Daniel C Alexander

List of Publications by Year
in descending order

273 papers	20,581 citations	17440 63 h-index	13770 129 g-index
307 all docs	307 docs citations	307 times ranked	15919 citing authors

#	Article	IF	Citations
1	NODDI: Practical in vivo neurite orientation dispersion and density imaging of the human brain. NeuroImage, 2012, 61, 1000-1016.	4.2	2,398
2	Image processing and Quality Control for the first 10,000 brain imaging datasets from UK Biobank. NeuroImage, 2018, 166, 400-424.	4.2	1,026
3	Evidence for Segregated and Integrative Connectivity Patterns in the Human Basal Ganglia. Journal of Neuroscience, 2008, 28, 7143-7152.	3.6	695
4	Orientationally invariant indices of axon diameter and density from diffusion MRI. NeuroImage, 2010, 52, 1374-1389.	4.2	629
5	Lateralization of ventral and dorsal auditory-language pathways in the human brain. NeuroImage, 2005, 24, 656-666.	4.2	458
6	Deformable registration of diffusion tensor MR images with explicit orientation optimization. Medical Image Analysis, 2006, 10, 764-785.	11.6	453
7	Accelerated Microstructure Imaging via Convex Optimization (AMICO) from diffusion MRI data. NeuroImage, 2015, 105, 32-44.	4.2	377
8	Hemispheric asymmetries in language-related pathways: A combined functional MRI and tractography study. NeuroImage, 2006, 32, 388-399.	4.2	373
9	Compartment models of the diffusion MR signal in brain white matter: A taxonomy and comparison. NeuroImage, 2012, 59, 2241-2254.	4.2	372
10	Four distinct trajectories of tau deposition identified in Alzheimerâ€™s disease. Nature Medicine, 2021, 27, 871-881.	30.7	354
11	Probabilistic anatomical connectivity derived from the microscopic persistent angular structure of cerebral tissue. Philosophical Transactions of the Royal Society B: Biological Sciences, 2005, 360, 893-902.	4.0	312
12	Deep gray matter volume loss drives disability worsening in multiple sclerosis. Annals of Neurology, 2018, 83, 210-222.	5.3	295
13	A general framework for experiment design in diffusion MRI and its application in measuring direct tissueâ€microstructure features. Magnetic Resonance in Medicine, 2008, 60, 439-448.	3.0	286
14	Multi-compartment microscopic diffusion imaging. NeuroImage, 2016, 139, 346-359.	4.2	280
15	Progression of regional grey matter atrophy in multiple sclerosis. Brain, 2018, 141, 1665-1677.	7.6	269
16	Persistent angular structure: new insights from diffusion magnetic resonance imaging data. Inverse Problems, 2003, 19, 1031-1046.	2.0	266
17	Imaging brain microstructure with diffusion MRI: practicality and applications. NMR in Biomedicine, 2019, 32, e3841.	2.8	266
18	Uncovering the heterogeneity and temporal complexity of neurodegenerative diseases with Subtype and Stage Inference. Nature Communications, 2018, 9, 4273.	12.8	263

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19	A data-driven model of biomarker changes in sporadic Alzheimer's disease. Brain, 2014, 137, 2564-2577.	7.6	243
20	Axon diameter mapping in the presence of orientation dispersion with diffusion MRI. NeuroImage, 2011, 56, 1301-1315.	4.2	240
21	Neurite dispersion: a new marker of multiple sclerosis spinal cord pathology?. Annals of Clinical and Translational Neurology, 2017, 4, 663-679.	3.7	238
22	Optimal imaging parameters for fiber-orientation estimation in diffusion MRI. NeuroImage, 2005, 27, 357-367.	4.2	226
23	Multipleâ€Fiber Reconstruction Algorithms for Diffusion MRI. Annals of the New York Academy of Sciences, 2005, 1064, 113-133.	3.8	221
24	Non-invasive mapping of corticofugal fibres from multiple motor areasâ€"relevance to stroke recovery. Brain, 2006, 129, 1844-1858.	7.6	218
25	Validation of in vitro probabilistic tractography. NeuroImage, 2007, 37, 1267-1277.	4.2	212
26	Spatial Normalization and Averaging of Diffusion Tensor MRI Data Sets. NeuroImage, 2002, 17, 592-617.	4.2	208
27	An ex vivo imaging pipeline for producing highâ€quality and highâ€resolution diffusionâ€weighted imaging datasets. Human Brain Mapping, 2011, 32, 544-563.	3.6	199
28	An event-based model for disease progression and its application in familial Alzheimer's disease and Huntington's disease. NeuroImage, 2012, 60, 1880-1889.	4.2	192
29	Quantitative mapping of the perâ€axon diffusion coefficients in brain white matter. Magnetic Resonance in Medicine, 2016, 75, 1752-1763.	3.0	190
30	Early development of structural networks and the impact of prematurity on brain connectivity. NeuroImage, 2017, 149, 379-392.	4.2	187
31	Noninvasive Quantification of Solid Tumor Microstructure Using VERDICT MRI. Cancer Research, 2014, 74, 1902-1912.	0.9	185
32	Magnetic resonance imaging evidence for presymptomatic change in thalamus and caudate in familial Alzheimerâ€™s disease. Brain, 2013, 136, 1399-1414.	7.6	174
33	Probabilistic Monte Carlo Based Mapping of Cerebral Connections Utilising Whole-Brain Crossing Fibre Information. Lecture Notes in Computer Science, 2003, 18, 684-695.	1.3	174
34	Camino: Diffusion MRI reconstruction and processing. The Insight Journal, 2005, , .	0.2	172
35	Convergence and Parameter Choice for Monte-Carlo Simulations of Diffusion MRI. IEEE Transactions on Medical Imaging, 2009, 28, 1354-1364.	8.9	168
36	Assessing white matter microstructure of the newborn with multi-shell diffusion MRI and biophysical compartment models. NeuroImage, 2014, 96, 288-299.	4.2	161

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37	Abnormalities of language networks in temporal lobe epilepsy. NeuroImage, 2007, 36, 209-221.	4.2	157
38	SANDI: A compartment-based model for non-invasive apparent soma and neurite imaging by diffusion MRI. NeuroImage, 2020, 215, 116835.	4.2	155
39	Conventions and nomenclature for double diffusion encoding NMR and MRI. Magnetic Resonance in Medicine, 2016, 75, 82-87.	3.0	154
40	White matter connections reflect changes in voluntary-guided saccades in pre-symptomatic Huntington's disease. Brain, 2008, 131, 196-204.	7.6	153
41	Binghamâ€“NODDI: Mapping anisotropic orientation dispersion of neurites using diffusion MRI. NeuroImage, 2016, 133, 207-223.	4.2	143
42	Microstructural Characterization of Normal and Malignant Human Prostate Tissue With Vascular, Extracellular, and Restricted Diffusion for Cytometry in Tumours Magnetic Resonance Imaging. Investigative Radiology, 2015, 50, 218-227.	6.2	137
43	Evaluation of mutant huntingtin and neurofilament proteins as potential markers in Huntingtonâ€™s disease. Science Translational Medicine, 2018, 10, .	12.4	134
44	Persistent Angular Structure: New Insights from Diffusion MRI Data. Dummy Version. Lecture Notes in Computer Science, 2003, 18, 672-683.	1.3	131
45	Advanced diffusion imaging sequences could aid assessing patients with focal cortical dysplasia and epilepsy. Epilepsy Research, 2014, 108, 336-339.	1.6	129
46	The CONNECT project: Combining macro- and micro-structure. NeuroImage, 2013, 80, 273-282.	4.2	121
47	Contrast and stability of the axon diameter index from microstructure imaging with diffusion MRI. Magnetic Resonance in Medicine, 2013, 70, 711-721.	3.0	120
48	Optimal acquisition orders of diffusion-weighted MRI measurements. Journal of Magnetic Resonance Imaging, 2007, 25, 1051-1058.	3.4	118
49	Identifying multiple sclerosis subtypes using unsupervised machine learning and MRI data. Nature Communications, 2021, 12, 2078.	12.8	112
50	The structural plasticity of white matter networks following anterior temporal lobe resection. Brain, 2010, 133, 2348-2364.	7.6	111
51	Data-driven models of dominantly-inherited Alzheimerâ€™s disease progression. Brain, 2018, 141, 1529-1544.	7.6	111
52	<scp>PGSE</scp>, <scp>OGSE</scp>, and sensitivity to axon diameter in diffusion <scp>MRI</scp>: Insight from a simulation study. Magnetic Resonance in Medicine, 2016, 75, 688-700.	3.0	109
53	Neurite orientation dispersion and density imaging of the healthy cervical spinal cord in vivo. NeuroImage, 2015, 111, 590-601.	4.2	106
54	Maximum Entropy Spherical Deconvolution for Diffusion MRI. Lecture Notes in Computer Science, 2005, 19, 76-87.	1.3	100

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55	Learning From Noisy Labels by Regularized Estimation of Annotator Confusion. , 2019, , .		93
56	Optimal acquisition schemes for in vivo quantitative magnetization transfer MRI. Magnetic Resonance in Medicine, 2006, 56, 803-810.	3.0	92
57	Cross-scanner and cross-protocol diffusion MRI data harmonisation: A benchmark database and evaluation of algorithms. NeuroImage, 2019, 195, 285-299.	4.2	92
58	Image quality transfer and applications in diffusion MRI. NeuroImage, 2017, 152, 283-298.	4.2	91
59	Cortical microstructure in young onset Alzheimer's disease using neurite orientation dispersion and density imaging. Human Brain Mapping, 2018, 39, 3005-3017.	3.6	87
60	ApoE influences regional white-matter axonal density loss in Alzheimer's disease. Neurobiology of Aging, 2017, 57, 8-17.	3.1	82
61	Optimizing gradient waveforms for microstructure sensitivity in diffusion-weighted MR. Journal of Magnetic Resonance, 2010, 206, 41-51.	2.1	80
62	Probabilistic disease progression modeling to characterize diagnostic uncertainty: Application to staging and prediction in Alzheimer's disease. NeuroImage, 2019, 190, 56-68.	4.2	80
63	Elastic Matching of Diffusion Tensor Images. Computer Vision and Image Understanding, 2000, 77, 233-250.	4.7	78
64	Predicting Alzheimer's disease progression using deep recurrent neural networks. NeuroImage, 2020, 222, 117203.	4.2	76
65	Imaging plus X: multimodal models of neurodegenerative disease. Current Opinion in Neurology, 2017, 30, 371-379.	3.6	75
66	Combined diffusionâ€relaxometry MRI to identify dysfunction in the human placenta. Magnetic Resonance in Medicine, 2019, 82, 95-106.	3.0	74
67	A ranking of diffusion MRI compartment models with in vivo human brain data. Magnetic Resonance in Medicine, 2014, 72, 1785-1792.	3.0	73
68	Different patterns of cortical maturation before and after 38 weeks gestational age demonstrated by diffusion MRI in vivo. NeuroImage, 2019, 185, 764-775.	4.2	73
69	Towards higher sensitivity and stability of axon diameter estimation with diffusionâ€weighted MRI. NMR in Biomedicine, 2016, 29, 293-308.	2.8	70
70	Machine learning based compartment models with permeability for white matter microstructure imaging. NeuroImage, 2017, 150, 119-135.	4.2	70
71	Neurite orientation and dispersion density imaging (NODDI) detects cortical and corticospinal tract degeneration in ALS. Journal of Neurology, Neurosurgery and Psychiatry, 2019, 90, 404-411.	1.9	70
72	Image Quality Transfer via Random Forest Regression: Applications in Diffusion MRI. Lecture Notes in Computer Science, 2014, 17, 225-232.	1.3	67

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73	Bayesian Image Quality Transfer with CNNs: Exploring Uncertainty in dMRI Super-Resolution. Lecture Notes in Computer Science, 2017, , 611-619.	1.3	67
74	Aging related cognitive changes associated with Alzheimer's disease in Down syndrome. Annals of Clinical and Translational Neurology, 2018, 5, 741-751.	3.7	64
75	Longitudinal neuroanatomical and cognitive progression of posterior cortical atrophy. Brain, 2019, 142, 2082-2095.	7.6	64
76	Mutant huntingtin and neurofilament light have distinct longitudinal dynamics in Huntingtonâ€™s disease. Science Translational Medicine, 2020, 12, .	12.4	64
77	Impaired development of the cerebral cortex in infants with congenital heart disease is correlated to reduced cerebral oxygen delivery. Scientific Reports, 2017, 7, 15088.	3.3	60
78	Multiâ€modal functional MRI to explore placental function over gestation. Magnetic Resonance in Medicine, 2019, 81, 1191-1204.	3.0	60
79	Uncertainty modelling in deep learning for safer neuroimage enhancement: Demonstration in diffusion MRI. NeuroImage, 2021, 225, 117366.	4.2	59
80	Disease Progression Modeling in Chronic Obstructive Pulmonary Disease. American Journal of Respiratory and Critical Care Medicine, 2020, 201, 294-302.	5.6	56
81	Cross-scanner and cross-protocol multi-shell diffusion MRI data harmonization: Algorithms and results. NeuroImage, 2020, 221, 117128.	4.2	54
82	White matter compartment models for in vivo diffusion MRI at 300 mT/m. NeuroImage, 2015, 118, 468-483.	4.2	53
83	Placenta microstructure and microcirculation imaging with diffusion MRI. Magnetic Resonance in Medicine, 2018, 80, 756-766.	3.0	53
84	VERDICT MRI for Prostate Cancer: Intracellular Volume Fraction versus Apparent Diffusion Coefficient. Radiology, 2019, 291, 391-397.	7.3	52
85	Joint super-resolution and synthesis of 1Âmm isotropic MP-RAGE volumes from clinical MRI exams with scans of different orientation, resolution and contrast. NeuroImage, 2021, 237, 118206.	4.2	52
86	Eyetracking Metrics in Young Onset Alzheimerâ€™s Disease: A Window into Cognitive Visual Functions. Frontiers in Neurology, 2017, 8, 377.	2.4	50
87	An imageâ€based model of brain volume biomarker changes in Huntington's disease. Annals of Clinical and Translational Neurology, 2018, 5, 570-582.	3.7	50
88	Neurite density is reduced in the presymptomatic phase ofC9orf72disease. Journal of Neurology, Neurosurgery and Psychiatry, 2019, 90, 387-394.	1.9	50
89	Sequence of clinical and neurodegeneration events in Parkinsonâ€™s disease progression. Brain, 2021, 144, 975-988.	7.6	49
90	Gaussian phase distribution approximations for oscillating gradient spin echo diffusion MRI. Journal of Magnetic Resonance, 2013, 227, 25-34.	2.1	48

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91	Abnormal Microstructural Development of the Cerebral Cortex in Neonates With Congenital Heart Disease Is Associated With Impaired Cerebral Oxygen Delivery. Journal of the American Heart Association, 2019, 8, e009893.	3.7	48
92	Reduced neurite density in the brain and cervical spinal cord in relapsingâ€“remitting multiple sclerosis: A NODDI study. Multiple Sclerosis Journal, 2020, 26, 1647-1657.	3.0	48
93	The matrix formalism for generalised gradients with time-varying orientation in diffusion NMR. Journal of Magnetic Resonance, 2011, 210, 151-157.	2.1	47
94	Accurate estimation of microscopic diffusion anisotropy and its time dependence in the mouse brain. NeuroImage, 2018, 183, 934-949.	4.2	46
95	A Regularization Scheme for Diffusion Tensor Magnetic Resonance Images. Lecture Notes in Computer Science, 2001, , 92-105.	1.3	46
96	DIVE: A spatiotemporal progression model of brain pathology in neurodegenerative disorders. NeuroImage, 2019, 192, 166-177.	4.2	45
97	Using the Model-Based Residual Bootstrap to Quantify Uncertainty in Fiber Orientations From Q-Ball Analysis. IEEE Transactions on Medical Imaging, 2009, 28, 535-550.	8.9	42
98	Data-Driven Sequence of Changes to Anatomical Brain Connectivity in Sporadic Alzheimerâ€™s Disease. Frontiers in Neurology, 2017, 8, 580.	2.4	42
99	Multi-study validation of data-driven disease progression models to characterize evolution of biomarkers in Alzheimer's disease. NeuroImage: Clinical, 2019, 24, 101954.	2.7	42
100	SVM recursive feature elimination analyses of structural brain MRI predicts near-term relapses in patients with clinically isolated syndromes suggestive of multiple sclerosis. NeuroImage: Clinical, 2019, 24, 102011.	2.7	42
101	Susceptibility of brain atrophy to TRIB3 in Alzheimerâ€™s disease, evidence from functional prioritization in imaging genetics. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3162-3167.	7.1	41
102	MicroTrack: An Algorithm for Concurrent Projectome and Microstructure Estimation. Lecture Notes in Computer Science, 2010, 13, 183-190.	1.3	41
103	Modelâ€based estimation of microscopic anisotropy using diffusion MRI: a simulation study. NMR in Biomedicine, 2016, 29, 672-685.	2.8	40
104	Information theoretic ranking of four models of diffusion attenuation in fresh and fixed prostate tissue ex vivo. Magnetic Resonance in Medicine, 2014, 72, 1418-1426.	3.0	39
105	Improved tractography using asymmetric fibre orientation distributions. NeuroImage, 2017, 158, 205-218.	4.2	39
106	Using High Angular Resolution Diffusion Imaging Data to Discriminate Cortical Regions. PLoS ONE, 2013, 8, e63842.	2.5	37
107	A generative model of realistic brain cells with application to numerical simulation of the diffusion-weighted MR signal. NeuroImage, 2019, 188, 391-402.	4.2	36
108	Estimation of pore size in a microstructure phantom using the optimised gradient waveform diffusion weighted NMR sequence. Journal of Magnetic Resonance, 2012, 214, 51-60.	2.1	35

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109	High angular resolution diffusion imaging with stimulated echoes: compensation and correction in experiment design and analysis. NMR in Biomedicine, 2014, 27, 918-925.	2.8	35
110	A tract-specific approach to assessing white matter in preterm infants. NeuroImage, 2017, 157, 675-694.	4.2	35
111	Training data distribution significantly impacts the estimation of tissue microstructure with machine learning. Magnetic Resonance in Medicine, 2022, 87, 932-947.	3.0	35
112	A method for improving the performance of gradient systems for diffusion-weighted MRI. Magnetic Resonance in Medicine, 2007, 58, 763-768.	3.0	34
113	Multi-parametric quantitative in vivo spinal cord MRI with unified signal readout and image denoising. NeuroImage, 2020, 217, 116884.	4.2	34
114	Diffusion MRI microstructure models with in vivo human brain Connectome data: results from a multiâ€group comparison. NMR in Biomedicine, 2017, 30, e3734.	2.8	33
115	TADPOLE Challenge: Accurate Alzheimerâ€™s Disease Prediction Through Crowdsourced Forecasting of Future Data. Lecture Notes in Computer Science, 2019, 11843, 1-10.	1.3	32
116	Exploiting peak anisotropy for tracking through complex structures. , 2007, , .		31
117	Optimising time-varying gradient orientation for microstructure sensitivity in diffusion-weighted MR. Journal of Magnetic Resonance, 2011, 212, 344-354.	2.1	31
118	Using diffusion MRI to discriminate areas of cortical grey matter. NeuroImage, 2018, 182, 456-468.	4.2	31
119	Sequences of cognitive decline in typical Alzheimer's disease and posterior cortical atrophy estimated using a novel eventâ€based model of disease progression. Alzheimer's and Dementia, 2020, 16, 965-973.	0.8	30
120	Relevance of timeâ€dependence for clinically viable diffusion imaging of the spinal cord. Magnetic Resonance in Medicine, 2019, 81, 1247-1264.	3.0	29
121	Noninvasive diffusion magnetic resonance imaging of brain tumour cell size for the early detection of therapeutic response. Scientific Reports, 2020, 10, 9223.	3.3	29
122	Characterizing the Clinical Features and Atrophy Patterns of MAPT -Related Frontotemporal Dementia With Disease Progression Modeling. Neurology, 2021, 97, e941-e952.	1.1	29
123	Applying causal models to explore the mechanism of action of simvastatin in progressive multiple sclerosis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11020-11027.	7.1	28
124	Prion propagation estimated from brain diffusion MRI is subtype dependent in sporadic Creutzfeldtâ€“Jakob disease. Acta Neuropathologica, 2020, 140, 169-181.	7.7	28
125	A framework for optimal whole-sample histological quantification of neurite orientation dispersion in the human spinal cord. Journal of Neuroscience Methods, 2016, 273, 20-32.	2.5	27
126	Microstructural models for diffusion MRI in breast cancer and surrounding stroma: an ex vivo study. NMR in Biomedicine, 2017, 30, e3679.	2.8	27

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127	Apparatus for Histological Validation of In Vivo and Ex Vivo Magnetic Resonance Imaging of the Human Prostate. Frontiers in Oncology, 2017, 7, 47.	2.8	27
128	Deeper Image Quality Transfer: Training Low-Memory Neural Networks for 3D Images. Lecture Notes in Computer Science, 2018, , 118-125.	1.3	27
129	Fixel-based analysis of the preterm brain: Disentangling bundle-specific white matter microstructural and macrostructural changes in relation to clinical risk factors. NeuroImage: Clinical, 2019, 23, 101820.	2.7	27
130	Parametric Probability Distribution Functions for Axon Diameters of Corpus Callosum. Frontiers in Neuroanatomy, 2016, 10, 59.	1.7	26
131	Double oscillating diffusion encoding and sensitivity to microscopic anisotropy. Magnetic Resonance in Medicine, 2017, 78, 550-564.	3.0	26
132	Modeling Alzheimerâ€™s disease progression using deep recurrent neural networks. , 2018, , .		26
133	Multiple Fibers. , 2009, , 55-72.		25
134	Uncertainty in Multitask Learning: Joint Representations for Probabilistic MR-only Radiotherapy Planning. Lecture Notes in Computer Science, 2018, , 3-11.	1.3	25
135	A Computationally Efficient Approach to Segmentation of the Aorta and Coronary Arteries Using Deep Learning. IEEE Access, 2021, 9, 108873-108888.	4.2	24
136	High-Fidelity Meshes from Tissue Samples for Diffusion MRI Simulations. Lecture Notes in Computer Science, 2010, 13, 404-411.	1.3	24
137	Viable and fixed white matter: Diffusion magnetic resonance comparisons and contrasts at physiological temperature. Magnetic Resonance in Medicine, 2014, 72, 1151-1161.	3.0	22
138	VERDICT MRI validation in fresh and fixed prostate specimens using patientâ€specific moulds for histological and MR alignment. NMR in Biomedicine, 2019, 32, e4073.	2.8	22
139	Augmenting Dementia Cognitive Assessment With Instruction-Less Eye-Tracking Tests. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 3066-3075.	6.3	22
140	Robust Markers and Sample Sizes for Multicenter Trials of Huntington Disease. Annals of Neurology, 2020, 87, 751-762.	5.3	22
141	Data-Driven multi-Contrast spectral microstructure imaging with InSpect: INtegrated SPECTral component estimation and mapping. Medical Image Analysis, 2021, 71, 102045.	11.6	22
142	Multiple Orderings of Events in Disease Progression. Lecture Notes in Computer Science, 2015, 24, 711-722.	1.3	22
143	AlzEye: longitudinal record-level linkage of ophthalmic imaging and hospital admissions of 353â€‰157 patients in London, UK. BMJ Open, 2022, 12, e058552.	1.9	22
144	Multiple Fibers. , 2014, , 105-123.		21

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145	ConFiG: Contextual Fibre Growth to generate realistic axonal packing for diffusion MRI simulation. NeuroImage, 2020, 220, 117107.	4.2	21
146	The sequence of structural, functional and cognitive changes in multiple sclerosis. NeuroImage: Clinical, 2021, 29, 102550.	2.7	21
147	BrainPainter: A Software for the Visualisation of Brain Structures, Biomarkers and Associated Pathological Processes. Lecture Notes in Computer Science, 2019, 11846, 112-120.	1.3	21
148	AutoMorph: Automated Retinal Vascular Morphology Quantification Via a Deep Learning Pipeline. Translational Vision Science and Technology, 2022, 11, 12.	2.2	21
149	Revealing the Timeline of Structural MRI Changes in Premanifest to Manifest Huntington Disease. Neurology: Genetics, 2021, 7, e617.	1.9	20
150	A new approach to structural integrity assessment based on axial and radial diffusivities. Functional Neurology, 2012, 27, 85-90.	1.3	20
151	Interactive Lesion Segmentation with Shape Priors From Offline and Online Learning. IEEE Transactions on Medical Imaging, 2012, 31, 1698-1712.	8.9	19
152	VERDICTâ€AMICO: Ultrafast fitting algorithm for nonâ€invasive prostate microstructure characterization. NMR in Biomedicine, 2019, 32, e4019.	2.8	19
153	pySuStaIn: A Python implementation of the Subtype and Stage Inference algorithm. SoftwareX, 2021, 16, 100811.	2.6	19
154	DeepReg: a deep learning toolkit for medical image registration. Journal of Open Source Software, 2020, 5, 2705.	4.6	19
155	Structure Tensor Informed Fiber Tractography (STIFT) by combining gradient echo MRI and diffusion weighted imaging. NeuroImage, 2012, 59, 3941-3954.	4.2	17
156	Probing axons using multiâ€compartmental diffusion in multiple sclerosis. Annals of Clinical and Translational Neurology, 2019, 6, 1595-1605.	3.7	17
157	Ordinal SuStaIn: Subtype and Stage Inference for Clinical Scores, Visual Ratings, and Other Ordinal Data. Frontiers in Artificial Intelligence, 2021, 4, 613261.	3.4	17
158	Experimental studies of g-ratio MRI in ex vivo mouse brain. NeuroImage, 2018, 167, 366-371.	4.2	16
159	Simplified Luminal Water Imaging for the Detection of Prostate Cancer From Multiecho T₂ MR Images. Journal of Magnetic Resonance Imaging, 2019, 50, 910-917.	3.4	16
160	Evolution of white matter damage in amyotrophic lateral sclerosis. Annals of Clinical and Translational Neurology, 2020, 7, 722-732.	3.7	16
161	Axon Diameter Mapping in Crossing Fibers with Diffusion MRI. Lecture Notes in Computer Science, 2011, 14, 82-89.	1.3	16
162	Beyond Crossing Fibers: Tractography Exploiting Sub-voxel Fibre Dispersion and Neighbourhood Structure. Lecture Notes in Computer Science, 2013, 23, 402-413.	1.3	16

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163	Learning Imaging Biomarker Trajectories from Noisy Alzheimerâ€™s Disease Data Using a Bayesian Multilevel Model. Lecture Notes in Computer Science, 2014, , 85-94.	1.3	15
164	An optimized framework for quantitative magnetization transfer imaging of the cervical spinal cord in vivo. Magnetic Resonance in Medicine, 2018, 79, 2576-2588.	3.0	15
165	Modeling longitudinal imaging biomarkers with parametric Bayesian multiâ€task learning. Human Brain Mapping, 2019, 40, 3982-4000.	3.6	15
166	Inter-Cohort Validation of SuStaIn Model for Alzheimerâ€™s Disease. Frontiers in Big Data, 2021, 4, 661110.	2.9	15
167	Identifying and evaluating clinical subtypes of Alzheimerâ€™s disease in care electronic health records using unsupervised machine learning. BMC Medical Informatics and Decision Making, 2021, 21, 343.	3.0	15
168	Machine Learning Based Compartment Models with Permeability for White Matter Microstructure Imaging. Lecture Notes in Computer Science, 2014, 17, 257-264.	1.3	13
169	A simulation system for biomarker evolution in neurodegenerative disease. Medical Image Analysis, 2015, 26, 47-56.	11.6	13
170	Quantitative detection and staging of presymptomatic cognitive decline in familial Alzheimerâ€™s disease: a retrospective cohort analysis. Alzheimer's Research and Therapy, 2020, 12, 126.	6.2	13
171	An Event-Based Disease Progression Model and Its Application to Familial Alzheimerâ€™s Disease. Lecture Notes in Computer Science, 2011, 22, 748-759.	1.3	13
172	The Importance of Being Dispersed: A Ranking of Diffusion MRI Models for Fibre Dispersion Using In Vivo Human Brain Data. Lecture Notes in Computer Science, 2013, 16, 74-81.	1.3	13
173	Degenerative adversarial neuroimage nets for brain scan simulations: Application in ageing and dementia. Medical Image Analysis, 2022, 75, 102257.	11.6	13
174	Mathematical models for the diffusion magnetic resonance signal abnormality in patients with prion diseases. NeuroImage: Clinical, 2015, 7, 142-154.	2.7	12
175	Machine learning based white matter models with permeability: An experimental study in cuprizone treated in-vivo mouse model of axonal demyelination. NeuroImage, 2021, 224, 117425.	4.2	12
176	Comparison of Neurite Orientation Dispersion and Density Imaging and Two-Compartment Spherical Mean Technique Parameter Maps in Multiple Sclerosis. Frontiers in Neurology, 2021, 12, 662855.	2.4	12
177	Optimising oscillating waveform-shape for pore size sensitivity in diffusion-weighted MR. Microporous and Mesoporous Materials, 2013, 178, 11-14.	4.4	11
178	Microstructural parameter estimation in vivo using diffusion MRI and structured prior information. Magnetic Resonance in Medicine, 2016, 75, 1787-1796.	3.0	11
179	Bayesian Image Quality Transfer. Lecture Notes in Computer Science, 2016, , 265-273.	1.3	11
180	In Utero Diffusion MRI. Topics in Magnetic Resonance Imaging, 2019, 28, 255-264.	1.2	11

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181	Two-Compartment Models of the Diffusion MR Signal in Brain White Matter. Lecture Notes in Computer Science, 2009, 12, 329-336.	1.3	11
182	Differences in topological progression profile among neurodegenerative diseases from imaging data. ELife, 2019, 8, .	6.0	11
183	Statistical Modeling of Colour Data. International Journal of Computer Vision, 2001, 44, 87-109.	15.6	10
184	Model-based registration to correct for motion between acquisitions in diffusion MR imaging. , 2008, , .		10
185	Validation of low-dose lung cancer PET-CT protocol and PET image improvement using machine learning. Physica Medica, 2021, 81, 285-294.	0.7	10
186	Diffusion magnetic resonance imaging assessment of regional white matter maturation in preterm neonates. Neuroradiology, 2021, 63, 573-583.	2.2	10
187	Improving the characterization of meningioma microstructure in proton therapy from conventional apparent diffusion coefficient measurements using Monte Carlo simulations of diffusion MRI. Medical Physics, 2021, 48, 1250-1261.	3.0	10
188	Evaluation of PSA and PSA Density in a Multiparametric Magnetic Resonance Imaging-Directed Diagnostic Pathway for Suspected Prostate Cancer: The INNOVATE Trial. Cancers, 2021, 13, 1985.	3.7	10
189	On the potential for mapping apparent neural soma density via a clinically viable diffusion MRI protocol. NeuroImage, 2021, 239, 118303.	4.2	10
190	On the generalizability of diffusion MRI signal representations across acquisition parameters, sequences and tissue types: Chronicles of the MEMENTO challenge. NeuroImage, 2021, 240, 118367.	4.2	10
191	Gleason Grading of Prostate Tumours with Max-Margin Conditional Random Fields. Lecture Notes in Computer Science, 2014, , 85-92.	1.3	10
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