

Bruno Maraviglia

List of Publications by Year in descending order

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96
papers

2,923
citations

147726

31
h-index

197736

49
g-index

100
all docs

100
docs citations

100
times ranked

3403
citing authors

#	ARTICLE	IF	CITATIONS
1	Sustained Neuronal Activation Raises Oxidative Metabolism to a New Steady-State Level: Evidence from 1H NMR Spectroscopy in the Human Visual Cortex. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2007, 27, 1055-1063.	2.4	253
2	Metabolic and Hemodynamic Events after Changes in Neuronal Activity: Current Hypotheses, Theoretical Predictions and <i>in vivo</i> NMR Experimental Findings. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2009, 29, 441-463.	2.4	143
3	Sensitivity of single-voxel 1H-MRS in investigating the metabolism of the activated human visual cortex at 7 T. <i>Magnetic Resonance Imaging</i> , 2006, 24, 343-348.	1.0	115
4	Glycogenolysis in Astrocytes Supports Blood-Borne Glucose Channeling Not Glycogen-Derived Lactate Shuttling to Neurons: Evidence from Mathematical Modeling. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2010, 30, 1895-1904.	2.4	93
5	The aerobic brain: lactate decrease at the onset of neural activity. <i>Neuroscience</i> , 2003, 118, 7-10.	1.1	91
6	Non-Gaussian diffusion imaging: a brief practical review. <i>Magnetic Resonance Imaging</i> , 2011, 29, 1410-1416.	1.0	85
7	Real-time MR artifacts filtering during continuous EEG/fMRI acquisition. <i>Magnetic Resonance Imaging</i> , 2003, 21, 1175-1189.	1.0	83
8	Changes in Glucose Uptake Rather than Lactate Shuttle Take Center Stage in Subserving Neuroenergetics: Evidence from Mathematical Modeling. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2010, 30, 586-602.	2.4	79
9	The Role of Astrocytic Glycogen in Supporting the Energetics of Neuronal Activity. <i>Neurochemical Research</i> , 2012, 37, 2432-2438.	1.6	76
10	Issues about the fMRI of the human spinal cord. <i>Magnetic Resonance Imaging</i> , 2004, 22, 1505-1516.	1.0	72
11	Diffusion-weighted magnetic resonance imaging in patients with partial status epilepticus. <i>Epilepsia</i> , 2009, 50, 45-52.	2.6	64
12	Physiological bases of the K ⁺ and the glutamate/GABA hypotheses of epilepsy. <i>Epilepsy Research</i> , 2014, 108, 995-1012.	0.8	60
13	Realistic simulations of neuronal activity: A contribution to the debate on direct detection of neuronal currents by MRI. <i>NeuroImage</i> , 2008, 39, 87-106.	2.1	55
14	Challenges for detection of neuronal currents by MRI. <i>Magnetic Resonance Imaging</i> , 2006, 24, 483-493.	1.0	54
15	An independent component analysis-based approach on ballistocardiogram artifact removing. <i>Magnetic Resonance Imaging</i> , 2006, 24, 393-400.	1.0	50
16	Images-based suppression of unwanted global signals in resting-state functional connectivity studies. <i>Magnetic Resonance Imaging</i> , 2009, 27, 1058-1064.	1.0	50
17	Why does the brain (not) have glycogen?. <i>BioEssays</i> , 2011, 33, 319-326.	1.2	49
18	Anisotropic anomalous diffusion assessed in the human brain by scalar invariant indices. <i>Magnetic Resonance in Medicine</i> , 2011, 65, 1043-1052.	1.9	43

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19	Intrinsic Patterns of Coupling between Correlation and Amplitude of Low-Frequency fMRI Fluctuations Are Disrupted in Degenerative Dementia Mainly due to Functional Disconnection. PLoS ONE, 2015, 10, e0120988.	1.1	43
20	Characterization of trabecular bone by dipolar demagnetizing field MRI. Magnetic Resonance in Medicine, 2001, 46, 683-689.	1.9	41
21	Combination of BOLD-fMRI and VEP recordings for spin-echo MRI detection of primary magnetic effects caused by neuronal currents. Magnetic Resonance Imaging, 2004, 22, 1429-1440.	1.0	40
22	Computational Flux Balance Analysis Predicts that Stimulation of Energy Metabolism in Astrocytes and their Metabolic Interactions with Neurons Depend on Uptake of K ⁺ Rather than Glutamate. Neurochemical Research, 2017, 42, 202-216.	1.6	39
23	White Matter Microstructure and Apathy Level in Amnesic Mild Cognitive Impairment. Journal of Alzheimer's Disease, 2010, 20, 501-507.	1.2	38
24	Energy metabolism and glutamate-glutamine cycle in the brain: a stoichiometric modeling perspective. BMC Systems Biology, 2013, 7, 103.	3.0	38
25	Identification of activated regions during a language task. Magnetic Resonance Imaging, 2007, 25, 933-938.	1.0	35
26	Water diffusion anisotropy in white and gray matter of the human spinal cord. Journal of Magnetic Resonance Imaging, 2008, 27, 476-482.	1.9	35
27	Drug resistant ADLTE and recurrent partial status epilepticus with dysphasic features in a family with a novel <i>LGII</i> mutation: electroclinical, genetic, and EEG/fMRI findings. Epilepsia, 2009, 50, 2481-2486.	2.6	35
28	The physiology and metabolism of neuronal activation: in vivo studies by NMR and other methods. Magnetic Resonance Imaging, 2003, 21, 1283-1293.	1.0	34
29	Regulatory mechanisms for glycogenolysis and K ⁺ uptake in brain astrocytes. Neurochemistry International, 2013, 63, 458-464.	1.9	34
30	Does abnormal glycogen structure contribute to increased susceptibility to seizures in epilepsy?. Metabolic Brain Disease, 2015, 30, 307-316.	1.4	34
31	<i>In vivo</i> ¹⁹ F MRI and ¹⁹ F MRS of ¹⁹ F-labelled boronophenylalanine-fructose complex on a C6 rat glioma model to optimize boron neutron capture therapy (BNCT). Physics in Medicine and Biology, 2008, 53, 6979-6989.	1.6	33
32	Neuronal current detection with low-field magnetic resonance: simulations and methods. Magnetic Resonance Imaging, 2009, 27, 1131-1139.	1.0	33
33	Simultaneous EEG-fMRI acquisition: how far is it from being a standardized technique?. Magnetic Resonance Imaging, 2004, 22, 1445-1455.	1.0	32
34	EEG/fMRI Study of Ictal and Interictal Epileptic Activity: Methodological Issues and Future Perspectives in Clinical Practice. Epilepsia, 2006, 47, 52-58.	2.6	32
35	Human erythrocyte membranes are fluid down to ~5°C. Biochimica Et Biophysica Acta - Biomembranes, 1982, 686, 137-140.	1.4	31
36	The effect of physiological noise in phase functional magnetic resonance imaging: from blood oxygen level-dependent effects to direct detection of neuronal currents. Magnetic Resonance Imaging, 2008, 26, 1026-1040.	1.0	31

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37	Disruption of Semantic Network in Mild Alzheimer's Disease Revealed by Resting-State fMRI. <i>Neuroscience</i> , 2018, 371, 38-48.	1.1	31
38	L-DOPA Preloading Increases the Uptake of Borophenylalanine in C6 Glioma Rat Model: A New Strategy to Improve BNCT Efficacy. <i>International Journal of Radiation Oncology Biology Physics</i> , 2008, 72, 562-567.	0.4	28
39	Spatio-temporal anomalous diffusion imaging: results in controlled phantoms and in excised human meningiomas. <i>Magnetic Resonance Imaging</i> , 2013, 31, 359-365.	1.0	28
40	Characterization of the functional response in the human spinal cord: Impulse-response function and linearity. <i>NeuroImage</i> , 2008, 42, 626-634.	2.1	27
41	Issues concerning the construction of a metabolic model for neuronal activation. <i>Journal of Neuroscience Research</i> , 2003, 71, 463-467.	1.3	26
42	Factors Affecting Early-Age Hydration of Ordinary Portland Cement Studied by NMR: Fineness, Water-to-Cement Ratio and Curing Temperature. <i>Applied Magnetic Resonance</i> , 2007, 32, 385-394.	0.6	26
43	Quantitative evaluation for brain CT/MRI coregistration based on maximization of mutual information in patients with focal epilepsy investigated with subdural electrodes. <i>Magnetic Resonance Imaging</i> , 2007, 25, 883-888.	1.0	25
44	In vivo quantitative ¹ H MRS of cerebellum and evaluation of quantitation reproducibility by simulation of different levels of noise and spectral resolution. <i>Magnetic Resonance Imaging</i> , 2004, 22, 1385-1393.	1.0	24
45	Diffusion tensor imaging to study anisotropy in a particular porous system: The trabecular bone network. <i>Solid State Nuclear Magnetic Resonance</i> , 2005, 28, 266-272.	1.5	24
46	Phase stability in fMRI time series: Effect of noise regression, off-resonance correction and spatial filtering techniques. <i>NeuroImage</i> , 2012, 59, 3748-3761.	2.1	23
47	Multi-nuclear MRS and ¹⁹ F MRI of ¹⁹ F-labelled and ¹⁰ B-enriched p-boronophenylalanine-fructose complex to optimize boron neutron capture therapy: phantom studies at high magnetic fields. <i>Physics in Medicine and Biology</i> , 2006, 51, 3141-3154.	1.6	21
48	On the impact of physiological noise in spinal cord functional MRI. <i>Journal of Magnetic Resonance Imaging</i> , 2014, 40, 770-777.	1.9	20
49	Ictal hemodynamic changes in late-onset rasmussen encephalitis. <i>Annals of Neurology</i> , 2006, 59, 432-433.	2.8	18
50	Boronophenylalanine uptake in C6 glioma model is dramatically increased by L-DOPA preloading. <i>Applied Radiation and Isotopes</i> , 2009, 67, S34-S36.	0.7	18
51	Monoaminergic Control of Cellular Glucose Utilization by Glycogenolysis in Neocortex and Hippocampus. <i>Neurochemical Research</i> , 2015, 40, 2493-2504.	1.6	18
52	In vivo multiple spin echoes imaging of trabecular bone on a clinical 1.5 T MR scanner. <i>Magnetic Resonance Imaging</i> , 2002, 20, 623-629.	1.0	17
53	Influence of Cellulosic Additives on Tricalcium Silicate Hydration: A Nuclear Magnetic Resonance Relaxation Time Analysis. <i>Journal of Physical Chemistry B</i> , 2004, 108, 4869-4874.	1.2	17
54	In vivo ¹⁹ F MR imaging and spectroscopy for the BNCT optimization. <i>Applied Radiation and Isotopes</i> , 2009, 67, S365-S368.	0.7	17

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55	Modeling the contribution of neuron-astrocyte cross talk to slow blood oxygenation level-dependent signal oscillations. <i>Journal of Neurophysiology</i> , 2011, 106, 3010-3018.	0.9	17
56	Direct excitation and detection of NMR narrowed rotating frame spin echo in solids. <i>Solid State Communications</i> , 1989, 70, 797-799.	0.9	16
57	Cerebellar metabolite alterations detected in vivo by proton MR spectroscopy. <i>Magnetic Resonance Imaging</i> , 2003, 21, 1201-1206.	1.0	16
58	Characterization of porous media structure by non linear NMR methods. <i>Magnetic Resonance Imaging</i> , 2001, 19, 319-323.	1.0	15
59	About the CRAZED sequence. <i>Concepts in Magnetic Resonance</i> , 2004, 21A, 22-36.	1.3	15
60	NMR and XRD Study on Calcium Sulfoaluminate Cement. <i>Applied Magnetic Resonance</i> , 2008, 35, 33-41.	0.6	15
61	Smoothing that does not blur: Effects of the anisotropic approach for evaluating diffusion tensor imaging data in the clinic. <i>Journal of Magnetic Resonance Imaging</i> , 2010, 31, 690-697.	1.9	15
62	fMRI study of motor cortex activity modulation in early Parkinson's disease. <i>Magnetic Resonance Imaging</i> , 2010, 28, 1152-1158.	1.0	15
63	Oriental disordering of the CH ₄ -Kr mixture induced by spin conversion at T < 1 K. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1981, 86, 490-492.	0.9	14
64	How the NPX data format handles EEG data acquired simultaneously with fMRI. <i>Magnetic Resonance Imaging</i> , 2007, 25, 1011-1014.	1.0	14
65	Metabolic correlates of brain activity in a FOS epilepsy patient. <i>NMR in Biomedicine</i> , 2010, 23, 170-178.	1.6	14
66	Solid state nuclear spin mapping by rotary saturation. <i>Solid State Communications</i> , 1992, 82, 151-156.	0.9	13
67	The influence of superplasticizers on the first steps of tricalcium silicate hydration studied by NMR techniques. <i>Magnetic Resonance Imaging</i> , 2005, 23, 277-284.	1.0	13
68	Microscopic investigation of the resonant mechanism for the implementation of nc-MRI at ultra-low field MRI. <i>NeuroImage</i> , 2008, 41, 1228-1241.	2.1	13
69	Low-Sensitivity-Nuclei Localization by Twin Spin-Echo Double-Resonance Excitation. <i>Journal of Magnetic Resonance Series A</i> , 1994, 107, 243-245.	1.6	12
70	Intermolecular double quantum coherences (iDQC) and diffusion-weighted imaging (DWI) imaging of the human brain at 1.5 T. <i>Magnetic Resonance Imaging</i> , 2003, 21, 1151-1157.	1.0	12
71	NMR applications to low porosity carbonate stones. <i>Magnetic Resonance Imaging</i> , 2003, 21, 799-804.	1.0	12
72	DTI of trabecular bone marrow. <i>Magnetic Resonance Imaging</i> , 2005, 23, 245-248.	1.0	12

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73	Long-term Reproducibility of fMRI Activation in Epilepsy Patients with Fixation Off Sensitivity. <i>Epilepsia</i> , 2005, 46, 1149-1151.	2.6	12
74	¹⁰ B-editing ¹ H-detection and ¹⁹ F MRI strategies to optimize boron neutron capture therapy. <i>Magnetic Resonance Imaging</i> , 2008, 26, 987-993.	1.0	9
75	Glucose metabolism downregulates the uptake of 6-(N-(7-nitrobenzoxa[1,3-diazol-4-yl])amino)-2-deoxyglucose (6-NBDG) mediated by glucose transporter 1 isoform (GLUT1): theory and simulations using the symmetric four-state carrier model. <i>Journal of Neurochemistry</i> , 2013, 125, 236-246.	2.1	9
76	New openings for porous systems research from intermolecular double-quantum NMR. <i>Solid State Nuclear Magnetic Resonance</i> , 2004, 25, 153-159.	1.5	8
77	A chemical shift imaging study on regional metabolite distribution in a CADASIL family. <i>Magnetic Resonance Imaging</i> , 2006, 24, 443-447.	1.0	8
78	Influence of steady background gradients on the accuracy of molecular diffusion anisotropy measurements. <i>Magnetic Resonance Imaging</i> , 2008, 26, 1250-1258.	1.0	8
79	Semiautomated segmentation of the human spine based on echoplanar images. <i>Magnetic Resonance Imaging</i> , 2011, 29, 1429-1436.	1.0	8
80	Multiple spin echoes for the evaluation of trabecular bone quality. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2002, 14, 3-9.	1.1	7
81	Ictal haemodynamic changes in a patient affected by subtle Epilepsia Partialis Continua. <i>Seizure: the Journal of the British Epilepsy Association</i> , 2012, 21, 65-69.	0.9	7
82	Hemodynamic response (BOLD/fMRI) in focal epilepsy with reference to benzodiazepine effect. <i>Magnetic Resonance Imaging</i> , 2004, 22, 1487-1492.	1.0	6
83	A cluster-based quantitative procedure in an fMRI study of Parkinson's disease. <i>Magnetic Resonance Imaging</i> , 2006, 24, 419-424.	1.0	5
84	Double resonance spectra of coupled I=1/2 and S=3 nuclear spins. <i>Journal of Chemical Physics</i> , 1994, 101, 4521-4525.	1.2	4
85	Metabolic alteration transients during paroxysmal activity in an epileptic patient with fixation-off sensitivity: a case study. <i>Magnetic Resonance Imaging</i> , 2006, 24, 373-379.	1.0	4
86	In vivo ³¹ P spectroscopy study of treated and untreated recovery of rat partial brain ischemia. <i>Magnetic Resonance in Medicine</i> , 1995, 34, 542-547.	1.9	3
87	BOLD signal and vessel dynamics: a hierarchical cluster analysis. <i>Magnetic Resonance Imaging</i> , 2006, 24, 411-418.	1.0	3
88	Temporal Information Entropy of the Blood-Oxygenation Level-Dependent Signals Increases in the Activated Human Primary Visual Cortex. <i>Frontiers in Physics</i> , 2017, 5, .	1.0	3
89	Double resonance mapping of liquids in porous materials. <i>Magnetic Resonance Imaging</i> , 1991, 9, 757-759.	1.0	2
90	Immiscible fluids permeability by T1 imaging. <i>Magnetic Resonance Imaging</i> , 1992, 10, 837-841.	1.0	2

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91	New NMR strategies for brain investigation. Magnetic Resonance Imaging, 2003, 21, 1111-1112.	1.0	0
92	Optimization of a single-shot EPI sequence for diffusion imaging of the human spinal cord. , 2007, , .		0
93	Preface. Magnetic Resonance Imaging, 2008, 26, 851-852.	1.0	0
94	Preface. Magnetic Resonance Imaging, 2009, 27, 1009-1010.	1.0	0
95	Preface. Magnetic Resonance Imaging, 2010, 28, 1049-1050.	1.0	0
96	Preface. Magnetic Resonance Imaging, 2011, 29, 1317-1318.	1.0	0