Saad Jbabdi

List of Publications by Year in descending order

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9103 10389 31,610 156 72 144 citations h-index g-index papers 194 194 194 25398 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	The Digital Brain Bank, an open access platform for post-mortem imaging datasets. ELife, 2022, 11, .	6.0	22
2	SARS-CoV-2 is associated with changes in brain structure in UK Biobank. Nature, 2022, 604, 697-707.	27.8	825
3	The Developing Human Connectome Project Neonatal Data Release. Frontiers in Neuroscience, 2022, 16,	2.8	42
4	Accurate predictions of individual differences in task-evoked brain activity from resting-state fMRI using a sparse ensemble learner. Neurolmage, 2022, 259, 119418.	4.2	3
5	ldentifying microstructural changes in diffusion MRI; How to circumvent parameter degeneracy. Neurolmage, 2022, 260, 119452.	4.2	1
6	Four Deep Brain Stimulation Targets for Obsessive-Compulsive Disorder: Are They Different?. Biological Psychiatry, 2021, 90, 667-677.	1.3	65
7	FSLâ€MRS: An endâ€toâ€end spectroscopy analysis package. Magnetic Resonance in Medicine, 2021, 85, 2950-2964.	3.0	49
8	Modelling white matter in gyral blades as a continuous vector field. Neurolmage, 2021, 227, 117693.	4.2	15
9	Functional and diffusion MRI reveal the neurophysiological basis of neonates' noxious-stimulus evoked brain activity. Nature Communications, 2021, 12, 2744.	12.8	11
10	Quantifying myelin in crossing fibers using diffusionâ€prepared phase imaging: Theory and simulations. Magnetic Resonance in Medicine, 2021, 86, 2618-2634.	3.0	2
11	A Common Space Approach to Comparative Neuroscience. Annual Review of Neuroscience, 2021, 44, 69-86.	10.7	48
12	Estimation of Liâ€lon Degradation Test Sample Sizes Required to Understand Cellâ€toâ€Cell Variability**. Batteries and Supercaps, 2021, 4, 1821-1829.	4.7	23
13	Hierarchical modelling of functional brain networks in population and individuals from big fMRI data. Neurolmage, 2021, 243, 118513.	4.2	8
14	Clinical applications of magnetic resonance imaging based functional and structural connectivity. Neurolmage, 2021, 244, 118649.	4.2	21
15	Circuits, Networks, and Neuropsychiatric Disease: Transitioning From Anatomy to Imaging. Biological Psychiatry, 2020, 87, 318-327.	1.3	51
16	Use of multi-flip angle measurements to account for transmit inhomogeneity and non-Gaussian diffusion in DW-SSFP. NeuroImage, 2020, 220, 117113.	4.2	7
17	Longitudinal connections and the organization of the temporal cortex in macaques, great apes, and humans. PLoS Biology, 2020, 18, e3000810.	5.6	49
18	Challenges and future directions for representations of functional brain organization. Nature Neuroscience, 2020, 23, 1484-1495.	14.8	99

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19	Non-negative data-driven mapping of structural connections with application to the neonatal brain. Neurolmage, 2020, 222, 117273.	4.2	14
20	Towards HCP-Style macaque connectomes: 24-Channel 3T multi-array coil, MRI sequences and preprocessing. Neurolmage, 2020, 215, 116800.	4.2	67
21	XTRACT - Standardised protocols for automated tractography in the human and macaque brain. Neurolmage, 2020, 217, 116923.	4.2	165
22	Transient spectral events in resting state MEG predict individual task responses. NeuroImage, 2020, 215, 116818.	4.2	14
23	Improved fibre dispersion estimation using b-tensor encoding. Neurolmage, 2020, 215, 116832.	4.2	17
24	Modeling an equivalent bâ€value in diffusionâ€weighted steadyâ€state free precession. Magnetic Resonance in Medicine, 2020, 84, 873-884.	3.0	11
25	Human decisions about when to act originate within a basal forebrain–nigral circuit. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 11799-11810.	7.1	14
26	Cross-species cortical alignment identifies different types of anatomical reorganization in the primate temporal lobe. ELife, 2020, 9, .	6.0	71
27	Automated processing pipeline for neonatal diffusion MRI in the developing Human Connectome Project. Neurolmage, 2019, 185, 750-763.	4.2	127
28	What is special about the human arcuate fasciculus? Lateralization, projections, and expansion. Cortex, 2019, 118, 107-115.	2.4	88
29	Joint modelling of diffusion MRI and microscopy. NeuroImage, 2019, 201, 116014.	4.2	19
30	Auditory and pain processing is severely disrupted at slow wave activity saturation under general anaesthesia. British Journal of Anaesthesia, 2019, 123, e514.	3.4	0
31	Structural Variability in the Human Brain Reflects Fine-Grained Functional Architecture at the Population Level. Journal of Neuroscience, 2019, 39, 6136-6149.	3.6	29
32	The spatial correspondence and genetic influence of interhemispheric connectivity with white matter microstructure. Nature Neuroscience, 2019, 22, 809-819.	14.8	56
33	Concurrent analysis of white matter bundles and grey matter networks in the chimpanzee. Brain Structure and Function, 2019, 224, 1021-1033.	2.3	21
34	Using GPUs to accelerate computational diffusion MRI: From microstructure estimation to tractography and connectomes. Neurolmage, 2019, 188, 598-615.	4.2	107
35	Automated quality control for within and between studies diffusion MRI data using a non-parametric framework for movement and distortion correction. Neurolmage, 2019, 184, 801-812.	4.2	197
36	A connectional hub in the rostral anterior cingulate cortex links areas of emotion and cognitive control. ELife, $2019,8,.$	6.0	78

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37	Bayesian Optimisation of Large-Scale Biophysical Networks. NeuroImage, 2018, 174, 219-236.	4.2	16
38	A gyral coordinate system predictive of fibre orientations. Neurolmage, 2018, 176, 417-430.	4.2	13
39	Functional Segmentation of the Anterior Limb of the Internal Capsule: Linking White Matter Abnormalities to Specific Connections. Journal of Neuroscience, 2018, 38, 2106-2117.	3.6	118
40	Connectivity and the search for specializations in the language-capable brain. Current Opinion in Behavioral Sciences, 2018, 21, 19-26.	3.9	37
41	Concurrent white matter bundles and grey matter networks using independent component analysis. Neurolmage, 2018, 170, 296-306.	4.2	37
42	Choice of reference measurements affects quantification of long diffusion time behaviour using stimulated echoes. Magnetic Resonance in Medicine, 2018, 79, 952-959.	3.0	3
43	Timeâ€efficient and flexible design of optimized multishell HARDI diffusion. Magnetic Resonance in Medicine, 2018, 79, 1276-1292.	3.0	72
44	Image processing and Quality Control for the first 10,000 brain imaging datasets from UK Biobank. Neurolmage, 2018, 166, 400-424.	4.2	1,026
45	Neuroimage special issue on brain segmentation and parcellation - Editorial. Neurolmage, 2018, 170, 1-4.	4.2	5
46	Feasibility of Diffusion Tensor and Morphologic Imaging of Peripheral Nerves at Ultra-High Field Strength. Investigative Radiology, 2018, 53, 705-713.	6.2	11
47	Extending the Human Connectome Project across ages: Imaging protocols for the Lifespan Development and Aging projects. Neurolmage, 2018, 183, 972-984.	4.2	290
48	A Machine Learning Approach toÂDiffusion MRI Partial Volume Estimation. Lecture Notes in Computer Science, 2018, , 42-51.	1.3	0
49	Connectivity Fingerprints: From Areal Descriptions to Abstract Spaces. Trends in Cognitive Sciences, 2018, 22, 1026-1037.	7.8	134
50	Dissecting the pathobiology of altered MRI signal in amyotrophic lateral sclerosis: A post mortem whole brain sampling strategy for the integration of ultra-high-field MRI and quantitative neuropathology. BMC Neuroscience, 2018, 19, 11.	1.9	47
51	An empirical, 21st century evaluation of phrenology. Cortex, 2018, 106, 26-35.	2.4	20
52	A biophysical model of dynamic balancing of excitation and inhibition in fast oscillatory large-scale networks. PLoS Computational Biology, 2018, 14, e1006007.	3.2	73
53	Whole brain comparative anatomy using connectivity blueprints. ELife, 2018, 7, .	6.0	135
54	Resting connectivity predicts task activation in pre-surgical populations. NeuroImage: Clinical, 2017, 13, 378-385.	2.7	55

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55	Evaluating fibre orientation dispersion in white matter: Comparison of diffusion MRI, histology and polarized light imaging. NeuroImage, 2017, 157, 561-574.	4.2	141
56	Subthalamic deep brain stimulation sweet spots and hyperdirect cortical connectivity in Parkinson's disease. NeuroImage, 2017, 158, 332-345.	4.2	197
57	Pathology of callosal damage in ALS: An ex-vivo, 7 T diffusion tensor MRI study. NeuroImage: Clinical, 2017, 15, 200-208.	2.7	40
58	Improved tractography using asymmetric fibre orientation distributions. NeuroImage, 2017, 158, 205-218.	4.2	39
59	Investigation of Slow-wave Activity Saturation during Surgical Anesthesia Reveals a Signature of Neural Inertia in Humans. Anesthesiology, 2017, 127, 645-657.	2.5	60
60	Anesthesia-induced Suppression of Human Dorsal Anterior Insula Responsivity at Loss of Volitional Behavioral Response. Anesthesiology, 2016, 124, 766-778.	2.5	31
61	Investigating the Stability of Fine-Grain Digit Somatotopy in Individual Human Participants. Journal of Neuroscience, 2016, 36, 1113-1127.	3.6	102
62	Task-free MRI predicts individual differences in brain activity during task performance. Science, 2016, 352, 216-220.	12.6	648
63	Fusion in diffusion MRI for improved fibre orientation estimation: An application to the 3T and 7T data of the Human Connectome Project. Neurolmage, 2016, 134, 396-409.	4.2	91
64	Tractography Study of Deep Brain Stimulation of the Anterior Cingulate Cortex inÂChronic Pain: Key to Improve the Targeting. World Neurosurgery, 2016, 86, 361-370.e3.	1.3	22
65	Multimodal population brain imaging in the UK Biobank prospective epidemiological study. Nature Neuroscience, 2016, 19, 1523-1536.	14.8	1,414
66	Using Diffusion Tractography to Predict Cortical Connection Strength and Distance: A Quantitative Comparison with Tracers in the Monkey. Journal of Neuroscience, 2016, 36, 6758-6770.	3.6	318
67	Dentatorubrothalamic tract localization with postmortem MR diffusion tractography compared to histological 3D reconstruction. Brain Structure and Function, 2016, 221, 3487-3501.	2.3	43
68	The extreme capsule fiber complex in humans and macaque monkeys: a comparative diffusion MRI tractography study. Brain Structure and Function, 2016, 221, 4059-4071.	2.3	91
69	Unmasking Latent Inhibitory Connections in Human Cortex to Reveal Dormant Cortical Memories. Neuron, 2016, 90, 191-203.	8.1	112
70	A probabilistic atlas of the cerebellar white matter. NeuroImage, 2016, 124, 724-732.	4.2	74
71	Revealing the neural fingerprints of a missing hand. ELife, 2016, 5, .	6.0	107
72	Perceptually relevant remapping of human somatotopy in 24 hours. ELife, 2016, 5, .	6.0	40

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73	A model for extraâ€axonal diffusion spectra with frequencyâ€dependent restriction. Magnetic Resonance in Medicine, 2015, 73, 2306-2320.	3.0	15
74	Diffusion tensor imaging of dolphin brains reveals direct auditory pathway to temporal lobe. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20151203.	2.6	36
75	Thalamo-Cortical Disruption Contributes to Short-Term Memory Deficits in Patients with Medial Temporal Lobe Damage. Cerebral Cortex, 2015, 25, 4584-4595.	2.9	25
76	Connectivityâ€based segmentation of the periaqueductal gray matter in human with brainstem optimized diffusion MRI. Human Brain Mapping, 2015, 36, 3459-3471.	3.6	71
77	High resolution whole brain diffusion imaging at 7 T for the Human Connectome Project. Neurolmage, 2015, 122, 318-331.	4.2	166
78	Tract-Based Spatial Statistics and Other Approaches for Cross-Subject Comparison of Local Diffusion MRI Parameters. , 2015, , 437-464.		2
79	Heritability of fractional anisotropy in human white matter: A comparison of Human Connectome Project and ENIGMA-DTI data. Neurolmage, 2015, 111, 300-311.	4.2	227
80	Measuring macroscopic brain connections in vivo. Nature Neuroscience, 2015, 18, 1546-1555.	14.8	292
81	Mapping Connections in Humans andÂNon-Human Primates. , 2014, , 337-358.		53
82	Improving diffusion-weighted imaging of post-mortem human brains: SSFP at 7T. NeuroImage, 2014, 102, 579-589.	4.2	42
83	Cross-Subject Comparison of Local Diffusion MRI Parameters. , 2014, , 209-239.		3
84	fMRI and sleep correlates of the ageâ€related impairment in motor memory consolidation. Human Brain Mapping, 2014, 35, 3625-3645.	3.6	127
85	Imaging Structure and Function. , 2014, , 585-605.		3
86	Comprehensive morphometry of subcortical grey matter structures in earlyâ€stage Parkinson's disease. Human Brain Mapping, 2014, 35, 1681-1690.	3.6	84
87	Connectivity-Based Functional Analysis of Dopamine Release in the Striatum Using Diffusion-Weighted MRI and Positron Emission Tomography. Cerebral Cortex, 2014, 24, 1165-1177.	2.9	276
88	MR Diffusion Tractography. , 2014, , 429-451.		14
89	MSM: A new flexible framework for Multimodal Surface Matching. Neurolmage, 2014, 100, 414-426.	4.2	532
90	Differential structural and resting state connectivity between insular subdivisions and other pain-related brain regions. Pain, 2014, 155, 2047-2055.	4.2	144

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91	The Organization of Dorsal Frontal Cortex in Humans and Macaques. Journal of Neuroscience, 2013, 33, 12255-12274.	3.6	366
92	Effects of image reconstruction on fiber orientation mapping from multichannel diffusion MRI: Reducing the noise floor using SENSE. Magnetic Resonance in Medicine, 2013, 70, 1682-1689.	3.0	169
93	Spatially constrained hierarchical parcellation of the brain with resting-state fMRI. NeuroImage, 2013, 76, 313-324.	4.2	203
94	Causal effect of disconnection lesions on interhemispheric functional connectivity in rhesus monkeys. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13982-13987.	7.1	195
95	The CONNECT project: Combining macro- and micro-structure. Neurolmage, 2013, 80, 273-282.	4.2	121
96	Advances in diffusion MRI acquisition and processing in the Human Connectome Project. NeuroImage, 2013, 80, 125-143.	4.2	851
97	RubiX: Combining Spatial Resolutions for Bayesian Inference of Crossing Fibers in Diffusion MRI. IEEE Transactions on Medical Imaging, 2013, 32, 969-982.	8.9	32
98	The topographic connectome. Current Opinion in Neurobiology, 2013, 23, 207-215.	4.2	99
99	Human and Monkey Ventral Prefrontal Fibers Use the Same Organizational Principles to Reach Their Targets: Tracing versus Tractography. Journal of Neuroscience, 2013, 33, 3190-3201.	3.6	185
100	Imaging human connectomes at the macroscale. Nature Methods, 2013, 10, 524-539.	19.0	384
101	The minimal preprocessing pipelines for the Human Connectome Project. Neurolmage, 2013, 80, 105-124.	4.2	4,042
102	Pushing spatial and temporal resolution for functional and diffusion MRI in the Human Connectome Project. NeuroImage, 2013, 80, 80-104.	4.2	769
103	Longâ€range connectomics. Annals of the New York Academy of Sciences, 2013, 1305, 83-93.	3.8	35
104	Brain Systems for Probabilistic and Dynamic Prediction: Computational Specificity and Integration. PLoS Biology, 2013, 11, e1001662.	5.6	35
105	Slow-Wave Activity Saturation and Thalamocortical Isolation During Propofol Anesthesia in Humans. Science Translational Medicine, 2013, 5, 208ra148.	12.4	162
106	Motor Skill Learning Induces Changes in White Matter Microstructure and Myelination. Journal of Neuroscience, 2013, 33, 19499-19503.	3.6	369
107	The Temporoparietal Fiber Intersection Area and Wernicke Perpendicular Fasciculus. Neurosurgery, 2013, 73, E381-E382.	1.1	14
108	Accelerating Fibre Orientation Estimation from Diffusion Weighted Magnetic Resonance Imaging Using GPUs. PLoS ONE, 2013, 8, e61892.	2.5	152

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109	Multimodal Surface Matching: Fast and Generalisable Cortical Registration Using Discrete Optimisation. Lecture Notes in Computer Science, 2013, 23, 475-486.	1.3	32
110	Relating Brain Damage to Brain Plasticity in Patients With Multiple Sclerosis. Neurorehabilitation and Neural Repair, 2012, 26, 581-593.	2.9	61
111	Specialization: the connections have it. Nature Neuroscience, 2012, 15, 171-172.	14.8	12
112	Modelling fibre fanning in diffusion-weighted MRI. , 2012, , .		0
113	Connectivity-Based Subdivisions of the Human Right "Temporoparietal Junction Area": Evidence for Different Areas Participating in Different Cortical Networks. Cerebral Cortex, 2012, 22, 1894-1903.	2.9	452
114	Diffusion tractography of post-mortem human brains: Optimization and comparison of spin echo and steady-state free precession techniques. Neurolmage, 2012, 59, 2284-2297.	4.2	70
115	Ball and rackets: Inferring fiber fanning from diffusion-weighted MRI. Neurolmage, 2012, 60, 1412-1425.	4.2	142
116	Modelâ€based analysis of multishell diffusion MR data for tractography: How to get over fitting problems. Magnetic Resonance in Medicine, 2012, 68, 1846-1855.	3.0	336
117	Probabilistic tractography recovers a rostrocaudal trajectory of connectivity variability in the human insular cortex. Human Brain Mapping, 2012, 33, 2005-2034.	3.6	255
118	How can a Bayesian approach inform neuroscience?. European Journal of Neuroscience, 2012, 35, 1169-1179.	2.6	66
119	A Brain Network Processing the Age of Faces. PLoS ONE, 2012, 7, e49451.	2.5	13
120	Diffusion imaging of whole, post-mortem human brains on a clinical MRI scanner. NeuroImage, 2011, 57, 167-181.	4.2	239
121	Network analysis detects changes in the contralesional hemisphere following stroke. NeuroImage, 2011, 54, 161-169.	4.2	204
122	DTI measures in crossing-fibre areas: Increased diffusion anisotropy reveals early white matter alteration in MCI and mild Alzheimer's disease. NeuroImage, 2011, 55, 880-890.	4.2	468
123	Social Network Size Affects Neural Circuits in Macaques. Science, 2011, 334, 697-700.	12.6	435
124	Automated probabilistic reconstruction of white-matter pathways in health and disease using an atlas of the underlying anatomy. Frontiers in Neuroinformatics, 2011, 5, 23.	2.5	488
125	Structural and functional bases for individual differences in motor learning. Human Brain Mapping, 2011, 32, 494-508.	3.6	136
126	Tractography: Where Do We Go from Here?. Brain Connectivity, 2011, 1, 169-183.	1.7	542

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127	Preservation of motor skill learning in patients with multiple sclerosis. Multiple Sclerosis Journal, 2011, 17, 103-115.	3.0	69
128	Diffusion-Weighted Imaging Tractography-Based Parcellation of the Human Parietal Cortex and Comparison with Human and Macaque Resting-State Functional Connectivity. Journal of Neuroscience, 2011, 31, 4087-4100.	3.6	446
129	Motor Practice Promotes Increased Activity in Brain Regions Structurally Disconnected After Subcortical Stroke. Neurorehabilitation and Neural Repair, 2011, 25, 607-616.	2.9	52
130	Continuity, Divergence, and the Evolution of Brain Language Pathways. Frontiers in Evolutionary Neuroscience, 2011, 3, 11.	3.7	136
131	Cortical and Subcortical Connectivity Changes during Decreasing Levels of Consciousness in Humans: A Functional Magnetic Resonance Imaging Study using Propofol. Journal of Neuroscience, 2010, 30, 9095-9102.	3.6	199
132	Anatomical and Functional Connectivity of Cytoarchitectonic Areas within the Human Parietal Operculum. Journal of Neuroscience, 2010, 30, 6409-6421.	3.6	324
133	Connectivity-based segmentation of the substantia nigra in human and its implications in Parkinson's disease. Neurolmage, 2010, 52, 1175-1180.	4.2	124
134	Crossing fibres in tract-based spatial statistics. NeuroImage, 2010, 49, 249-256.	4.2	174
135	Bayesian estimation of dynamic systems function expansions. , 2010, , .		0
136	Structural Correlates of Preterm Birth in the Adolescent Brain. Pediatrics, 2009, 124, e964-e972.	2.1	100
137	219 A CLINICAL AND IMAGING PROTOCOL FOR THE DETAILED EVALUATION OF CHRONIC NEUROPATHIC PAIN IN MULTIPLE SCLEROSIS. European Journal of Pain, 2009, 13, S71a.	2.8	0
138	486 CHRONIC NEUROPATHIC PAIN IN MULTIPLE SCLEROSIS: CLINICAL AND IMAGING FINDINGS, WITH A SPECIAL FOCUS ON THE THALAMUS. European Journal of Pain, 2009, 13, S144b.	2.8	0
139	Imaging Structure and Function. , 2009, , 461-480.		3
140	MR Diffusion Tractography. , 2009, , 333-351.		23
141	Multiple-subjects connectivity-based parcellation using hierarchical Dirichlet process mixture models. Neurolmage, 2009, 44, 373-384.	4.2	85
142	Determination of the human brainstem respiratory control network and its cortical connections in vivo using functional and structural imaging. NeuroImage, 2009, 44, 295-305.	4.2	143
143	High resolution diffusion-weighted imaging in fixed human brain using diffusion-weighted steady state free precession. Neurolmage, 2009, 46, 775-785.	4.2	166
144	In vivo evidence for the selective subcortical degeneration in Huntington's disease. NeuroImage, 2009, 46, 958-966.	4.2	185

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145	MRI characteristics of the substantia nigra in Parkinson's disease: A combined quantitative T1 and DTI study. Neurolmage, 2009, 47, 435-441.	4.2	163
146	Bayesian analysis of neuroimaging data in FSL. NeuroImage, 2009, 45, S173-S186.	4.2	2,074
147	Integration of Measures of Functional and Structural MRI. Neuromethods, 2009, , 785-809.	0.3	0
148	Changes in connectivity after visual cortical brain damage underlie altered visual function. Brain, 2008, 131, 1433-1444.	7.6	226
149	Accurate Anisotropic Fast Marching for Diffusion-Based Geodesic Tractography. International Journal of Biomedical Imaging, 2008, 2008, 1-12.	3.9	91
150	Preoperative estimation of residual volume for WHO grade II glioma resected with intraoperative functional mapping. Neuro-Oncology, 2007, 9, 63-69.	1.2	92
151	Probabilistic diffusion tractography with multiple fibre orientations: What can we gain?. NeuroImage, 2007, 34, 144-155.	4.2	3,129
152	Symmetrical event-related EEG/fMRI information fusion in a variational Bayesian framework. Neurolmage, 2007, 36, 69-87.	4.2	189
153	A Bayesian framework for global tractography. Neurolmage, 2007, 37, 116-129.	4.2	243
154	Diffusion-Weighted Imaging Tractography-Based Parcellation of the Human Lateral Premotor Cortex Identifies Dorsal and Ventral Subregions with Anatomical and Functional Specializations. Journal of Neuroscience, 2007, 27, 10259-10269.	3.6	303
155	Identification of large-scale networks in the brain using fMRI. Neurolmage, 2006, 29, 1231-1243.	4.2	140
156	Simulation of anisotropic growth of low-grade gliomas using diffusion tensor imaging. Magnetic Resonance in Medicine, 2005, 54, 616-624.	3.0	247