David W Carmichael

List of Publications by Year
in descending order

76 papers	3,350 citations	147801 31 h-index	161849 54 g-index
84 all docs	84 docs citations	84 times ranked	4166 citing authors

#	Article	IF	Citations
1	Modelling large motion events in fMRI studies of patients with epilepsy. Magnetic Resonance Imaging, 2007, 25, 894-901.	1.8	222
2	Network Connectivity in Epilepsy: Resting State fMRI and EEGÃ¢â‚¬â€œfMRI Contributions. Frontiers in Neurology, 2014, 5, 93.	2.4	159
3	Externally induced frontoparietal synchronization modulates network dynamics and enhances working memory performance. ELife, 2017, 6, .	6.0	147
4	Causal Hierarchy within the Thalamo-Cortical Network in Spike and Wave Discharges. PLoS ONE, 2009, 4, e6475.	2.5	141
5	Electrophysiological correlates of the BOLD signal for EEG-informed fMRI. Human Brain Mapping, 2015, 36, 391-414.	3.6	137
6	Simultaneous intracranial EEG and fMRI of interictal epileptic discharges in humans. NeuroImage, 2011, 54, 182-190.	4.2	124
7	EEG correlated functional MRI and postoperative outcome in focal epilepsy. Journal of Neurology, Neurosurgery and Psychiatry, 2010, 81, 922-927.	1.9	122
8	Epileptic networks in focal cortical dysplasia revealed using electroencephalographyâ€“functional magnetic resonance imaging. Annals of Neurology, 2011, 70, 822-837.	5.3	116
9	Brain state and polarity dependent modulation of brain networks by transcranial direct current stimulation. Human Brain Mapping, 2019, 40, 904-915.	3.6	108
10	Functional MRI with active, fully implanted, deep brain stimulation systems: Safety and experimental confounds. NeuroImage, 2007, 37, 508-517.	4.2	103
11	BOLD and perfusion changes during epileptic generalised spike wave activity. NeuroImage, 2008, 39, 608-618.	4.2	95
12	Noncanonical spike-related BOLD responses in focal epilepsy. Human Brain Mapping, 2007, 29, 329-345.	3.6	91
13	Relating resting-state fMRI and EEG whole-brain connectomes across frequency bands. Frontiers in Neuroscience, 2014, 8, 258.	2.8	89
14	Current use of imaging and electromagnetic source localization procedures in epilepsy surgery centers across Europe. Epilepsia, 2016, 57, 770-776.	5.1	89
15	Feasibility of simultaneous intracranial EEG-fMRI in humans: A safety study. NeuroImage, 2010, 49, 379-390.	4.2	85
16	Connectivity of the supplementary motor area in juvenile myoclonic epilepsy and frontal lobe epilepsy. Epilepsia, 2011, 52, 507-514.	5.1	85
17	Novel surface features for automated detection of focal cortical dysplasias in paediatric epilepsy. NeuroImage: Clinical, 2017, 14, 18-27.	2.7	84
18	Safety of localizing epilepsy monitoring intracranial electroencephalograph electrodes using MRI: Radiofrequencyâ€induced heating. Journal of Magnetic Resonance Imaging, 2008, 28, 1233-1244.	3.4	74

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19	Cascades and Cognitive State: Focused Attention Incurs Subcritical Dynamics. Journal of Neuroscience, 2015, 35, 4626-4634.	3.6	71
20	EEG-fMRI in the presurgical evaluation of temporal lobe epilepsy. Journal of Neurology, Neurosurgery and Psychiatry, 2016, 87, 642-649.	1.9	69
21	Mapping preictal and ictal haemodynamic networks using video-electroencephalography and functional imaging. Brain, 2012, 135, 3645-3663.	7.6	61
22	NODDI and Tensor-Based Microstructural Indices as Predictors of Functional Connectivity. PLoS ONE, 2016, 11, e0153404.	2.5	60
23	Dynamic brain network states in human generalized spike-wave discharges. Brain, 2018, 141, 2981-2994.	7.6	56
24	FIACH: A biophysical model for automatic retrospective noise control in fMRI. NeuroImage, 2016, 124, 1009-1020.	4.2	53
25	Towards network-guided neuromodulation for epilepsy. Brain, 2022, 145, 3347-3362.	7.6	51
26	Networks involved in seizure initiation. Neurology, 2012, 79, 249-253.	1.1	48
27	Combined electroencephalographyâ€“functional magnetic resonance imaging and electrical source imaging improves localization of pediatric focal epilepsy. Annals of Neurology, 2017, 82, 278-287.	5.3	45
28	Mapping effective connectivity in the human brain with concurrent intracranial electrical stimulation and BOLD-fMRI. Journal of Neuroscience Methods, 2017, 277, 101-112.	2.5	39
29	Thalamic volume reduction in drugâ€naive patients with newâ€onset genetic generalized epilepsy. Epilepsia, 2018, 59, 226-234.	5.1	38
30	Epileptic networks are strongly connected with and without the effects of interictal discharges. Epilepsia, 2016, 57, 1086-1096.	5.1	36
31	Towards motion insensitive EEG-fMRI: Correcting motion-induced voltages and gradient artefact instability in EEG using an fMRI prospective motion correction (PMC) system. NeuroImage, 2016, 138, 13-27.	4.2	35
32	Towards in vivo focal cortical dysplasia phenotyping using quantitative MRI. NeuroImage: Clinical, 2017, 15, 95-105.	2.7	34
33	The effect of local perturbation fields on human DTI: Characterisation, measurement and correction. NeuroImage, 2012, 60, 562-570.	4.2	33
34	Interictal activity is an important contributor to abnormal intrinsic network connectivity in paediatric focal epilepsy. Human Brain Mapping, 2017, 38, 221-236.	3.6	33
35	Simultaneous Intracranial EEG-fMRI Shows Inter-Modality Correlation in Time-Resolved Connectivity Within Normal Areas but Not Within Epileptic Regions. Brain Topography, 2017, 30, 639-655.	1.8	32
36	Optimising EEG-fMRI for Localisation of Focal Epilepsy in Children. PLoS ONE, 2016, 11, e0149048.	2.5	32

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37	Cognitive enhancement with Salience Network electrical stimulation is influenced by network structural connectivity. NeuroImage, 2019, 185, 425-433.	4.2	30
38	An investigation of the relationship between BOLD and perfusion signal changes during epileptic generalised spike wave activity. Magnetic Resonance Imaging, 2008, 26, 870-873.	1.8	29
39	Traumatic axonal injury influences the cognitive effect of non-invasive brain stimulation. Brain, 2019, 142, 3280-3293.	7.6	25
40	Generalized Spike and Waves: Effect of Discharge Duration on Brain Networks as Revealed by BOLD fMRI. Brain Topography, 2014, 27, 123-137.	1.8	24
41	Improving whole brain structural MRI at 4.7 Tesla using 4 irregularly shaped receiver coils. NeuroImage, 2006, 32, 1176-1184.	4.2	23
42	Diffusion-weighted perinatal postmortem magnetic resonance imaging as a marker of postmortem interval. European Radiology, 2015, 25, 1399-1406.	4.5	23
43	Mapping human preictal and ictal haemodynamic networks using simultaneous intracranial EEG-fMRI. NeuroImage: Clinical, 2016, 11, 486-493.	2.7	20
44	Optimal repetition time reduction for single subject eventâ€related functional magnetic resonance imaging. Magnetic Resonance in Medicine, 2019, 81, 1890-1897.	3.0	20
45	Imaging the interaction: Epileptic discharges, working memory, and behavior. Human Brain Mapping, 2013, 34, 2910-2917.	3.6	17
46	Sensorimotor network hypersynchrony as an endophenotype in families with genetic generalized epilepsy: A restingâ€state functional magnetic resonance imaging study. Epilepsia, 2019, 60, e14-e19.	5.1	16
47	MRI profiling of focal cortical dysplasia using multiâ€compartment diffusion models. Epilepsia, 2020, 61, 433-444.	5.1	16
48	Implementation and evaluation of simultaneous video-electroencephalography and functional magnetic resonance imaging. Magnetic Resonance Imaging, 2010, 28, 1192-1199.	1.8	15
49	Neural Activity Elicited by a Cognitive Task can be Detected in Single-Trials with Simultaneous Intracerebral EEG-fMRI Recordings. International Journal of Neural Systems, 2017, 27, 1750001.	5.2	14
50	Safety of Simultaneous Scalp or Intracranial EEG during MRI: A Review. Frontiers in Physics, 2017, 5, .	2.1	13
51	Greater Hypoxia-Induced Cell Death in Prenatal Brain after Bacterial-Endotoxin Pretreatment is not Because of Enhanced Cerebral Energy Depletion: A Chicken Embryo Model of the Intrapartum Response to Hypoxia and Infection. Journal of Cerebral Blood Flow and Metabolism, 2008, 28, 948-960.	4.3	12
52	Flexible proton density (PD) mapping using multi-contrast variable flip angle (VFA) data. NeuroImage, 2019, 186, 464-475.	4.2	12
53	Functional Connectivity of the Anterior Nucleus of the Thalamus in Pediatric Focal Epilepsy. Frontiers in Neurology, 2021, 12, 670881.	2.4	12
54	Quantitative MRI susceptibility mapping reveals cortical signatures of changes in iron, calcium and zinc in malformations of cortical development in children with drug-resistant epilepsy. NeuroImage, 2021, 238, 118102.	4.2	11

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55	Diagnostic value of MRI in the presurgical evaluation of patients with epilepsy: influence of field strength and sequence selection: a systematic review and metaâ€analysis from the Eâ€PILEPSY Consortium. Epileptic Disorders, 2022, 24, 323-342.	1.3	11
56	Method for spatially interleaving two images to halve EPI readout times: Two reduced acquisitions interleaved (TRAIL). Magnetic Resonance in Medicine, 2004, 51, 1212-1222.	3.0	10
57	BOLD mapping of human epileptic spikes recorded during simultaneous intracranial EEG-fMRI: The impact of automated spike classification. NeuroImage, 2019, 184, 981-992.	4.2	10
58	Looking for neuronal currents using MRI: An EEG-fMRI investigation of fast MR signal changes time-locked to frequent focal epileptic discharges. NeuroImage, 2010, 50, 1109-1117.	4.2	9
59	A Comparison of Independent Component Analysis (ICA) of fMRI and Electrical Source Imaging (ESI) in Focal Epilepsy Reveals Misclassification Using a Classifier. Brain Topography, 2015, 28, 813-831.	1.8	9
60	Common SENSE (sensitivity encoding using hardware common to all MR scanners): A new method for single-shot segmented echo planar imaging. Magnetic Resonance in Medicine, 2005, 54, 402-410.	3.0	7
61	Multimodal computational neocortical anatomy in pediatric hippocampal sclerosis. Annals of Clinical and Translational Neurology, 2018, 5, 1200-1210.	3.7	7
62	Evaluation of DISORDER: Retrospective Image Motion Correction for Volumetric Brain MRI in a Pediatric Setting. American Journal of Neuroradiology, 2021, 42, 774-781.	2.4	6
63	Reducing ghosting due to k-space discontinuities in fast spin echo (FSE) imaging by a new combination of k-space ordering and parallel imaging. Journal of Magnetic Resonance, 2009, 200, 119-125.	2.1	5
64	Temperature Measurements in the Vicinity of Human Intracranial EEG Electrodes Exposed to Body-Coil RF for MRI at 1.5T. Frontiers in Neuroscience, 2020, 14, 429.	2.8	5
65	Investigating the interaction between white matter and brain state on tDCS-induced changes in brain network activity. Brain Stimulation, 2021, 14, 1261-1270.	1.6	5
66	Mapping Epileptic Networks Using Simultaneous Intracranial EEG-fMRI. Frontiers in Neurology, 2021, 12, 693504.	2.4	5
67	Unified Retrospective EEG Motion Educated Artefact Suppression for EEG-fMRI to Suppress Magnetic Field Gradient Artefacts During Motion. Brain Topography, 2021, 34, 745-761.	1.8	4
68	Evaluation of specific absorption rate and heating in children exposed to a <scp>7T MRI</scp> head coil. Magnetic Resonance in Medicine, 2022, 88, 1434-1449.	3.0	4
69	Subpixel Enhancement of Nonuniform Tissue (SPENT): A Novel MRI Technique for Quantifying BMD. Journal of Bone and Mineral Research, 2009, 24, 324-333.	2.8	3
70	High resolution isotropic diffusion imaging in post-mortem neonates: a feasibility study. British Journal of Radiology, 2018, 91, 20180319.	2.2	3
71	Safety of intracranial electroencephalography during functional magnetic resonance imaging in humans at 1.5 tesla using a head transmit RF coil: Histopathological and heat-shock immunohistochemistry observations. NeuroImage, 2022, 254, 119129.	4.2	3
72	Neural diffusivity and pre-emptive epileptic seizure intervention. PLoS Computational Biology, 2020, 16, e1008448.	3.2	1

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73	BRAIN NETWORK MODULATION WITH NON-INVASIVE BRAIN STIMULATION. Journal of Neurology, Neurosurgery and Psychiatry, 2016, 87, e1.130-e1.	1.9	0
74	Multiparametric mapping in post-mortem perinatal MRI: a feasibility study. British Journal of Radiology, 2020, 93, 20190952.	2.2	0
75	Image Quality Issues. , 2009, , 173-199.		0
76	Automatic Detection of Neonatal Brain Injury on MRI. Lecture Notes in Computer Science, 2020, , 324-333.	1.3	0