Fernando Calamante

List of Publications by Year
in descending order

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125 papers	15,029 citations	41344 49 h-index	21540 114 g-index
135 all docs	135 docs citations	135 times ranked	12002 citing authors

#	Article	IF	Citations
1	Robust determination of the fibre orientation distribution in diffusion MRI: Non-negativity constrained super-resolved spherical deconvolution. NeuroImage, 2007, 35, 1459-1472.	4.2	1,860
2	Direct estimation of the fiber orientation density function from diffusion-weighted MRI data using spherical deconvolution. NeuroImage, 2004, 23, 1176-1185.	4.2	1,466
3	MRtrix: Diffusion tractography in crossing fiber regions. International Journal of Imaging Systems and Technology, 2012, 22, 53-66.	4.1	1,191
4	Anatomically-constrained tractography: Improved diffusion MRI streamlines tractography through effective use of anatomical information. NeuroImage, 2012, 62, 1924-1938.	4.2	897
5	Measuring Cerebral Blood Flow Using Magnetic Resonance Imaging Techniques. Journal of Cerebral Blood Flow and Metabolism, 1999, 19, 701-735.	4.3	607
6	Gadolinium deposition in the brain: summary of evidence and recommendations. Lancet Neurology, The, 2017, 16, 564-570.	10.2	600
7	SIFT: Spherical-deconvolution informed filtering of tractograms. NeuroImage, 2013, 67, 298-312.	4.2	573
8	Resolving crossing fibres using constrained spherical deconvolution: Validation using diffusion-weighted imaging phantom data. NeuroImage, 2008, 42, 617-625.	4.2	524
9	SIFT2: Enabling dense quantitative assessment of brain white matter connectivity using streamlines tractography. NeuroImage, 2015, 119, 338-351.	4.2	506
10	Delay and dispersion effects in dynamic susceptibility contrast MRI: Simulations using singular value decomposition. Magnetic Resonance in Medicine, 2000, 44, 466-473.	3.0	446
11	White matter fiber tractography: why we need to move beyond DTI. Journal of Neurosurgery, 2013, 118, 1367-1377.	1.6	386
12	Track-density imaging (TDI): Super-resolution white matter imaging using whole-brain track-density mapping. NeuroImage, 2010, 53, 1233-1243.	4.2	361
13	Determination of the appropriate b value and number of gradient directions for highâ€angularâ€resolution diffusionâ€weighted imaging. NMR in Biomedicine, 2013, 26, 1775-1786.	2.8	346
14	The effects of SIFT on the reproducibility and biological accuracy of the structural connectome. NeuroImage, 2015, 104, 253-265.	4.2	213
15	Acute Stroke Imaging Research Roadmap II. Stroke, 2013, 44, 2628-2639.	2.0	192
16	The contribution of geometry to the human connectome. NeuroImage, 2016, 124, 379-393.	4.2	181
17	Perfusion Magnetic Resonance Imaging: A Comprehensive Update on Principles and Techniques. Korean Journal of Radiology, 2014, 15, 554.	3.4	177
18	Arterial input function in perfusion MRI: A comprehensive review. Progress in Nuclear Magnetic Resonance Spectroscopy, 2013, 74, 1-32.	7.5	174

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19	The Physiological Significance of the Time-to-Maximum (Tmax) Parameter in Perfusion MRI. Stroke, 2010, 41, 1169-1174.	2.0	161
20	Defining a local arterial input function for perfusion MRI using independent component analysis. Magnetic Resonance in Medicine, 2004, 52, 789-797.	3.0	158
21	Contralateral cerebello-thalamo-cortical pathways with prominent involvement of associative areas in humans in vivo. Brain Structure and Function, 2015, 220, 3369-3384.	2.3	154
22	Contralateral cortico-ponto-cerebellar pathways reconstruction in humans in vivo: implications for reciprocal cerebro-cerebellar structural connectivity in motor and non-motor areas. Scientific Reports, 2017, 7, 12841.	3.3	152
23	Early changes in water diffusion, perfusion, T1, and T2 during focal cerebral ischemia in the rat studied at 8.5 T. Magnetic Resonance in Medicine, 1999, 41, 479-485.	3.0	130
24	Quantification of bolus-tracking MRI: Improved characterization of the tissue residue function using Tikhonov regularization. Magnetic Resonance in Medicine, 2003, 50, 1237-1247.	3.0	122
25	The measurement of diffusion and perfusion in biological systems using magnetic resonance imaging. Physics in Medicine and Biology, 2000, 45, R97-R138.	3.0	112
26	Super-resolution track-density imaging studies of mouse brain: Comparison to histology. NeuroImage, 2012, 59, 286-296.	4.2	105
27	Estimation of bolus dispersion effects in perfusion MRI using image-based computational fluid dynamics. NeuroImage, 2003, 19, 341-353.	4.2	102
28	Sampling and reconstruction effects due to motion in diffusion-weighted interleaved echo planar imaging. Magnetic Resonance in Medicine, 2000, 44, 101-109.	3.0	101
29	The 39 steps: evading error and deciphering the secrets for accurate dynamic susceptibility contrast MRI. NMR in Biomedicine, 2013, 26, 913-931.	2.8	98
30	Tractography dissection variability: What happens when 42 groups dissect 14 white matter bundles on the same dataset?. NeuroImage, 2021, 243, 118502.	4.2	94
31	Track density imaging (TDI): Validation of super resolution property. NeuroImage, 2011, 56, 1259-1266.	4.2	92
32	Perfusion magnetic resonance abnormalities in patients with sickle cell disease. Annals of Neurology, 2001, 49, 477-485.	5.3	83
33	A Model for Quantification of Perfusion in Pulsed Labelling Techniques. NMR in Biomedicine, 1996, 9, 79-83.	2.8	78
34	Individual deviations from normative models of brain structure in a large cross-sectional schizophrenia cohort. Molecular Psychiatry, 2021, 26, 3512-3523.	7.9	78
35	A generalised framework for super-resolution track-weighted imaging. NeuroImage, 2012, 59, 2494-2503.	4.2	77
36	Bolus delay and dispersion in perfusion MRI: Implications for tissue predictor models in stroke. Magnetic Resonance in Medicine, 2006, 55, 1180-1185.	3.0	76

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37	A software tool to generate simulated white matter structures for the assessment of fibre-tracking algorithms. NeuroImage, 2009, 47, 1288-1300.	4.2	75
38	Is quantification of bolus tracking MRI reliable without deconvolution?. Magnetic Resonance in Medicine, 2002, 47, 61-67.	3.0	69
39	Implementation of quantitative FAIR perfusion imaging with a short repetition time in time-course studies. Magnetic Resonance in Medicine, 1999, 41, 829-840.	3.0	68
40	Bolus dispersion issues related to the quantification of perfusion MRI data. Journal of Magnetic Resonance Imaging, 2005, 22, 718-722.	3.4	68
41	Contrast agent concentration measurements affecting quantification of bolusâ€tracking perfusion MRI. Magnetic Resonance in Medicine, 2007, 58, 544-553.	3.0	67
42	Effects of diffusion anisotropy on lesion delineation in a rat model of cerebral ischemia. Magnetic Resonance in Medicine, 1997, 38, 662-668.	3.0	65
43	Correction for diffusion MRI fibre tracking biases: The consequences for structural connectomic metrics. NeuroImage, 2016, 142, 150-162.	4.2	65
44	Diffusion-weighted magnetic resonance imaging fibre tracking using a front evolution algorithm. NeuroImage, 2003, 20, 276-288.	4.2	64
45	Is removal of weak connections necessary for graph-theoretical analysis of dense weighted structural connectomes from diffusion MRI?. NeuroImage, 2019, 194, 68-81.	4.2	64
46	Hemodynamics in normal cerebral arteries: qualitative comparison of 4D phase-contrast magnetic resonance and image-based computational fluid dynamics. Journal of Engineering Mathematics, 2009, 64, 367-378.	1.2	63
47	The Seven Deadly Sins of Measuring Brain Structural Connectivity Using Diffusion MRI Streamlines Fibre-Tracking. Diagnostics, 2019, 9, 115.	2.6	63
48	Super-resolution track-density imaging of thalamic substructures: Comparison with high-resolution anatomical magnetic resonance imaging at 7.0T. Human Brain Mapping, 2013, 34, 2538-2548.	3.6	61
49	Correction for eddy current induced Bo shifts in diffusion-weighted echo-planar imaging. Magnetic Resonance in Medicine, 1999, 41, 95-102.	3.0	60
50	Sickle cell disease: Ischemia and seizures. Annals of Neurology, 2005, 58, 290-302.	5.3	54
51	Improved deconvolution of perfusion MRI data in the presence of bolus delay and dispersion. Magnetic Resonance in Medicine, 2006, 56, 146-156.	3.0	51
52	Track-weighted imaging methods: extracting information from a streamlines tractogram. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2017, 30, 317-335.	2.0	46
53	Diffusion and Perfusion Magnetic Resonance Imaging in Childhood Stroke. Journal of Child Neurology, 2000, 15, 279-283.	1.4	44
54	Perfusion MRI Using Dynamic-Susceptibility Contrast MRI. Topics in Magnetic Resonance Imaging, 2010, 21, 75-85.	1.2	44

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55	Quantification of voxel-wise total fibre density: Investigating the problems associated with track-count mapping. NeuroImage, 2015, 117, 284-293.	4.2	44
56	Nonlinear Î”R effects in perfusion quantification using bolusâ€tracking MRI. Magnetic Resonance in Medicine, 2009, 61, 486-492.	3.0	43
57	Reduction of errors in ASL cerebral perfusion and arterial transit time maps using image deâ€noising. Magnetic Resonance in Medicine, 2010, 64, 715-724.	3.0	43
58	Acute changes in MRI diffusion, perfusion,T1, andT2 in a rat model of oligemia produced by partial occlusion of the middle cerebral artery. Magnetic Resonance in Medicine, 2000, 44, 706-712.	3.0	42
59	Inferring origin of vascular supply from tracer arrival timing patterns using bolus tracking MRI. Journal of Magnetic Resonance Imaging, 2008, 27, 1371-1381.	3.4	42
60	Graph analysis of resting-state ASL perfusion MRI data: Nonlinear correlations among CBF and network metrics. NeuroImage, 2014, 87, 265-275.	4.2	41
61	Track-weighted functional connectivity (TW-FC): A tool for characterizing the structuralâ€“functional connections in the brain. NeuroImage, 2013, 70, 199-210.	4.2	40
62	Arterial Spin-Labeling Improves Detection of Intracranial Dural Arteriovenous Fistulas with MRI. American Journal of Neuroradiology, 2018, 39, 669-677.	2.4	37
63	Quantification of track-weighted imaging (TWI): Characterisation of within-subject reproducibility and between-subject variability. NeuroImage, 2014, 87, 18-31.	4.2	36
64	Increased cerebral blood flow with increased amyloid burden in the preclinical phase of alzheimer's disease. Journal of Magnetic Resonance Imaging, 2020, 51, 505-513.	3.4	35
65	Improved partial volume correction for single inversion time arterial spin labeling data. Magnetic Resonance in Medicine, 2013, 69, 531-537.	3.0	33
66	The role of wholeâ€brain diffusion MRI as a tool for studying human in vivo cortical segregation based on a measure of neurite density. Magnetic Resonance in Medicine, 2018, 79, 2738-2744.	3.0	33
67	Network communication models narrow the gap between the modular organization of structural and functional brain networks. NeuroImage, 2022, 257, 119323.	4.2	32
68	The effect of residual Nyquist ghost in quantitative echo-planar diffusion imaging. Magnetic Resonance in Medicine, 1999, 42, 385-392.	3.0	31
69	Validating a Local Arterial Input Function Method for Improved Perfusion Quantification in Stroke. Journal of Cerebral Blood Flow and Metabolism, 2011, 31, 2189-2198.	4.3	31
70	Connectomes from streamlines tractography: Assigning streamlines to brain parcellations is not trivial but highly consequential. NeuroImage, 2019, 199, 160-171.	4.2	31
71	New criterion to aid manual and automatic selection of the arterial input function in dynamic susceptibility contrast MRI. Magnetic Resonance in Medicine, 2011, 65, 448-456.	3.0	28
72	Recommended responsibilities for management of MR safety. Journal of Magnetic Resonance Imaging, 2016, 44, 1067-1069.	3.4	28

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73	Voxel-Wise Functional Connectomics Using Arterial Spin Labeling Functional Magnetic Resonance Imaging: The Role of Denoising. Brain Connectivity, 2015, 5, 543-553.	1.7	26
74	Analysis of perfusion MRI in stroke: To deconvolve, or not to deconvolve. Magnetic Resonance in Medicine, 2016, 76, 1282-1290.	3.0	26
75	A kâ€space sharing 3D GRASE pseudocontinuous ASL method for wholeâ€brain restingâ€state functional connectivity. International Journal of Imaging Systems and Technology, 2012, 22, 37-43.	4.1	25
76	Diffusion MRI tractography for neurosurgery: the basics, current state, technical reliability and challenges. Physics in Medicine and Biology, 2021, 66, 15TR01.	3.0	25
77	Linking Cortical and Connectional Pathology in Schizophrenia. Schizophrenia Bulletin, 2019, 45, 911-923.	4.3	24
78	Simultaneous noninvasive measurement of CBF and CBV using double-echo FAIR (DEFAIR). Magnetic Resonance in Medicine, 2001, 45, 853-863.	3.0	23
79	Periventricular Nodular Heterotopia: Detection of Abnormal Microanatomic Fiber Structures with Whole-Brain Diffusion MR Imaging Tractography. Radiology, 2016, 281, 896-906.	7.3	23
80	The effect of finite diffusion gradient pulse duration on fibre orientation estimation in diffusion MRI. NeuroImage, 2010, 51, 743-751.	4.2	22
81	Reproducibility of multiphase pseudo-continuous arterial spin labeling and the effect of post-processing analysis methods. NeuroImage, 2015, 117, 191-201.	4.2	22
82	Cortical abnormalities and language function in young patients with basal ganglia stroke. NeuroImage, 2007, 36, 431-440.	4.2	21
83	Visualization of mouse barrel cortex using ex-vivo track density imaging. NeuroImage, 2014, 87, 465-475.	4.2	21
84	Characterisation of white matter asymmetries in the healthy human brain using diffusion MRI fixel-based analysis. NeuroImage, 2021, 225, 117505.	4.2	21
85	A Newly Identified Frontal Path from Fornix in Septum Pellucidum with 7.0T MRI Track Density Imaging (TDI) â€“ The Septum Pellucidum Tract (SPT). Frontiers in Neuroanatomy, 2015, 9, 151.	1.7	19
86	Track-weighted dynamic functional connectivity (TW-dFC): a new method to study time-resolved functional connectivity. Brain Structure and Function, 2017, 222, 3761-3774.	2.3	19
87	A variable flip angle-based method for reducing blurring in 3D GRASE ASL. Physics in Medicine and Biology, 2014, 59, 5559-5573.	3.0	17
88	The Role of Bolus Delay and Dispersion in Predictor Models for Stroke. Stroke, 2012, 43, 1025-1031.	2.0	16
89	Enhanced characterization of the zebrafish brain as revealed by super-resolution track-density imaging. Brain Structure and Function, 2015, 220, 457-468.	2.3	16
90	Modeling and correction of bolus dispersion effects in dynamic susceptibility contrast MRI. Magnetic Resonance in Medicine, 2014, 72, 1762-1774.	3.0	15

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91	Mapping somatosensory connectivity in adult mice using diffusion MRI tractography and super-resolution track density imaging. NeuroImage, 2014, 102, 381-392.	4.2	15
92	Effect of combination and number of b values in IVIM analysis with post-processing methodology: simulation and clinical study. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2019, 32, 519-527.	2.0	15
93	Reperfusion in a Gerbil Model of Forebrain Ischemia Using Serial Magnetic Resonance FAIR Perfusion Imaging. Stroke, 1999, 30, 1263-1270.	2.0	14
94	A novel joint sparse partial correlation method for estimating group functional networks. Human Brain Mapping, 2016, 37, 1162-1177.	3.6	13
95	Perfusion precision in bolusâ€tracking MRI: Estimation using the wildâ€bootstrap method. Magnetic Resonance in Medicine, 2009, 61, 696-704.	3.0	12
96	A novel approach to measure local cerebral haematocrit using MRI. Journal of Cerebral Blood Flow and Metabolism, 2016, 36, 768-780.	4.3	12
97	Pictorial Review of In Vivo Human Brain: From Anatomy to Molecular Imaging. World Neurosurgery, 2014, 82, 72-95.	1.3	11
98	Mapping connectomes with diffusion MRI: Deterministic or probabilistic tractography?. Magnetic Resonance in Medicine, 2020, 83, 787-790.	3.0	11
99	MR system operator: Recommended minimum requirements for performing MRI in human subjects in a research setting. Journal of Magnetic Resonance Imaging, 2015, 41, 899-902.	3.4	10
100	Modeling the residue function in DSCâ€MRI simulations: Analytical approximation to in vivo data. Magnetic Resonance in Medicine, 2014, 72, 1486-1491.	3.0	9
101	FOD-Net: A deep learning method for fiber orientation distribution angular super resolution. Medical Image Analysis, 2022, 79, 102431.	11.6	9
102	IVIMâ€“DKIÂfor differentiation between prostate cancer and benign prostatic hyperplasia: comparison of 1.5ÂT vs. 3ÂT MRI. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2022, 35, 609-620.	2.0	7
103	TractLearn: A geodesic learning framework for quantitative analysis of brain bundles. NeuroImage, 2021, 233, 117927.	4.2	7
104	Correcting for large vessel contamination in dynamic susceptibility contrast perfusion MRI by extension to a physiological model of the vasculature. Magnetic Resonance in Medicine, 2015, 74, 280-290.	3.0	6
105	Fourier Tract Sampling (FouTS): A framework for improved inference of white matter tracts from diffusion MRI by explicitly modelling tract volume. NeuroImage, 2015, 120, 412-427.	4.2	6
106	Robust Identification of Rich-Club Organization in Weighted and Dense Structural Connectomes. Brain Topography, 2019, 32, 1-16.	1.8	6
107	Chelated or dechelated gadolinium deposition â€“ Authors' reply. Lancet Neurology, The, 2017, 16, 955-956.	10.2	5
108	A Novel Group-Fused Sparse Partial Correlation Method for Simultaneous Estimation of Functional Networks in Group Comparison Studies. Brain Topography, 2018, 31, 364-379.	1.8	5

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109	Perfusion magnetic resonance abnormalities in patients with sickle cell disease. Annals of Neurology, 2001, 49, 477-485.	5.3	5
110	Markov Chain Monte Carlo Random Effects Modeling in Magnetic Resonance Image Processing Using theBRugsInterface toWinBUGS. Journal of Statistical Software, 2011, 44, .	3.7	5
111	Multi-stage automated local arterial input function selection in perfusion MRI. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2020, 33, 357-365.	2.0	4
112	Restâ€“activity functioning is related to white matter microarchitecture and modifiable risk factors in older adults at-risk for dementia. Sleep, 2021, 44, .	1.1	4
113	Notes on â€œA cautionary note on the use of SIFT in pathological connectomesâ€• Magnetic Resonance in Medicine, 2020, 84, 2303-2307.	3.0	3
114	Automated Perfusion-Diffusion Magnetic Resonance Imaging in Childhood Arterial Ischemic Stroke. Stroke, 2021, 52, 3296-3304.	2.0	3
115	Diffusion MRI Fiber Tractography. Advances in Magnetic Resonance Technology and Applications, 2020, 1, 533-569.	0.1	3
116	A Novel Method for Extracting Hierarchical Functional Subnetworks Based on a Multisubject Spectral Clustering Approach. Brain Connectivity, 2019, 9, 399-414.	1.7	2
117	Investigating white matter structure in social anxiety disorder using fixel-based analysis. Journal of Psychiatric Research, 2021, 143, 30-37.	3.1	2
118	Delay and dispersion effects in dynamic susceptibility contrast MRI: Simulations using singular value decomposition. Magnetic Resonance in Medicine, 2000, 44, 466-473.	3.0	2
119	A robust framework for characterising diffusion metrics of the median and ulnar nerves: Exploiting stateâ€ofâ€theâ€art tracking methods. Journal of the Peripheral Nervous System, 2022, 27, 67-83.	3.1	2
120	CONN-NLM: A Novel CONNectome-Based Non-local Means Filter for PET-MRI Denoising. Frontiers in Neuroscience, 2022, 16, .	2.8	2
121	Mouse Brain Kaleidoscope. Neurology, 2012, 79, 1829-1829.	1.1	1
122	Guidelines for documentation and consent for nonclinical, nonresearch MRI in human subjects. Journal of Magnetic Resonance Imaging, 2017, 45, 36-41.	3.4	1
123	Delay and dispersion effects in dynamic susceptibility contrast MRI: Simulations using singular value decomposition. , 2000, 44, 466.		1
124	P1â€440: INCREASED CEREBRAL BLOOD FLOW WITH INCREASED AMYLOID BURDEN IN PRECLINICAL AD. Alzheimer's and Dementia, 2018, 14, P479.	0.8	0
125	Perfusion Magnetic Resonance Imaging Quantification in the Brain. Neuromethods, 2012, , 283-312.	0.3	0