probabilistic atlas of the developing brain. *NeuroImage*, **2011**, 54, 2750-63	7.9	213
541	Multi-method analysis of MRI images in early diagnostics of Alzheimer's disease. *PLoS ONE*, **2011**, 6, e25446	3.7	204
540	Deep Learning for Cardiac Image Segmentation: A Review. *Frontiers in Cardiovascular Medicine*, **2020**, 7, 25	5.4	203
539	Construction of a consistent high-definition spatio-temporal atlas of the developing brain using adaptive kernel regression. *NeuroImage*, **2012**, 59, 2255-65	7.9	201
538	Abnormal deep grey matter development following preterm birth detected using deformation-based morphometry. *NeuroImage*, **2006**, 32, 70-8	7.9	195
537	Geodesic Information Flows: Spatially-Variant Graphs and Their Application to Segmentation and Fusion. *IEEE Transactions on Medical Imaging*, **2015**, 34, 1976-88	11.7	194
536	LEAP: learning embeddings for atlas propagation. *NeuroImage*, **2010**, 49, 1316-25	7.9	190
535	Automatic whole brain MRI segmentation of the developing neonatal brain. *IEEE Transactions on Medical Imaging*, **2014**, 33, 1818-31	11.7	189
534	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
533	Automated abdominal multi-organ segmentation with subject-specific atlas generation. *IEEE Transactions on Medical Imaging*, **2013**, 32, 1723-30	11.7	180
532	Titin-truncating variants affect heart function in disease cohorts and the general population. *Nature Genetics*, **2017**, 49, 46-53	36.3	179
531	Human brain mapping: A systematic comparison of parcellation methods for the human cerebral cortex. *NeuroImage*, **2018**, 170, 5-30	7.9	177
530	Segmentation of MR images via discriminative dictionary learning and sparse coding: application to hippocampus labeling. *NeuroImage*, **2013**, 76, 11-23	7.9	168
529	Unsupervised Domain Adaptation in Brain Lesion Segmentation with Adversarial Networks. *Lecture Notes in Computer Science*, **2017**, 597-609	0.9	168

528	Automatic segmentation and reconstruction of the cortex from neonatal MRI. *NeuroImage*, **2007**, 38, 461-77	7.9	164
527	Secure, privacy-preserving and federated machine learning in medical imaging. *Nature Machine Intelligence*, **2020**, 2, 305-311	22.5	162
526	The developing human connectome project: A minimal processing pipeline for neonatal cortical surface reconstruction. *NeuroImage*, **2018**, 173, 88-112	7.9	158
525	The influence of preterm birth on the developing thalamocortical connectome. *Cortex*, **2013**, 49, 1711-21	3.8	156
524	An evaluation of four automatic methods of segmenting the subcortical structures in the brain. *NeuroImage*, **2009**, 47, 1435-47	7.9	148
523	DeepCut: Object Segmentation From Bounding Box Annotations Using Convolutional Neural Networks. *IEEE Transactions on Medical Imaging*, **2017**, 36, 674-683	11.7	146
522	A probabilistic patch-based label fusion model for multi-atlas segmentation with registration refinement: application to cardiac MR images. *IEEE Transactions on Medical Imaging*, **2013**, 32, 1302-15	11.7	145
521	SonoNet: Real-Time Detection and Localisation of Fetal Standard Scan Planes in Freehand Ultrasound. *IEEE Transactions on Medical Imaging*, **2017**, 36, 2204-2215	11.7	145
520	Right ventricle segmentation from cardiac MRI: a collation study. *Medical Image Analysis*, **2015**, 19, 187-202	13.4	144
519	Fully automatic acute ischemic lesion segmentation in DWI using convolutional neural networks. *NeuroImage: Clinical*, **2017**, 15, 633-643	5.3	144
518	MRI of moving subjects using multislice snapshot images with volume reconstruction (SVR): application to fetal, neonatal, and adult brain studies. *IEEE Transactions on Medical Imaging*, **2007**, 26, 967-80	11.7	144
517	Diffeomorphic registration using B-splines. *Lecture Notes in Computer Science*, **2006**, 9, 702-9	0.9	142
516	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
515	Improving intersubject image registration using tissue-class information benefits robustness and accuracy of multi-atlas based anatomical segmentation. *NeuroImage*, **2010**, 51, 221-7	7.9	139
514	An optimised tract-based spatial statistics protocol for neonates: applications to prematurity and chronic lung disease. *NeuroImage*, **2010**, 53, 94-102	7.9	137
513	A Generic Framework for Non-rigid Registration Based on Non-uniform Multi-level Free-Form Deformations. *Lecture Notes in Computer Science*, **2001**, 573-581	0.9	131
512	Dictionary learning and time sparsity for dynamic MR data reconstruction. *IEEE Transactions on Medical Imaging*, **2014**, 33, 979-94	11.7	128
511	A common neonatal image phenotype predicts adverse neurodevelopmental outcome in children born preterm. *NeuroImage*, **2010**, 52, 409-14	7.9	126

510	Multimodal surface matching with higher-order smoothness constraints. *NeuroImage*, **2018**, 167, 453-465	7.9	124
509	Metric learning with spectral graph convolutions on brain connectivity networks. *NeuroImage*, **2018**, 169, 431-442	7.9	122
508	Magnetic resonance imaging of the newborn brain: manual segmentation of labelled atlases in term-born and preterm infants. *NeuroImage*, **2012**, 62, 1499-509	7.9	119
507	Self-supervised learning for medical image analysis using image context restoration. *Medical Image Analysis*, **2019**, 58, 101539	15.4	117
506	Diffeomorphic 3D Image Registration via Geodesic Shooting Using an Efficient Adjoint Calculation. *International Journal of Computer Vision*, **2012**, 97, 229-241	10.6	117
505	Multi-atlas segmentation with augmented features for cardiac MR images. *Medical Image Analysis*, **2015**, 19, 98-109	15.4	116
504	Machine Learning of Three-dimensional Right Ventricular Motion Enables Outcome Prediction in Pulmonary Hypertension: A Cardiac MR Imaging Study. *Radiology*, **2017**, 283, 381-390	20.5	114
503	Benchmarking framework for myocardial tracking and deformation algorithms: an open access database. *Medical Image Analysis*, **2013**, 17, 632-48	15.4	114
502	Analysis of 3-D myocardial motion in tagged MR images using nonrigid image registration. *IEEE Transactions on Medical Imaging*, **2004**, 23, 1245-50	11.7	114
501	DeepMedic for Brain Tumor Segmentation. *Lecture Notes in Computer Science*, **2016**, 138-149	0.9	114
500	Regional growth and atlasing of the developing human brain. *NeuroImage*, **2016**, 125, 456-478	7.9	113
499	Measurement of hippocampal atrophy using 4D graph-cut segmentation: application to ADNI. *NeuroImage*, **2010**, 52, 109-18	7.9	113
498	Evaluation of current algorithms for segmentation of scar tissue from late gadolinium enhancement cardiovascular magnetic resonance of the left atrium: an open-access grand challenge. *Journal of Cardiovascular Magnetic Resonance*, **2013**, 15, 105	6.9	111
497	A Deep Cascade of Convolutional Neural Networks for MR Image Reconstruction. *Lecture Notes in Computer Science*, **2017**, 647-658	0.9	111
496	Injury markers predict time to dementia in subjects with MCI and amyloid pathology. *Neurology*, **2012**, 79, 1809-16	6.5	110
495	Deep learning cardiac motion analysis for human survival prediction. *Nature Machine Intelligence*, **2019**, 1, 95-104	22.5	109
494	Multiple instance learning for classification of dementia in brain MRI. *Medical Image Analysis*, **2014**, 18, 808-18	15.4	109
493	Robust whole-brain segmentation: application to traumatic brain injury. *Medical Image Analysis*, **2015**, 21, 40-58	15.4	106

492	DRINet for Medical Image Segmentation. *IEEE Transactions on Medical Imaging*, **2018**, 37, 2453-2462	11.7	105
491	Multi-modal classification of Alzheimer's disease using nonlinear graph fusion. *Pattern Recognition*, **2017**, 63, 171-181	7.7	101
490	Multi-region analysis of longitudinal FDG-PET for the classification of Alzheimer's disease. *NeuroImage*, **2012**, 60, 221-9	7.9	101
489	Automatic morphometry in Alzheimer's disease and mild cognitive impairment. *NeuroImage*, **2011**, 56, 2024-37	7.9	101
488	Spatio-temporal free-form registration of cardiac MR image sequences. *Medical Image Analysis*, **2005**, 9, 441-56	15.4	101
487	Fast Volume Reconstruction From Motion Corrupted Stacks of 2D Slices. *IEEE Transactions on Medical Imaging*, **2015**, 34, 1901-13	11.7	100
486	Discriminative dictionary learning for abdominal multi-organ segmentation. *Medical Image Analysis*, **2015**, 23, 92-104	15.4	100
485	Cardiac image super-resolution with global correspondence using multi-atlas patchmatch. *Lecture Notes in Computer Science*, **2013**, 16, 9-16	0.9	100
484	Semi-supervised Learning for Network-Based Cardiac MR Image Segmentation. *Lecture Notes in Computer Science*, **2017**, 253-260	0.9	98
483	Registration and tracking to integrate X-ray and MR images in an XMR facility. *IEEE Transactions on Medical Imaging*, **2003**, 22, 1369-78	11.7	97
482	Sparse reduced-rank regression detects genetic associations with voxel-wise longitudinal phenotypes in Alzheimer's disease. *NeuroImage*, **2012**, 60, 700-16	7.9	96
481	Automated analysis of atrial late gadolinium enhancement imaging that correlates with endocardial voltage and clinical outcomes: a 2-center study. *Heart Rhythm*, **2013**, 10, 1184-91	6.7	95
480	Prediction of stroke thrombolysis outcome using CT brain machine learning. *NeuroImage: Clinical*, **2014**, 4, 635-40	5.3	94
479	Fast generation of digitally reconstructed radiographs using attenuation fields with application to 2D-3D image registration. *IEEE Transactions on Medical Imaging*, **2005**, 24, 1441-54	11.7	89
478	The Developing Human Connectome Project: a Minimal Processing Pipeline for Neonatal Cortical Surface Reconstruction **2018**, 173, 88-112		88
477	Automatic quantification of normal cortical folding patterns from fetal brain MRI. *NeuroImage*, **2014**, 91, 21-32	7.9	87
476	Comparison and evaluation of rigid, affine, and nonrigid registration of breast MR images. *Journal of Computer Assisted Tomography*, **1999**, 23, 800-5	2.2	87
475	Automatic 3D Bi-Ventricular Segmentation of Cardiac Images by a Shape-Refined Multi- Task Deep Learning Approach. *IEEE Transactions on Medical Imaging*, **2019**, 38, 2151-2164	11.7	85

474	A review on automatic fetal and neonatal brain MRI segmentation. *NeuroImage*, **2018**, 170, 231-248	7.9	85
473	A bi-ventricular cardiac atlas built from 1000+ high resolution MR images of healthy subjects and an analysis of shape and motion. *Medical Image Analysis*, **2015**, 26, 133-45	15.4	84
472	Fast and robust extraction of hippocampus from MR images for diagnostics of Alzheimer's disease. *NeuroImage*, **2011**, 56, 185-96	7.9	84
471	Automatic detection and quantification of hippocampal atrophy on MRI in temporal lobe epilepsy: a proof-of-principle study. *NeuroImage*, **2007**, 36, 38-47	7.9	83
470	A Review of Deep Learning in Medical Imaging: Imaging Traits, Technology Trends, Case Studies With Progress Highlights, and Future Promises. *Proceedings of the IEEE*, **2021**, 109, 820-838	14.3	83
469	Evaluation of Six Registration Methods for the Human Abdomen on Clinically Acquired CT. *IEEE Transactions on Biomedical Engineering*, **2016**, 63, 1563-72	5	82
468	Differential diagnosis of neurodegenerative diseases using structural MRI data. *NeuroImage: Clinical*, **2016**, 11, 435-449	5.3	81
467	Early growth in brain volume is preserved in the majority of preterm infants. *Annals of Neurology*, **2007**, 62, 185-92	9.4	79
466	A Novel Grading Biomarker for the Prediction of Conversion From Mild Cognitive Impairment to Alzheimer's Disease. *IEEE Transactions on Biomedical Engineering*, **2017**, 64, 155-165	5	78
465	Multi-input Cardiac Image Super-Resolution Using Convolutional Neural Networks. *Lecture Notes in Computer Science*, **2016**, 246-254	0.9	78
464	Diffusion tensor imaging (DTI) of the brain in moving subjects: application to in-utero fetal and ex-utero studies. *Magnetic Resonance in Medicine*, **2009**, 62, 645-55	4.4	78
463	Longitudinal regional brain volume changes quantified in normal aging and Alzheimer's APP x PS1 mice using MRI. *Brain Research*, **2009**, 1270, 19-32	3.7	77
462	The estimation of patient-specific cardiac diastolic functions from clinical measurements. *Medical Image Analysis*, **2013**, 17, 133-46	15.4	76
461	Identifying population differences in whole-brain structural networks: a machine learning approach. *NeuroImage*, **2010**, 50, 910-9	7.9	76
460	Recognition of 3D facial expression dynamics. *Image and Vision Computing*, **2012**, 30, 762-773	3.7	75
459	Machine learning in cardiovascular magnetic resonance: basic concepts and applications. *Journal of Cardiovascular Magnetic Resonance*, **2019**, 21, 61	6.9	74
458	Multi-template tensor-based morphometry: application to analysis of Alzheimer's disease. *NeuroImage*, **2011**, 56, 1134-44	7.9	74
457	Test sequence of CSF and MRI biomarkers for prediction of AD in subjects with MCI. *Neurobiology of Aging*, **2012**, 33, 2272-81	5.6	72

456	Measurements of medial temporal lobe atrophy for prediction of Alzheimer's disease in subjects with mild cognitive impairment. *Neurobiology of Aging*, **2013**, 34, 2003-13	5.6	69
455	Registration-based interpolation. *IEEE Transactions on Medical Imaging*, **2004**, 23, 922-6	11.7	69
454	Evaluating reinforcement learning agents for anatomical landmark detection. *Medical Image Analysis*, **2019**, 53, 156-164	15.4	68
453	Evaluation of automatic neonatal brain segmentation algorithms: the NeoBrainS12 challenge. *Medical Image Analysis*, **2015**, 20, 135-51	15.4	67
452	Magnetic resonance imaging of the newborn brain: automatic segmentation of brain images into 50 anatomical regions. *PLoS ONE*, **2013**, 8, e59990	3.7	65
451	A comprehensive cardiac motion estimation framework using both untagged and 3-D tagged MR images based on nonrigid registration. *IEEE Transactions on Medical Imaging*, **2012**, 31, 1263-75	11.7	64
450	Simultaneous multi-scale registration using large deformation diffeomorphic metric mapping. *IEEE Transactions on Medical Imaging*, **2011**, 30, 1746-59	11.7	62
449	Automated fetal brain segmentation from 2D MRI slices for motion correction. *NeuroImage*, **2014**, 101, 633-43	7.9	60
448	Automated processing pipeline for neonatal diffusion MRI in the developing Human Connectome Project. *NeuroImage*, **2019**, 185, 750-763	7.9	59
447	Spectral Graph Convolutions for Population-Based Disease Prediction. *Lecture Notes in Computer Science*, **2017**, 177-185	0.9	58
446	Standardized Evaluation System for Left Ventricular Segmentation Algorithms in 3D Echocardiography. *IEEE Transactions on Medical Imaging*, **2016**, 35, 967-77	11.7	58
445	Structural brain imaging in Alzheimer's disease and mild cognitive impairment: biomarker analysis and shared morphometry database. *Scientific Reports*, **2018**, 8, 11258	4.9	58
444	Reverse Classification Accuracy: Predicting Segmentation Performance in the Absence of Ground Truth. *IEEE Transactions on Medical Imaging*, **2017**, 36, 1597-1606	11.7	57
443	Dynamic patterns of cortical expansion during folding of the preterm human brain. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 3156-3161	11.5	56
442	Cerebral atrophy measurements using Jacobian integration: comparison with the boundary shift integral. *NeuroImage*, **2006**, 32, 159-69	7.9	54
441	Multiatlas whole heart segmentation of CT data using conditional entropy for atlas ranking and selection. *Medical Physics*, **2015**, 42, 3822-33	4.4	53
440	Global Burden of Small Vessel Disease-Related Brain Changes on MRI Predicts Cognitive and Functional Decline. *Stroke*, **2020**, 51, 170-178	6.7	53
439	Simulation of cardiac pathologies using an electromechanical biventricular model and XMR interventional imaging. *Medical Image Analysis*, **2005**, 9, 467-80	15.4	51

438	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
437	Classification and lateralization of temporal lobe epilepsies with and without hippocampal atrophy based on whole-brain automatic MRI segmentation. *PLoS ONE*, **2012**, 7, e33096	3.7	49
436	Multi-organ segmentation based on spatially-divided probabilistic atlas from 3D abdominal CT images. *Lecture Notes in Computer Science*, **2013**, 16, 165-72	0.9	49
435	Temporal sparse free-form deformations. *Medical Image Analysis*, **2013**, 17, 779-89	15.4	48
434	CINENet: deep learning-based 3D cardiac CINE MRI reconstruction with multi-coil complex-valued 4D spatio-temporal convolutions. *Scientific Reports*, **2020**, 10, 13710	4.9	48
433	Assessment of brain growth in early childhood using deformation-based morphometry. *NeuroImage* , **2008**, 39, 348-58	7.9	46
432	Dynamic Changes in White Matter Abnormalities Correlate With Late Improvement and Deterioration Following TBI: A Diffusion Tensor Imaging Study. *Neurorehabilitation and Neural Repair*, **2016**, 30, 49-62	4.7	45
431	Construction of a neonatal cortical surface atlas using Multimodal Surface Matching in the Developing Human Connectome Project. *NeuroImage*, **2018**, 179, 11-29	7.9	45
430	Multi-atlas pancreas segmentation: Atlas selection based on vessel structure. *Medical Image Analysis*, **2017**, 39, 18-28	15.4	44
429	Nonlinear dimensionality reduction combining MR imaging with non-imaging information. *Medical Image Analysis*, **2012**, 16, 819-30	15.4	44
428	Hierarchical statistical shape analysis and prediction of sub-cortical brain structures. *Medical Image Analysis*, **2008**, 12, 55-68	15.4	44
427	Spatial transformation of motion and deformation fields using nonrigid registration. *IEEE Transactions on Medical Imaging*, **2004**, 23, 1065-76	11.7	44
426	Joint Learning of Motion Estimation and Segmentation for Cardiac MR Image Sequences. *Lecture Notes in Computer Science*, **2018**, 472-480	0.9	44
425	A Multicenter, Scan-Rescan, Human and Machine Learning CMR Study to Test Generalizability and Precision in Imaging Biomarker Analysis. *Circulation: Cardiovascular Imaging*, **2019**, 12, e009214	3.9	43
424	Multi-organ abdominal CT segmentation using hierarchically weighted subject-specific atlases. *Lecture Notes in Computer Science*, **2012**, 15, 10-7	0.9	43
423	End-to-end privacy preserving deep learning on multi-institutional medical imaging. *Nature Machine Intelligence*, **2021**, 3, 473-484	22.5	43
422	Automatic CNN-based detection of cardiac MR motion artefacts using k-space data augmentation and curriculum learning. *Medical Image Analysis*, **2019**, 55, 136-147	15.4	42
421	Nonrigid Registration of Medical Images: Theory, Methods, and Applications [Applications Corner. *IEEE Signal Processing Magazine*, **2010**, 27, 113-119	9.4	42

420	Construction of a 4D statistical atlas of the cardiac anatomy and its use in classification. *Lecture Notes in Computer Science*, **2005**, 8, 402-10	0.9	42
419	Impaired development of the cerebral cortex in infants with congenital heart disease is correlated to reduced cerebral oxygen delivery. *Scientific Reports*, **2017**, 7, 15088	4.9	41
418	Classifier selection strategies for label fusion using large atlas databases **2007**, 10, 523-31		41
417	Improving the Generalizability of Convolutional Neural Network-Based Segmentation on CMR Images. *Frontiers in Cardiovascular Medicine*, **2020**, 7, 105	5.4	40
416	Stratified Decision Forests for Accurate Anatomical Landmark Localization in Cardiac Images. *IEEE Transactions on Medical Imaging*, **2017**, 36, 332-342	11.7	40
415	Recurrent Neural Networks for Aortic Image Sequence Segmentation with Sparse Annotations. *Lecture Notes in Computer Science*, **2018**, 586-594	0.9	40
414	A dynamic approach to the recognition of 3D facial expressions and their temporal models **2011**,		39
413	Segmentation of brain MRI in young children. *Academic Radiology*, **2007**, 14, 1350-66	4.3	39
412	Unsupervised Deformable Registration for Multi-modal Images via Disentangled Representations. *Lecture Notes in Computer Science*, **2019**, 249-261	0.9	38
411	A prospective evaluation of cardiovascular magnetic resonance measures of dyssynchrony in the prediction of response to cardiac resynchronization therapy. *Journal of Cardiovascular Magnetic Resonance*, **2014**, 16, 58	6.9	38
410	Adversarial and Perceptual Refinement for Compressed Sensing MRI Reconstruction. *Lecture Notes in Computer Science*, **2018**, 232-240	0.9	38
409	Manifold population modeling as a neuro-imaging biomarker: application to ADNI and ADNI-GO. *NeuroImage*, **2014**, 94, 275-286	7.9	37
408	Automatic 3D ASM Construction via Atlas-Based Landmarking and Volumetric Elastic Registration. *Lecture Notes in Computer Science*, **2001**, 78-91	0.9	36
407	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
406	Statistical shape modeling of the left ventricle: myocardial infarct classification challenge. *IEEE Journal of Biomedical and Health Informatics*, **2018**, 22, 503-515	7.2	35
405	Multi-modal Learning from Unpaired Images: Application to Multi-organ Segmentation in CT and MRI **2018**,		35
404	Reconstruction of a 3D surface from video that is robust to missing data and outliers: application to minimally invasive surgery using stereo and mono endoscopes. *Medical Image Analysis*, **2012**, 16, 597-611	15.4	35
403	Data Efficient Unsupervised Domain Adaptation For Cross-modality Image Segmentation. *Lecture Notes in Computer Science*, **2019**, 669-677	0.9	35

402	Multiple sclerosis lesion segmentation using dictionary learning and sparse coding. *Lecture Notes in Computer Science*, **2013**, 16, 735-42	0.9	35
401	Population-based studies of myocardial hypertrophy: high resolution cardiovascular magnetic resonance atlases improve statistical power. *Journal of Cardiovascular Magnetic Resonance*, **2014**, 16, 16	6.9	34
400	Brain Extraction Using Label Propagation and Group Agreement: Pincram. *PLoS ONE*, **2015**, 10, e0129211	3.7	34
399	High-resolution dynamic MR imaging of the thorax for respiratory motion correction of PET using groupwise manifold alignment. *Medical Image Analysis*, **2014**, 18, 939-52	15.4	33
398	Structural MRI in frontotemporal dementia: comparisons between hippocampal volumetry, tensor-based morphometry and voxel-based morphometry. *PLoS ONE*, **2012**, 7, e52531	3.7	33
397	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
396	Common genetic variants and risk of brain injury after preterm birth. *Pediatrics*, **2014**, 133, e1655-63	7.4	32
395	Image guidance for robotic minimally invasive coronary artery bypass. *Computerized Medical Imaging and Graphics*, **2010**, 34, 61-8	7.6	32
394	Predicting the shapes of bones at a joint: application to the shoulder. *Computer Methods in Biomechanics and Biomedical Engineering*, **2008**, 11, 19-30	2.1	32
393	A combined manifold learning analysis of shape and appearance to characterize neonatal brain development. *IEEE Transactions on Medical Imaging*, **2011**, 30, 2072-86	11.7	31
392	Self-Supervised Learning for Cardiac MR Image Segmentation by Anatomical Position Prediction. *Lecture Notes in Computer Science*, **2019**, 541-549	0.9	31
391	Group-wise parcellation of the cortex through multi-scale spectral clustering. *NeuroImage*, **2016**, 136, 68-83	7.9	31
390	Learning-Based Quality Control for Cardiac MR Images. *IEEE Transactions on Medical Imaging*, **2019**, 38, 1127-1138	11.7	31
389	A framework for combining a motion atlas with non-motion information to learn clinically useful biomarkers: Application to cardiac resynchronisation therapy response prediction. *Medical Image Analysis*, **2017**, 35, 669-684	15.4	30
388	Precursors of Hypertensive Heart Phenotype Develop in Healthy Adults: A High-Resolution 3D MRI Study. *JACC: Cardiovascular Imaging*, **2015**, 8, 1260-9	8.4	30
387	A global benchmark of algorithms for segmenting the left atrium from late gadolinium-enhanced cardiac magnetic resonance imaging. *Medical Image Analysis*, **2021**, 67, 101832	15.4	30
386	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
385	Optimizing the diagnosis of early Alzheimer's disease in mild cognitive impairment subjects. *Journal of Alzheimer's Disease*, **2012**, 32, 969-79	4.3	28

384	Automated morphological analysis of magnetic resonance brain imaging using spectral analysis. *NeuroImage*, **2008**, 43, 225-35	7.9	28
383	Comparison and evaluation of segmentation techniques for subcortical structures in brain MRI. *Lecture Notes in Computer Science*, **2008**, 11, 409-16	0.9	28
382	The developing Human Connectome Project (dHCP) automated resting-state functional processing framework for newborn infants. *NeuroImage*, **2020**, 223, 117303	7.9	28
381	Motion and deformation tracking for short-axis echo-planar myocardial perfusion imaging. *Medical Image Analysis*, **1998**, 2, 285-302	15.4	27
380	Heterogeneity in Brain Microstructural Development Following Preterm Birth. *Cerebral Cortex*, **2020**, 30, 4800-4810	5.1	27
379	Ventricular remodeling in preterm infants: computational cardiac magnetic resonance atlasing shows significant early remodeling of the left ventricle. *Pediatric Research*, **2019**, 85, 807-815	3.2	26
378	Geodesic information flows. *Lecture Notes in Computer Science*, **2012**, 15, 262-70	0.9	26
377	Genetic and functional insights into the fractal structure of the heart. *Nature*, **2020**, 584, 589-594	50.4	26
376	Brain lesion segmentation through image synthesis and outlier detection. *NeuroImage: Clinical*, **2017**, 16, 643-658	5.3	25
375	Robustness of automated hippocampal volumetry across magnetic resonance field strengths and repeat images. *Alzheimer's and Dementia*, **2014**, 10, 430-438.e2	1.2	25
374	Fast Fully Automatic Segmentation of the Human Placenta from Motion Corrupted MRI. *Lecture Notes in Computer Science*, **2016**, 589-597	0.9	25
373	Predicting Slice-to-Volume Transformation in Presence of Arbitrary Subject Motion. *Lecture Notes in Computer Science*, **2017**, 296-304	0.9	25
372	Learning Interpretable Anatomical Features Through Deep Generative Models: Application to Cardiac Remodeling. *Lecture Notes in Computer Science*, **2018**, 464-471	0.9	25
371	Joint Spectral Decomposition for the Parcellation of the Human Cerebral Cortex Using Resting-State fMRI. *Lecture Notes in Computer Science*, **2015**, 24, 85-97	0.9	24
370	Analysis of myocardial motion in tagged MR images using nonrigid image registration **2002**,		24
369	Testing the sensitivity of Tract-Based Spatial Statistics to simulated treatment effects in preterm neonates. *PLoS ONE*, **2013**, 8, e67706	3.7	24
368	Manifold Learning for Medical Image Registration, Segmentation, and Classification. *Advances in Bioinformatics and Biomedical Engineering Book Series*, **2012**, 351-372	0.4	24
367	Five-class differential diagnostics of neurodegenerative diseases using random undersampling boosting. *NeuroImage: Clinical*, **2017**, 15, 613-624	5.3	23

366	Hierarchical manifold learning for regional image analysis. *IEEE Transactions on Medical Imaging*, **2014**, 33, 444-61	11.7	23
365	Analysis of serial magnetic resonance images of mouse brains using image registration. *NeuroImage* , **2009**, 44, 692-700	7.9	23
364	Nonrigid Registration. *Biomedical Engineering Series*, **2001**, 281-301		23
363	A population-based phenome-wide association study of cardiac and aortic structure and function. *Nature Medicine*, **2020**, 26, 1654-1662	50.5	23
362	Independent Left Ventricular Morphometric Atlases Show Consistent Relationships with Cardiovascular Risk Factors: A UK Biobank Study. *Scientific Reports*, **2019**, 9, 1130	4.9	23
361	Computational anatomy for multi-organ analysis in medical imaging: A review. *Medical Image Analysis*, **2019**, 56, 44-67	15.4	22
360	Cardiac Rhythm Device Identification Using Neural Networks. *JACC: Clinical Electrophysiology*, **2019**, 5, 576-586	4.6	22
359	Three-dimensional cardiovascular imaging-genetics: a mass univariate framework. *Bioinformatics*, **2018**, 34, 97-103	7.2	22
358	PVR: Patch-to-Volume Reconstruction for Large Area Motion Correction of Fetal MRI. *IEEE Transactions on Medical Imaging*, **2017**, 36, 2031-2044	11.7	22
357	Groupwise combined segmentation and registration for atlas construction **2007**, 10, 532-40		22
356	Generalised overlap measures for assessment of pairwise and groupwise image registration and segmentation. *Lecture Notes in Computer Science*, **2005**, 8, 99-106	0.9	22
355	Multiple Landmark Detection Using Multi-agent Reinforcement Learning. *Lecture Notes in Computer Science*, **2019**, 262-270	0.9	22
354	Geodesic patch-based segmentation. *Lecture Notes in Computer Science*, **2014**, 17, 666-73	0.9	22
353	Weakly Supervised Estimation of Shadow Confidence Maps in Fetal Ultrasound Imaging. *IEEE Transactions on Medical Imaging*, **2019**, 38, 2755-2767	11.7	21
352	Data-Driven Differential Diagnosis of Dementia Using Multiclass Disease State Index Classifier. *Frontiers in Aging Neuroscience*, **2018**, 10, 111	5.3	21
351	Development of the Corticospinal and Callosal Tracts from Extremely Premature Birth up to 2 Years of Age. *PLoS ONE*, **2015**, 10, e0125681	3.7	21
350	A multivariate statistical analysis of the developing human brain in preterm infants. *Image and Vision Computing*, **2007**, 25, 981-994	3.7	21
349	Unbiased construction of a temporally consistent morphological atlas of neonatal brain development		21

348	Automated Detection of Motion Artefacts in MR Imaging Using Decision Forests. *Journal of Medical Engineering*, **2017**, 2017, 4501647		20
347	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
346	Autoadaptive motion modelling for MR-based respiratory motion estimation. *Medical Image Analysis*, **2017**, 35, 83-100	15.4	20
345	4D Blood Flow Reconstruction Over the Entire Ventricle From Wall Motion and Blood Velocity Derived From Ultrasound Data. *IEEE Transactions on Medical Imaging*, **2015**, 34, 2298-308	11.7	20
344	Remodeling after acute myocardial infarction: mapping ventricular dilatation using three dimensional CMR image registration. *Journal of Cardiovascular Magnetic Resonance*, **2012**, 14, 41	6.9	20
343	Multivariate Statistical Differences of MRI Samples of the Human Brain. *Journal of Mathematical Imaging and Vision*, **2007**, 29, 95-106	1.6	20
342	Automatic View Planning with Multi-scale Deep Reinforcement Learning Agents. *Lecture Notes in Computer Science*, **2018**, 277-285	0.9	20
341	Fast Multiple Landmark Localisation Using a Patch-based Iterative Network. *Lecture Notes in Computer Science*, **2018**, 2018, 563-571	0.9	20
340	VS-Net: Variable Splitting Network for Accelerated Parallel MRI Reconstruction. *Lecture Notes in Computer Science*, **2019**, 713-722	0.9	20
339	Similarity metrics for groupwise non-rigid registration **2007**, 10, 544-52		20
338	Central versus Local Radiological Reading of Acute Computed Tomography Characteristics in Multi-Center Traumatic Brain Injury Research. *Journal of Neurotrauma*, **2019**, 36, 1080-1092	5.4	20
337	Rapid Automated Quantification of Cerebral Leukoaraiosis on CT Images: A Multicenter Validation Study. *Radiology*, **2018**, 288, 573-581	20.5	20
336	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
335	A Framework for Inter-Subject Prediction of Functional Connectivity From Structural Networks. *IEEE Transactions on Medical Imaging*, **2013**, 32, 2200-14	11.7	19
334	The PredictAD project: development of novel biomarkers and analysis software for early diagnosis of the Alzheimer's disease. *Interface Focus*, **2013**, 3, 20120072	3.9	19
333	Self-supervision with Superpixels: Training Few-Shot Medical Image Segmentation Without Annotation. *Lecture Notes in Computer Science*, **2020**, 762-780	0.9	19
332	A Framework for Detailed Objective Comparison of Non-rigid Registration Algorithms in Neuroimaging. *Lecture Notes in Computer Science*, **2004**, 679-686	0.9	19
331	Water-fat Dixon cardiac magnetic resonance fingerprinting. *Magnetic Resonance in Medicine*, **2020**, 83, 2107-2123	4.4	19

330	Supervoxel classification forests for estimating pairwise image correspondences. *Pattern Recognition*, **2017**, 63, 561-569	7.7	18
329	Fast calculation of digitally reconstructed radiographs using light fields **2003**,		18
328	The Developing Human Connectome Project: typical and disrupted perinatal functional connectivity. *Brain*, **2021**, 144, 2199-2213	11.2	18
327	Standard Plane Detection in 3D Fetal Ultrasound Using an Iterative Transformation Network. *Lecture Notes in Computer Science*, **2018**, 392-400	0.9	18
326	Multi-class brain segmentation using atlas propagation and EM-based refinement **2012**,		17
325	Human-level Performance On Automatic Head Biometrics In Fetal Ultrasound Using Fully Convolutional Neural Networks. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2018**, 2018, 714-717	0.9	17
324	Impact of a Clinical Decision Support Tool on Dementia Diagnostics in Memory Clinics: The PredictND Validation Study. *Current Alzheimer Research*, **2019**, 16, 91-101	3	16
323	Relationship between body composition and left ventricular geometry using three dimensional cardiovascular magnetic resonance. *Journal of Cardiovascular Magnetic Resonance*, **2016**, 18, 32	6.9	16
322	Cortical morphology at birth reflects spatiotemporal patterns of gene expression in the fetal human brain. *PLoS Biology*, **2020**, 18, e3000976	9.7	16
321	Learning Biomarker Models for Progression Estimation of Alzheimer's Disease. *PLoS ONE*, **2016**, 11, e0153040	3.7	16
320	Graph Saliency Maps Through Spectral Convolutional Networks: Application to Sex Classification with Brain Connectivity. *Lecture Notes in Computer Science*, **2018**, 3-13	0.9	16
319	Realistic Adversarial Data Augmentation for MR Image Segmentation. *Lecture Notes in Computer Science*, **2020**, 667-677	0.9	16
318	Evaluation of rigid and non-rigid motion compensation of cardiac perfusion MRI. *Lecture Notes in Computer Science*, **2008**, 11, 35-43	0.9	16
317	Simultaneous fine and coarse diffeomorphic registration: application to atrophy measurement in Alzheimer's disease. *Lecture Notes in Computer Science*, **2010**, 13, 610-7	0.9	16
316	Automatic Segmentation of Different Pathologies from Cardiac Cine MRI Using Registration and Multiple Component EM Estimation. *Lecture Notes in Computer Science*, **2011**, 163-170	0.9	16
315	A probabilistic framework to infer brain functional connectivity from anatomical connections. *Lecture Notes in Computer Science*, **2011**, 22, 296-307	0.9	16
314	Model-Based and Data-Driven Strategies in Medical Image Computing. *Proceedings of the IEEE*, **2020**, 108, 110-124	14.3	16
313	Fibrosis Microstructure Modulates Reentry in Non-ischemic Dilated Cardiomyopathy: Insights From Imaged Guided 2D Computational Modeling. *Frontiers in Physiology*, **2018**, 9, 1832	4.6	16

312	Understanding the need of ventricular pressure for the estimation of diastolic biomarkers. *Biomechanics and Modeling in Mechanobiology*, **2014**, 13, 747-57	3.8	15
311	Super-resolution reconstruction of cardiac MRI using coupled dictionary learning **2014**,		15
310	Medical Image Registration **2010**, 131-154		15
309	Motion corrected 3D reconstruction of the fetal thorax from prenatal MRI. *Lecture Notes in Computer Science*, **2014**, 17, 284-91	0.9	15
308	Tractography-Driven Groupwise Multi-scale Parcellation of the Cortex. *Lecture Notes in Computer Science*, **2015**, 24, 600-12	0.9	15
307	Fully Automated Segmentation-Based Respiratory Motion Correction of Multiplanar Cardiac Magnetic Resonance Images for Large-Scale Datasets. *Lecture Notes in Computer Science*, **2017**, 332-340	0.9	15
306	Brain Connectivity Measures Improve Modeling of Functional Outcome After Acute Ischemic Stroke. *Stroke*, **2019**, 50, 2761-2767	6.7	14
305	Impact of a clinical decision support tool on prediction of progression in early-stage dementia: a prospective validation study. *Alzheimer's Research and Therapy*, **2019**, 11, 25	9	14
304	Localisation of the brain in fetal MRI using bundled SIFT features. *Lecture Notes in Computer Science* , **2013**, 16, 582-9	0.9	14
303	Automatical vessel wall detection in intravascular coronary OCT **2011**,		14
302	Regional analysis of FDG-PET for use in the classification of Alzheimer'S Disease **2011**,		14
301	Manifold Alignment and Transfer Learning for Classification of Alzheimer Disease. *Lecture Notes in Computer Science*, **2014**, 77-84	0.9	14
300	Regression Forest-Based Atlas Localization and Direction Specific Atlas Generation for Pancreas Segmentation. *Lecture Notes in Computer Science*, **2016**, 556-563	0.9	14
299	An Automatic Data Assimilation Framework for Patient-Specific Myocardial Mechanical Parameter Estimation. *Lecture Notes in Computer Science*, **2011**, 392-400	0.9	14
298	Real-Time Prediction of Segmentation Quality. *Lecture Notes in Computer Science*, **2018**, 578-585	0.9	14
297	3D Fetal Skull Reconstruction from 2DUS via Deep Conditional Generative Networks. *Lecture Notes in Computer Science*, **2018**, 383-391	0.9	14
296	Large-scale Quality Control of Cardiac Imaging in Population Studies: Application to UK Biobank. *Scientific Reports*, **2020**, 10, 2408	4.9	13
295	Distortion Correction in Fetal EPI Using Non-Rigid Registration With a Laplacian Constraint. *IEEE Transactions on Medical Imaging*, **2018**, 37, 12-19	11.7	13

294	Automatic volumetry on MR brain images can support diagnostic decision making. *BMC Medical Imaging*, **2008**, 8, 9	2.9	13
293	Modelling the progression of Alzheimer's disease in MRI using generative adversarial networks **2018**,		13
292	Stochastic Deep Compressive Sensing for the Reconstruction of Diffusion Tensor Cardiac MRI. *Lecture Notes in Computer Science*, **2018**, 295-303	0.9	13
291	Deep Nested Level Sets: Fully Automated Segmentation of Cardiac MR Images in Patients with Pulmonary Hypertension. *Lecture Notes in Computer Science*, **2018**, 595-603	0.9	13
290	Automatic cortical segmentation in the developing brain. *Information Processing in Medical Imaging*, **2007**, 20, 257-69		13
289	Non-rigid reconstruction of the beating heart surface for minimally invasive cardiac surgery. *Lecture Notes in Computer Science*, **2009**, 12, 34-42	0.9	13
288	Statistical finite element model for bone shape and biomechanical properties. *Lecture Notes in Computer Science*, **2006**, 9, 405-11	0.9	13
287	Development of Microstructural and Morphological Cortical Profiles in the Neonatal Brain. *Cerebral Cortex*, **2020**, 30, 5767-5779	5.1	12
286	Improving ultrasound video classification: an evaluation of novel deep learning methods in echocardiography. *Journal of Medical Artificial Intelligence*, **2020**, 3,	1.6	12
285	Automatic MRI Quantifying Methods in Behavioral-Variant Frontotemporal Dementia Diagnosis. *Dementia and Geriatric Cognitive Disorders Extra*, **2018**, 8, 51-59	2.5	12
284	Pseudo-healthy Image Synthesis for White Matter Lesion Segmentation. *Lecture Notes in Computer Science*, **2016**, 87-96	0.9	12
283	Evaluating combinations of diagnostic tests to discriminate different dementia types. *Alzheimer's and Dementia: Diagnosis, Assessment and Disease Monitoring*, **2018**, 10, 509-518	5.2	12
282	Manifold Learning for Biomarker Discovery in MR Imaging. *Lecture Notes in Computer Science*, **2010**, 116-123	0.9	12
281	Using a Maximum Uncertainty LDA-Based Approach to Classify and Analyse MR Brain Images. *Lecture Notes in Computer Science*, **2004**, 291-300	0.9	12
280	Learning Shape Priors for Robust Cardiac MR Segmentation from Multi-view Images. *Lecture Notes in Computer Science*, **2019**, 523-531	0.9	12
279	Nonrigid image registration with subdivision lattices: application to cardiac MR image analysis **2007**, 10, 335-42		12
278	Random Forest-Based Manifold Learning for Classification of Imaging Data in Dementia. *Lecture Notes in Computer Science*, **2011**, 159-166	0.9	12
277	Explainable Anatomical Shape Analysis Through Deep Hierarchical Generative Models. *IEEE Transactions on Medical Imaging*, **2020**, 39, 2088-2099	11.7	12

276	Differences between Men and Women in Treatment and Outcome after Traumatic Brain Injury. *Journal of Neurotrauma*, **2021**, 38, 235-251	5.4	12
275	Multi-stage Biomarker Models for Progression Estimation in Alzheimer's Disease. *Lecture Notes in Computer Science*, **2015**, 24, 387-98	0.9	11
274	Automatic Quality Control of Cardiac MRI Segmentation in Large-Scale Population Imaging. *Lecture Notes in Computer Science*, **2017**, 720-727	0.9	11
273	A deformable model for the reconstruction of the neonatal cortex **2017**,		11
272	Automated measurement of local white matter lesion volume. *NeuroImage*, **2012**, 59, 3901-8	7.9	11
271	Software tool for improved prediction of Alzheimer's disease. *Neurodegenerative Diseases*, **2012**, 10, 149-52	2.3	11
270	Construction of a patient-specific atlas of the brain: Application to normal aging **2008**,		11
269	Beyond the g-factor limit in sensitivity encoding using joint histogram entropy. *Magnetic Resonance in Medicine*, **2006**, 55, 153-60	4.4	11
268	Patch-Based Segmentation without Registration: Application to Knee MRI. *Lecture Notes in Computer Science*, **2013**, 98-105	0.9	11
267	A Computational White Matter Atlas for Aging with Surface-Based Representation of Fasciculi. *Lecture Notes in Computer Science*, **2010**, 83-90	0.9	11
266	Groupwise simultaneous manifold alignment for high-resolution dynamic MR imaging of respiratory motion. *Lecture Notes in Computer Science*, **2013**, 23, 232-43	0.9	11
265	Bayesian Deep Learning for Accelerated MR Image Reconstruction. *Lecture Notes in Computer Science*, **2018**, 64-71	0.9	11
264	Cardiac MR Motion Artefact Correction from K-space Using Deep Learning-Based Reconstruction. *Lecture Notes in Computer Science*, **2018**, 21-29	0.9	11
263	Evaluating Imputation Techniques for Missing Data in ADNI: A Patient Classification Study. *Lecture Notes in Computer Science*, **2015**, 3-10	0.9	10
262	The relationship between lateral meniscus shape and joint contact parameters in the knee: a study using data from the Osteoarthritis Initiative. *Arthritis Research and Therapy*, **2014**, 16, R27	5.7	10
261	Patch-Based Evaluation of Image Segmentation **2014**,		10
260	T2* relaxometry of fetal brain at 1.5 Tesla using a motion tolerant method. *Magnetic Resonance in Medicine*, **2015**, 73, 1795-802	4.4	10
259	Automatic quantification of changes in bone in serial MR images of joints. *IEEE Transactions on Medical Imaging*, **2006**, 25, 1617-26	11.7	10

258	XMR guided cardiac electrophysiology study and radio frequency ablation **2004**, 5369, 10		10
257	k-t NEXT: Dynamic MR Image Reconstruction Exploiting Spatio-Temporal Correlations. *Lecture Notes in Computer Science*, **2019**, 505-513	0.9	10
256	Exploiting Motion for Deep Learning Reconstruction of Extremely-Undersampled Dynamic MRI. *Lecture Notes in Computer Science*, **2019**, 704-712	0.9	10
255	Application-driven MRI: joint reconstruction and segmentation from undersampled MRI data. *Lecture Notes in Computer Science*, **2014**, 17, 106-13	0.9	10
254	Metabolic pathways associated with right ventricular adaptation to pulmonary hypertension: 3D analysis of cardiac magnetic resonance imaging. *European Heart Journal Cardiovascular Imaging*, **2019**, 20, 668-676	4.1	10
253	Deep Learning Using K-Space Based Data Augmentation for Automated Cardiac MR Motion Artefact Detection. *Lecture Notes in Computer Science*, **2018**, 250-258	0.9	10
252	Joint Motion Estimation and Segmentation from Undersampled Cardiac MR Image. *Lecture Notes in Computer Science*, **2018**, 55-63	0.9	10
251	Pathological Computed Tomography Features Associated With Adverse Outcomes After Mild Traumatic Brain Injury: A TRACK-TBI Study With External Validation in CENTER-TBI. *JAMA Neurology* , **2021**, 78, 1137-1148	17.2	10
250	Spatio-temporal Alignment of 4D Cardiac MR Images. *Lecture Notes in Computer Science*, **2003**, 205-214	0.9	10
249	Multi-atlas Segmentation as a Graph Labelling Problem: Application to Partially Annotated Atlas Data. *Lecture Notes in Computer Science*, **2015**, 24, 221-32	0.9	9
248	Self-Aligning Manifolds for Matching Disparate Medical Image Datasets. *Lecture Notes in Computer Science*, **2015**, 24, 363-74	0.9	9
247	Identification of Cerebral Small Vessel Disease Using Multiple Instance Learning. *Lecture Notes in Computer Science*, **2015**, 523-530	0.9	9
246	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
245	A large margin algorithm for automated segmentation of white matter hyperintensity. *Pattern Recognition*, **2018**, 77, 150-159	7.7	9
244	Deep learning with ultrasound physics for fetal skull segmentation **2018**,		9
243	Multi-channel MRI segmentation of eye structures and tumors using patient-specific features. *PLoS ONE*, **2017**, 12, e0173900	3.7	9
242	In-utero three dimension high resolution fetal brain diffusion tensor imaging **2007**, 10, 18-26		9
241	Detection and Correction of Cardiac MRI Motion Artefacts During Reconstruction from k-space. *Lecture Notes in Computer Science*, **2019**, 695-703	0.9	9

240	Spatio-Temporal Free-Form Registration of Cardiac MR Image Sequences. *Lecture Notes in Computer Science*, **2004**, 911-919	0.9	9
239	Dense Multi-frame Optic Flow for Non-rigid Objects Using Subspace Constraints. *Lecture Notes in Computer Science*, **2011**, 460-473	0.9	9
238	Hierarchical manifold learning. *Lecture Notes in Computer Science*, **2012**, 15, 512-9	0.9	9
237	Tracheal intubation in traumatic brain injury: a multicentre prospective observational study. *British Journal of Anaesthesia*, **2020**, 125, 505-517	5.4	9
236	Systematic evaluation of iterative deep neural networks for fast parallel MRI reconstruction with sensitivity-weighted coil combination. *Magnetic Resonance in Medicine*, **2021**, 86, 1859-1872	4.4	9
235	Medical imaging deep learning with differential privacy. *Scientific Reports*, **2021**, 11, 13524	4.9	9
234	Cardiac MR Segmentation from Undersampled k-space Using Deep Latent Representation Learning. *Lecture Notes in Computer Science*, **2018**, 259-267	0.9	9
233	Nonlinear Graph Fusion for Multi-modal Classification of Alzheimer□s Disease. *Lecture Notes in Computer Science*, **2015**, 77-84	0.9	8
232	Modeling of the bony pelvis from MRI using a multi-atlas AE-SDM for registration and tracking in image-guided robotic prostatectomy. *Computerized Medical Imaging and Graphics*, **2013**, 37, 183-94	7.6	8
231	Learning and combining image neighborhoods using random forests for neonatal brain disease classification. *Medical Image Analysis*, **2017**, 42, 189-199	15.4	8
230	Segmentation of cardiac MR and CT image sequences using model-based registration of a 4D statistical model **2007**,		8
229	AI-Based Reconstruction for Fast MRI□A Systematic Review and Meta-Analysis. *Proceedings of the IEEE*, **2022**, 110, 224-245	14.3	8
228	Interpretable Deep Models for Cardiac Resynchronisation Therapy Response Prediction. *Lecture Notes in Computer Science*, **2020**, 2020, 284-293	0.9	8
227	Multivariate statistical analysis of whole brain structural networks obtained using probabilistic tractography. *Lecture Notes in Computer Science*, **2008**, 11, 486-93	0.9	8
226	Spatially Aware Patch-Based Segmentation (SAPS): An Alternative Patch-Based Segmentation Framework. *Lecture Notes in Computer Science*, **2013**, 93-103	0.9	8
225	The Developing Human Connectome Project: typical and disrupted perinatal functional connectivity		8
224	A data-driven approach to optimising the encoding for multi-shell diffusion MRI with application to neonatal imaging. *NMR in Biomedicine*, **2020**, 33, e4348	4.4	8
223	Global Characterisation of Coagulopathy in Isolated Traumatic Brain Injury (iTBI): A CENTER-TBI Analysis. *Neurocritical Care*, **2021**, 35, 184-196	3.3	8

222	Mutual Information-Based Disentangled Neural Networks for Classifying Unseen Categories in Different Domains: Application to Fetal Ultrasound Imaging. *IEEE Transactions on Medical Imaging*, **2021**, 40, 722-734	11.7	8
221	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
220	LSTM Spatial Co-transformer Networks for Registration of 3D Fetal US and MR Brain Images. *Lecture Notes in Computer Science*, **2018**, 149-159	0.9	8
219	Multi-Atlas Segmentation Using Partially Annotated Data: Methods and Annotation Strategies. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2018**, 40, 1683-1696	13.3	7
218	A new automated system to identify a consistent sampling position to make tissue Doppler and transmitral Doppler measurements of E, E' and E/E'. *International Journal of Cardiology*, **2012**, 155, 394-9	3.2	7
217	Inference of functional connectivity from structural brain connectivity **2010**,		7
216	Computing CNN Loss and Gradients for Pose Estimation with Riemannian Geometry. *Lecture Notes in Computer Science*, **2018**, 756-764	0.9	7
215	Intelligent Image Synthesis to Attack a Segmentation CNN Using Adversarial Learning. *Lecture Notes in Computer Science*, **2019**, 90-99	0.9	7
214	Construction of a 4D Brain Atlas and Growth Model Using Diffeomorphic Registration. *Lecture Notes in Computer Science*, **2015**, 27-37	0.9	7
213	Multi-Level Parcellation of the Cerebral Cortex Using Resting-State fMRI. *Lecture Notes in Computer Science*, **2015**, 47-54	0.9	7
212	A Robust Mosaicing Method with Super-Resolution for Optical Medical Images. *Lecture Notes in Computer Science*, **2010**, 373-382	0.9	7
211	Discriminating electrocardiographic responses to His-bundle pacing using machine learning. *Cardiovascular Digital Health Journal*, **2020**, 1, 11-20	2	7
210	A robust similarity measure for volumetric image registration with outliers. *Image and Vision Computing*, **2016**, 52, 97-113	3.7	6
209	Coronary centerline extraction based on ostium detection and model-guided directional minimal path **2014**,		6
208	Graph-Based Label Propagation in Fetal Brain MR Images. *Lecture Notes in Computer Science*, **2014**, 9-16	0.9	6
207	LISA: Longitudinal image registration via spatio-temporal atlases **2012**,		6
206	Tracking developmental changes in subcortical structures of the preterm brain using multi-modal MRI **2011**,		6
205	**2011**,		6

204	**2011**,		6
203	Explaining Outcome Differences between Men and Women following Mild Traumatic Brain Injury. *Journal of Neurotrauma*, **2021**, 38, 3315-3331	5.4	6
202	A novel algorithm for heart motion analysis based on geometric constraints. *Lecture Notes in Computer Science*, **2008**, 11, 720-8	0.9	6
201	Ultrasound Video Summarization Using Deep Reinforcement Learning. *Lecture Notes in Computer Science*, **2020**, 483-492	0.9	6
200	Image-Level Harmonization of Multi-site Data Using Image-and-Spatial Transformer Networks. *Lecture Notes in Computer Science*, **2020**, 710-719	0.9	6
199	Flexible Reconstruction and Correction of Unpredictable Motion from Stacks of 2D Images. *Lecture Notes in Computer Science*, **2015**, 555-562	0.9	6
198	Prospective Identification of CRT Super Responders Using a Motion Atlas and Random Projection Ensemble Learning. *Lecture Notes in Computer Science*, **2015**, 493-500	0.9	6
197	GraMPa: Graph-Based Multi-modal Parcellation of the Cortex Using Fusion Moves. *Lecture Notes in Computer Science*, **2016**, 148-156	0.9	6
196	Simulation of the Electromechanical Activity of the Heart Using XMR Interventional Imaging. *Lecture Notes in Computer Science*, **2004**, 786-794	0.9	6
195	Automatic Segmentation of Left Atrial Scar from Delayed-Enhancement Magnetic Resonance Imaging. *Lecture Notes in Computer Science*, **2011**, 63-70	0.9	6
194	Multiple instance learning for classification of dementia in brain MRI. *Lecture Notes in Computer Science*, **2013**, 16, 599-606	0.9	6
193	Model-guided directional minimal path for fully automatic extraction of coronary centerlines from cardiac CTA. *Lecture Notes in Computer Science*, **2013**, 16, 542-9	0.9	6
192	Cooperative Training and Latent Space Data Augmentation for Robust Medical Image Segmentation. *Lecture Notes in Computer Science*, **2021**, 149-159	0.9	6
191	Scar shape analysis and simulated electrical instabilities in a non-ischemic dilated cardiomyopathy patient cohort. *PLoS Computational Biology*, **2019**, 15, e1007421	5	5
190	3D High-Resolution Cardiac Segmentation Reconstruction From 2D Views Using Conditional Variational Autoencoders **2019**,		5
189	Myocardial strain computed at multiple spatial scales from tagged magnetic resonance imaging: Estimating cardiac biomarkers for CRT patients. *Medical Image Analysis*, **2018**, 43, 169-185	15.4	5
188	Sex and regional differences in myocardial plasticity in aortic stenosis are revealed by 3D model machine learning. *European Heart Journal Cardiovascular Imaging*, **2020**, 21, 417-427	4.1	5
187	A flexible graphical model for multi-modal parcellation of the cortex. *NeuroImage*, **2017**, 162, 226-248	7.9	5

186	Registration and Segmentation in Medical Imaging. *Studies in Computational Intelligence*, **2014**, 137-156	0.8	5
185	Multi-organ segmentation from 3D abdominal CT images using patient-specific weighted-probabilistic atlas **2013**,		5
184	Segmentation of subcortical structures and the hippocampus in brain MRI using graph-cuts and subject-specific a-priori information **2009**,		5
183	Manifold learning combining imaging with non-imaging information **2011**,		5
182	Augmented reality image guidance for minimally invasive coronary artery bypass **2008**,		5
181	3D/4D Cardiac Segmentation Using Active Appearance Models, Non-rigid Registration, and the Insight Toolkit. *Lecture Notes in Computer Science*, **2004**, 419-426	0.9	5
180	Deep Generative Model-Based Quality Control for Cardiac MRI Segmentation. *Lecture Notes in Computer Science*, **2020**, 88-97	0.9	5
179	Multi-atlas spectral PatchMatch: application to cardiac image segmentation. *Lecture Notes in Computer Science*, **2014**, 17, 348-55	0.9	5
178	Fast Reconstruction of Accelerated Dynamic MRI Using Manifold Kernel Regression. *Lecture Notes in Computer Science*, **2015**, 510-518	0.9	5
177	Laplacian Eigenmaps manifold learning for landmark localization in brain MR images. *Lecture Notes in Computer Science*, **2011**, 14, 566-73	0.9	5
176	Unsupervised Learning of Shape Complexity: Application to Brain Development. *Lecture Notes in Computer Science*, **2012**, 88-99	0.9	5
175	The developing Human Connectome Project (dHCP) automated resting-state functional processing framework for newborn infants		5
174	Limited One-time Sampling Irregularity Map (LOTS-IM) for Automatic Unsupervised Assessment of White Matter Hyperintensities and Multiple Sclerosis Lesions in Structural Brain Magnetic Resonance Images. *Computerized Medical Imaging and Graphics*, **2020**, 79, 101685	7.6	5
173	Predictors of Access to Rehabilitation in the Year Following Traumatic Brain Injury: A European Prospective and Multicenter Study. *Neurorehabilitation and Neural Repair*, **2020**, 34, 814-830	4.7	5
172	Complementary time-frequency domain networks for dynamic parallel MR image reconstruction. *Magnetic Resonance in Medicine*, **2021**, 86, 3274-3291	4.4	5
171	A Comprehensive Approach for Learning-Based Fully-Automated Inter-slice Motion Correction for Short-Axis Cine Cardiac MR Image Stacks. *Lecture Notes in Computer Science*, **2018**, 268-276	0.9	5
170	Automatic Shadow Detection in 2D Ultrasound Images. *Lecture Notes in Computer Science*, **2018**, 66-75	0.9	5
169	Supervoxel Classification Forests for Estimating Pairwise Image Correspondences. *Lecture Notes in Computer Science*, **2015**, 94-101	0.9	4

168	Parental age effects on neonatal white matter development. *NeuroImage: Clinical*, **2020**, 27, 102283	5.3	4
167	A Weighted Mirror Descent Algorithm for Nonsmooth Convex Optimization Problem. *Journal of Optimization Theory and Applications*, **2016**, 170, 900-915	1.6	4
166	An exploration of task based fMRI in neonates using echo-shifting to allow acquisition at longer TE without loss of temporal efficiency. *NeuroImage*, **2016**, 127, 298-306	7.9	4
165	Fast and accurate global geodesic registrations using knee MRI from the Osteoarthritis Initiative **2012**,		4
164	Automatic segmentation of pediatric brain MRIs using a maximum probability pediatric atlas **2012**,		4
163	Atlas selection strategy for automatic segmentation of pediatric brain MRIs into 83 ROIs **2010**,		4
162	Improved generation of probabilistic atlases for the expectation maximization classification **2011**,		4
161	Landmark localisation in brain MR images using feature point descriptors based on 3D local self-similarities **2012**,		4
160	Nonrigid free-form registration using landmark-based statistical deformation models **2012**,		4
159	Automatic detection of coronary stent struts in intravascular OCT imaging **2012**,		4
158	3D Statistical Shape Modeling of Long Bones. *Lecture Notes in Computer Science*, **2006**, 306-314	0.9	4
157	Detecting regional changes in myocardial contraction patterns using MRI **2004**,		4
156	A Systematic Comparison of Encrypted Machine Learning Solutions for Image Classification **2020**,		4
155	Deep Learning for Cardiac Motion Estimation: Supervised vs. Unsupervised Training. *Lecture Notes in Computer Science*, **2020**, 186-194	0.9	4
154	Biomechanics-Informed Neural Networks for Myocardial Motion Tracking in MRI. *Lecture Notes in Computer Science*, **2020**, 296-306	0.9	4
153	Communicative Reinforcement Learning Agents for Landmark Detection in Brain Images. *Lecture Notes in Computer Science*, **2020**, 177-186	0.9	4
152	Structure Specific Atlas Generation and Its Application to Pancreas Segmentation from Contrasted Abdominal CT Volumes. *Lecture Notes in Computer Science*, **2016**, 47-56	0.9	4
151	Non-rigid Spatio-Temporal Alignment of 4D Cardiac MR Images. *Lecture Notes in Computer Science*, **2003**, 191-200	0.9	4

150	A Multi-image Graph Cut Approach for Cardiac Image Segmentation and Uncertainty Estimation. *Lecture Notes in Computer Science*, **2012**, 178-187	0.9	4
149	Informed consent procedures in patients with an acute inability to provide informed consent: Policy and practice in the CENTER-TBI study. *Journal of Critical Care*, **2020**, 59, 6-15	4	4
148	Limited One-time Sampling Irregularity Map (LOTS-IM): Automatic Unsupervised Quantitative Assessment of White Matter Hyperintensities in Structural Brain Magnetic Resonance Images		4
147	Prognostic Validation of the NINDS Common Data Elements for the Radiologic Reporting of Acute Traumatic Brain Injuries: A CENTER-TBI Study. *Journal of Neurotrauma*, **2020**, 37, 1269-1282	5.4	4
146	Prediction of Global Functional Outcome and Post-Concussive Symptoms after Mild Traumatic Brain Injury: External Validation of Prognostic Models in the Collaborative European NeuroTrauma Effectiveness Research in Traumatic Brain Injury (CENTER-TBI) Study. *Journal of Neurotrauma*, **2021**, 38, 196-209	5.4	4
145	Volume Change in Frontal Cholinergic Structures After Traumatic Brain Injury and Cognitive Outcome. *Frontiers in Neurology*, **2020**, 11, 832	4.1	4
144	Missing Data in Prediction Research: A Five-Step Approach for Multiple Imputation, Illustrated in the CENTER-TBI Study. *Journal of Neurotrauma*, **2021**, 38, 1842-1857	5.4	4
143	Regional Differences in End-Diastolic Volumes between 3D Echo and CMR in HLHS Patients. *Frontiers in Pediatrics*, **2016**, 4, 133	3.4	4
142	Construction of a neonatal cortical surface atlas using multimodal surface matching **2016**,		4
141	Automated analysis and detection of abnormalities in transaxial anatomical cardiovascular magnetic resonance images: a proof of concept study with potential to optimize image acquisition. *International Journal of Cardiovascular Imaging*, **2021**, 37, 1033-1042	2.5	4
140	T1, T2, and Fat Fraction Cardiac MR Fingerprinting: Preliminary Clinical Evaluation. *Journal of Magnetic Resonance Imaging*, **2021**, 53, 1253-1265	5.6	4
139	Adversarial interference and its mitigations in privacy-preserving collaborative machine learning. *Nature Machine Intelligence*, **2021**, 3, 749-758	22.5	4
138	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
137	Learning a Global Descriptor of Cardiac Motion from a Large Cohort of 1000+ Normal Subjects. *Lecture Notes in Computer Science*, **2015**, 3-11	0.9	3
136	Towards Left Ventricular Scar Localisation Using Local Motion Descriptors. *Lecture Notes in Computer Science*, **2016**, 30-39	0.9	3
135	Exploring heritability of functional brain networks with inexact graph matching **2017**,		3
134	Consistent and robust 4D whole-brain segmentation: Application to traumatic brain injury **2014**,		3
133	Landmark detection and coupled patch registration for cardiac motion tracking **2013**,		3

132	Automatic extraction of the left atrial anatomy from MR for atrial fibrillation ablation **2009**,		3
131	Robust segmentation of brain structures in MRI **2009**,		3
130	4D motion modeling of the coronary arteries from CT images for robotic assisted minimally invasive surgery **2009**,		3
129	Parameterizing reconfigurable designs for image warping **2002**,		3
128	Self-supervised Learning for Few-shot Medical Image Segmentation.. *IEEE Transactions on Medical Imaging*, **2022**, PP,	11.7	3
127	Representation Disentanglement for Multi-task Learning with Application to Fetal Ultrasound. *Lecture Notes in Computer Science*, **2019**, 47-55	0.9	3
126	Going Deeper into Cardiac Motion Analysis to Model Fine Spatio-Temporal Features. *Communications in Computer and Information Science*, **2020**, 294-306	0.3	3
125	Patch-Based Brain Age Estimation from MR Images. *Lecture Notes in Computer Science*, **2020**, 98-107	0.9	3
124	Fully Convolutional Networks in Medical Imaging: Applications to Image Enhancement and Recognition. *Advances in Computer Vision and Pattern Recognition*, **2017**, 159-179	1.1	3
123	Learning-Based Heart Coverage Estimation for Short-Axis Cine Cardiac MR Images. *Lecture Notes in Computer Science*, **2017**, 73-82	0.9	3
122	3D FCN Feature Driven Regression Forest-Based Pancreas Localization and Segmentation. *Lecture Notes in Computer Science*, **2017**, 222-230	0.9	3
121	Image Guidance for Robotic Minimally Invasive Coronary Artery Bypass. *Lecture Notes in Computer Science*, **2008**, 202-209	0.9	3
120	Sample sufficiency and number of modes to retain in statistical shape modelling. *Lecture Notes in Computer Science*, **2008**, 11, 425-33	0.9	3
119	A Framework Combining Multi-sequence MRI for Fully Automated Quantitative Analysis of Cardiac Global And Regional Functions. *Lecture Notes in Computer Science*, **2011**, 367-374	0.9	3
118	Prediction of Clinical Information from Cardiac MRI Using Manifold Learning. *Lecture Notes in Computer Science*, **2015**, 91-98	0.9	3
117	Eidolon: Visualization and Computational Framework for Multi-modal Biomedical Data Analysis. *Lecture Notes in Computer Science*, **2016**, 425-437	0.9	3
116	Solving MRF Minimization by Mirror Descent. *Lecture Notes in Computer Science*, **2012**, 587-598	0.9	3
115	Phenotyping the Preterm Brain: Characterizing Individual Deviations From Normative Volumetric Development in Two Large Infant Cohorts. *Cerebral Cortex*, **2021**, 31, 3665-3677	5.1	3

114	Late-Gadolinium Enhancement Interface Area and Electrophysiological Simulations Predict Arrhythmic Events in Patients With Nonischemic Dilated Cardiomyopathy. *JACC: Clinical Electrophysiology*, **2021**, 7, 238-249	4.6	3
113	Modelling Cardiac Motion via Spatio-Temporal Graph Convolutional Networks to Boost the Diagnosis of Heart Conditions. *Lecture Notes in Computer Science*, **2021**, 56-65	0.9	3
112	Learning a Model-Driven Variational Network for Deformable Image Registration. *IEEE Transactions on Medical Imaging*, **2021**, PP,	11.7	3
111	Combining Deep Learning and Shape Priors for Bi-Ventricular Segmentation of Volumetric Cardiac Magnetic Resonance Images. *Lecture Notes in Computer Science*, **2018**, 258-267	0.9	3
110	Incidental findings on brain MR imaging of asymptomatic term neonates in the Developing Human Connectome Project. *EClinicalMedicine*, **2021**, 38, 100984	11.3	3
109	Phenotypic Expression and Outcomes in Individuals With Rare Genetic Variants of Hypertrophic Cardiomyopathy. *Journal of the American College of Cardiology*, **2021**, 78, 1097-1110	15.1	3
108	Preterm birth alters the development of cortical microstructure and morphology at term-equivalent age. *NeuroImage*, **2021**, 243, 118488	7.9	3
107	A Multi-resolution Multi-model Method for Coronary Centerline Extraction Based on Minimal Path. *Lecture Notes in Computer Science*, **2016**, 320-328	0.9	2
106	Automatic quantification of CT images for traumatic brain injury **2014**,		2
105	Reproducible Large-Scale Neuroimaging Studies with the OpenMOLE Workflow Management System. *Frontiers in Neuroinformatics*, **2017**, 11, 21	3.9	2
104	Manifold Learning for Cardiac Modeling and Estimation Framework. *Lecture Notes in Computer Science*, **2015**, 284-294	0.9	2
103	Hippocampal atrophy in Alzheimer disease. *Neurodegenerative Disease Management*, **2012**, 2, 197-209	2.8	2
102	Automated quantification and analysis of mandibular asymmetry **2010**,		2
101	Automated quantification and analysis of facial asymmetry in children with arthritis in the temporomandibular joint **2011**,		2
100	Automatic segmentation and identification of solitary pulmonary nodules on follow-up CT scans based on local intensity structure analysis and non-rigid image registration **2011**,		2
99	Localised manifold learning for cardiac image analysis **2012**,		2
98	Automated localization of periventricular and subcortical white matter lesions **2007**,		2
97	A comparison of the tissue classification and the segmentation propagation techniques in MRI brain image segmentation **2005**,		2

96	Flimma: a federated and privacy-aware tool for differential gene expression analysis.. *Genome Biology*, **2021**, 22, 338	18.3	2
95	Effect of frailty on 6-month outcome after traumatic brain injury: a multicentre cohort study with external validation.. *Lancet Neurology, The*, **2022**, 21, 153-162	24.1	2
94	Geometric Deep Learning for Post-Menstrual Age Prediction Based on the Neonatal White Matter Cortical Surface. *Lecture Notes in Computer Science*, **2020**, 174-186	0.9	2
93	Respiratory Motion Correction for 2D Cine Cardiac MR Images using Probabilistic Edge Maps		2
92	Detecting and Comparing the Onset of Myocardial Activation and Regional Motion Changes in Tagged MR for XMR-Guided RF Ablation. *Lecture Notes in Computer Science*, **2005**, 348-358	0.9	2
91	Unsupervised Cross-domain Image Classification by Distance Metric Guided Feature Alignment. *Lecture Notes in Computer Science*, **2020**, 146-157	0.9	2
90	Boundary Mapping Through Manifold Learning for Connectivity-Based Cortical Parcellation. *Lecture Notes in Computer Science*, **2016**, 115-122	0.9	2
89	Joint Supervoxel Classification Forest for Weakly-Supervised Organ Segmentation. *Lecture Notes in Computer Science*, **2017**, 79-87	0.9	2
88	Tensor-based morphometry of fibrous structures with application to human brain white matter. *Lecture Notes in Computer Science*, **2009**, 12, 466-73	0.9	2
87	Nonrigid Registration and Template Matching for Coronary Motion Modeling from 4D CTA. *Lecture Notes in Computer Science*, **2010**, 210-221	0.9	2
86	Simultaneous Reconstruction of 4-D Myocardial Motion from Both Tagged and Untagged MR Images Using Nonrigid Image Registration. *Lecture Notes in Computer Science*, **2010**, 98-107	0.9	2
85	Coronary Motion Estimation from CTA Using Probability Atlas and Diffeomorphic Registration. *Lecture Notes in Computer Science*, **2010**, 78-87	0.9	2
84	Flow Analysis in Cardiac Chambers Combining Phase Contrast, 3D Tagged and Cine MRI. *Lecture Notes in Computer Science*, **2013**, 360-369	0.9	2
83	Beyond the AHA 17-Segment Model: Motion-Driven Parcellation of the Left Ventricle. *Lecture Notes in Computer Science*, **2016**, 13-20	0.9	2
82	Large Deformation Diffeomorphic Registration Using Fine and Coarse Strategies. *Lecture Notes in Computer Science*, **2010**, 186-197	0.9	2
81	Normalisation of neonatal brain network measures using stochastic approaches. *Lecture Notes in Computer Science*, **2013**, 16, 574-81	0.9	2
80	Reduced structural connectivity in cortico-striatal-thalamic network in neonates with congenital heart disease. *NeuroImage: Clinical*, **2020**, 28, 102423	5.3	2
79	Investigating altered brain development in infants with congenital heart disease using tensor-based morphometry. *Scientific Reports*, **2020**, 10, 14909	4.9	2

78	De Novo Radiomics Approach Using Image Augmentation and Features From T1 Mapping to Predict Gleason Scores in Prostate Cancer. *Investigative Radiology*, **2021**, 56, 661-668	10.1	2
77	Dynamic Spatio-Temporal Graph Convolutional Networks For Cardiac Motion Analysis **2021**,		2
76	Fast Fully Automatic Segmentation of the Severely Abnormal Human Right Ventricle from Cardiovascular Magnetic Resonance Images Using a Multi-Scale 3D Convolutional Neural Network **2016**,		2
75	Discrete Optimisation for Group-Wise Cortical Surface Atlasing **2016**,		2
74	Evaluating severity of white matter lesions from computed tomography images with convolutional neural network. *Neuroradiology*, **2020**, 62, 1257-1263	3.2	2
73	Frequency of fatigue and its changes in the first 6 months after traumatic brain injury: results from the CENTER-TBI study. *Journal of Neurology*, **2021**, 268, 61-73	5.5	2
72	Evaluation of the Robustness of Learned MR Image Reconstruction to Systematic Deviations Between Training and Test Data for the Models from the fastMRI Challenge. *Lecture Notes in Computer Science*, **2021**, 25-34	0.9	2
71	Multiscale Graph Convolutional Networks for Cardiac Motion Analysis. *Lecture Notes in Computer Science*, **2021**, 264-272	0.9	2
70	Joint Motion Correction and Super Resolution for Cardiac Segmentation via Latent Optimisation. *Lecture Notes in Computer Science*, **2021**, 14-24	0.9	2
69	Primary versus early secondary referral to a specialized neurotrauma center in patients with moderate/severe traumatic brain injury: a CENTER TBI study. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*, **2021**, 29, 113	3.6	2
68	Deformation Based Morphometry Analysis of Serial Magnetic Resonance Images of Mouse Brains. *Lecture Notes in Computer Science*, **2006**, 58-65	0.9	2
67	Precision measurement of cardiac structure and function in cardiovascular magnetic resonance using machine learning.. *Journal of Cardiovascular Magnetic Resonance*, **2022**, 24, 16	6.9	2
66	Serum metabolome associated with severity of acute traumatic brain injury.. *Nature Communications*, **2022**, 13, 2545	17.4	2
65	Predicting age and clinical risk from the neonatal connectome.. *NeuroImage*, **2022**, 119319	7.9	2
64	Sparse Data-Driven Learning for Effective and Efficient Biomedical Image Segmentation. *Annual Review of Biomedical Engineering*, **2020**, 22, 127-153	12	1
63	Multi-atlas based neointima segmentation in intravascular coronary OCT **2013**,		1
62	Multi-atlas propagation via a manifold graph on a database of both labeled and unlabeled images **2014**,		1
61	Multi-scale feature learning on pixels and super-pixels for seminal vesicles MRI segmentation **2014**,		1

60	Extended boundary shift integral **2014**,		1
59	Improving whole-brain segmentations through incorporating regional image intensity statistics **2013**,		1
58	Coronary artery motion modeling from 3D cardiac CT sequences using template matching and graph search **2010**,		1
57	Construction of a dynamic 4D probabilistic atlas for the developing brain **2010**,		1
56	Automatic segmentation of brain MRIs and mapping neuroanatomy across the human lifespan **2009**,		1
55	Hippocampal atrophy rate using an expectation maximization classifier with a disease-specific prior **2012**,		1
54	Robust Global Registration through Geodesic Paths on an Empirical Manifold with Knee MRI from the Osteoarthritis Initiative (OAI). *Lecture Notes in Computer Science*, **2012**, 1-10	0.9	1
53	Atlas-based registration parameters in segmenting sub-cortical regions from brain MRI-images **2009**,		1
52	Extracting Discriminative Information from Medical Images: A Multivariate Linear Approach **2006**,		1
51	Automated camera calibration for image-guided surgery using intensity-based registration **2002**, 4681, 463		1
50	Machine learning in knee arthroplasty: specific data are key-a systematic review.. *Knee Surgery, Sports Traumatology, Arthroscopy*, **2022**, 30, 376	5.5	1
49	sPLINK: a hybrid federated tool as a robust alternative to meta-analysis in genome-wide association studies.. *Genome Biology*, **2022**, 23, 32	18.3	1
48	Spectral clustering as a diagnostic tool in cross-sectional MR studies: an application to mild dementia. *Lecture Notes in Computer Science*, **2008**, 11, 442-9	0.9	1
47	Spatial Semantic-Preserving Latent Space Learning for Accelerated DWI Diagnostic Report Generation. *Lecture Notes in Computer Science*, **2020**, 333-342	0.9	1
46	Assessing the Impact of Blood Pressure on Cardiac Function Using Interpretable Biomarkers and Variational Autoencoders. *Lecture Notes in Computer Science*, **2020**, 22-30	0.9	1
45	Automated Detection of Congenital Heart Disease in Fetal Ultrasound Screening. *Lecture Notes in Computer Science*, **2020**, 243-252	0.9	1
44	A Semi-supervised Large Margin Algorithm for White Matter Hyperintensity Segmentation. *Lecture Notes in Computer Science*, **2016**, 104-112	0.9	1
43	Coronary Motion Modelling for Augmented Reality Guidance of Endoscopic Coronary Artery Bypass. *Lecture Notes in Computer Science*, **2008**, 197-202	0.9	1

42	Genomic analysis reveals a functional role for myocardial trabeculae in adults		1
41	A data-driven approach to optimising the encoding for multi-shell diffusion MRI with application to neonatal imaging		1
40	Differential Dementia Diagnosis on Incomplete Data with Latent Trees. *Lecture Notes in Computer Science*, **2016**, 44-52	0.9	1
39	Multimodal Surface Matching with Higher-Order Smoothness Constraints?		1
38	Validation of a Novel Method for the Automatic Segmentation of Left Atrial Scar from Delayed-Enhancement Magnetic Resonance. *Lecture Notes in Computer Science*, **2012**, 254-262	0.9	1
37	Relating Brain Functional Connectivity to Anatomical Connections: Model Selection. *Lecture Notes in Computer Science*, **2012**, 178-185	0.9	1
36	Real-Time Catheter Extraction from 2D X-Ray Fluoroscopic and 3D Echocardiographic Images for Cardiac Interventions. *Lecture Notes in Computer Science*, **2013**, 198-206	0.9	1
35	Genetic and environmental determinants of diastolic heart function		1
34	CAS-Net: Conditional Atlas Generation and Brain Segmentation for Fetal MRI. *Lecture Notes in Computer Science*, **2021**, 221-230	0.9	1
33	Efficient, high-performance semantic segmentation using multi-scale feature extraction. *PLoS ONE*, **2021**, 16, e0255397	3.7	1
32	Occurrence and timing of withdrawal of life-sustaining measures in traumatic brain injury patients: a CENTER-TBI study. *Intensive Care Medicine*, **2021**, 47, 1115-1129	14.5	1
31	AI for Doctors-A Course to Educate Medical Professionals in Artificial Intelligence for Medical Imaging. *Healthcare (Switzerland)*, **2021**, 9,	3.4	1
30	Detecting Hypo-plastic Left Heart Syndrome in Fetal Ultrasound via Disease-Specific Atlas Maps. *Lecture Notes in Computer Science*, **2021**, 207-217	0.9	1
29	Improving Phenotype Prediction Using Long-Range Spatio-Temporal Dynamics of Functional Connectivity. *Lecture Notes in Computer Science*, **2021**, 145-154	0.9	1
28	Reducing Textural Bias Improves Robustness of Deep Segmentation Models. *Lecture Notes in Computer Science*, **2021**, 294-304	0.9	1
27	Outcomes and phenotypic expression of rare variants in hypertrophic cardiomyopathy genes amongst UK Biobank participants		1
26	Fast Spatio-temporal Free-Form Registration of Cardiac MR Image Sequences. *Lecture Notes in Computer Science*, **2005**, 414-424	0.9	1
25	Concept of the Munich/Augsburg Consortium Precision in Mental Health for the German Center of Mental Health.. *Frontiers in Psychiatry*, **2022**, 13, 815718	5	1

24	Prediction of complications and surgery duration in primary TKA with high accuracy using machine learning with arthroplasty-specific data.. *Knee Surgery, Sports Traumatology, Arthroscopy*, **2022**, 1	5.5	1
23	Neonatal multi-modal cortical profiles predict 18-month developmental outcomes.. *Developmental Cognitive Neuroscience*, **2022**, 54, 101103	5.5	1
22	Effects of gestational age at birth on perinatal structural brain development in healthy term-born babies.. *Human Brain Mapping*, **2021**,	5.9	1
21	Privacy: An Axiomatic Approach. *Entropy*, **2022**, 24, 714	2.8	1
20	Neurocognitive correlates of probable posttraumatic stress disorder following traumatic brain injury. *Brain and Spine*, **2022**, 2, 100854		0
19	Questionnaires vs Interviews for the Assessment of Global Functional Outcomes After Traumatic Brain Injury. *JAMA Network Open*, **2021**, 4, e2134121	10.4	0
18	Transfer Learning for Brain Segmentation: Pre-task Selection and Data Limitations. *Communications in Computer and Information Science*, **2020**, 118-130	0.3	0
17	Can We Cluster ICU Treatment Strategies for Traumatic Brain Injury by Hospital Treatment Preferences?. *Neurocritical Care*, **2021**, 1	3.3	0
16	Extended Coagulation Profiling in Isolated Traumatic Brain Injury: A CENTER-TBI Analysis.. *Neurocritical Care*, **2021**, 1	3.3	0
15	Genetic and environmental determinants of diastolic heart function. **2022**, 1, 361-371		0
14	The developing brain structural and functional connectome fingerprint. *Developmental Cognitive Neuroscience*, **2022**, 55, 101117	5.5	0
13	Age-related craniofacial differences based on spatio-temporal face image atlases. *IET Image Processing*, **2019**, 13, 1561-1568	1.7	
12	Guest Editorial Special Issue on Mathematical Modeling in Biomedical Image Analysis. *IEEE Transactions on Medical Imaging*, **2007**, 26, 1133-1135	11.7	
11	Zen and the art of model adaptation: Low-utility-cost attack mitigations in collaborative machine learning. *Proceedings on Privacy Enhancing Technologies*, **2022**, 2022, 274-290	3.2	
10	Flexible Conditional Image Generation of Missing Data with Learned Mental Maps. *Lecture Notes in Computer Science*, **2019**, 139-150	0.9	
9	Learning and Combining Image Similarities for Neonatal Brain Population Studies. *Lecture Notes in Computer Science*, **2015**, 110-117	0.9	
8	Learning Optimal Spatial Scales for Cardiac Strain Analysis Using a Motion Atlas. *Lecture Notes in Computer Science*, **2017**, 57-65	0.9	
7	Gradient Projection Learning for Parametric Nonrigid Registration. *Lecture Notes in Computer Science*, **2012**, 226-233	0.9	

6	Automatic Cardiac Motion Tracking Using Both Untagged and 3D Tagged MR Images. *Lecture Notes in Computer Science*, **2012**, 45-54	0.9
5	Learning Correspondences in Knee MR Images from the Osteoarthritis Initiative. *Lecture Notes in Computer Science*, **2012**, 218-225	0.9
4	Artificial Intelligence in Medicine and Privacy Preservation **2021**, 1-14	
3	Transductive Image Segmentation: Self-training and Effect of Uncertainty Estimation. *Lecture Notes in Computer Science*, **2021**, 79-89	0.9
2	Artificial Intelligence in Medicine and Privacy Preservation **2022**, 145-158	
1	Artificial Intelligence-Based Image Reconstruction in Cardiac Magnetic Resonance. *Contemporary Medical Imaging*, **2022**, 139-147	0.1