

Carlo Pierpaoli

List of Publications by Year in descending order

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Version: 2024-02-01

113
papers

22,636
citations

47409

49
h-index

35168

102
g-index

118
all docs

118
docs citations

118
times ranked

18602
citing authors

#	ARTICLE	IF	CITATIONS
1	Empirical field mapping for gradient nonlinearity correction of multi-site diffusion weighted MRI. <i>Magnetic Resonance Imaging</i> , 2021, 76, 69-78.	1.0	10
2	Improved reproducibility of diffusion MRI of the human brain with a four-way blip and down phase-encoding acquisition approach. <i>Magnetic Resonance in Medicine</i> , 2021, 85, 2696-2708.	1.9	5
3	Mapping gradient nonlinearity and miscalibration using diffusion-weighted MR images of a uniform isotropic phantom. <i>Magnetic Resonance in Medicine</i> , 2021, 86, 3259-3273.	1.9	8
4	Translationally Relevant Magnetic Resonance Imaging Markers in a Ferret Model of Closed Head Injury. <i>Frontiers in Neuroscience</i> , 2021, 15, 779533.	1.4	2
5	The Elusive Goal of Obtaining Quantitative MRI Data That do not Need Inter-Site Harmonization A-Posteriori: Can We Achieve It?. <i>Biological Psychiatry</i> , 2020, 87, S55.	0.7	0
6	Direct and specific assessment of axonal injury and spinal cord microenvironments using diffusion correlation imaging. <i>NeuroImage</i> , 2020, 221, 117195.	2.1	16
7	Investigation of the effect of dietary intake of omega-3 polyunsaturated fatty acids on trauma-induced white matter injury with quantitative diffusion MRI in mice. <i>Journal of Neuroscience Research</i> , 2020, 98, 2232-2244.	1.3	3
8	Brain connections derived from diffusion MRI tractography can be highly anatomically accurate if we know where white matter pathways start, where they end, and where they do not go. <i>Brain Structure and Function</i> , 2020, 225, 2387-2402.	1.2	58
9	Hypoplasia of cerebellar afferent networks in Down syndrome revealed by DTI-driven tensor based morphometry. <i>Scientific Reports</i> , 2020, 10, 5447.	1.6	13
10	Brain phenotyping in Moebius syndrome and other congenital facial weakness disorders by diffusion MRI morphometry. <i>Brain Communications</i> , 2020, 2, fcaa014.	1.5	9
11	The spectrum of brainstem malformations associated to mutations of the tubulin genes family: MRI and DTI analysis. <i>European Radiology</i> , 2019, 29, 770-782.	2.3	22
12	Image processing and analysis methods for the Adolescent Brain Cognitive Development Study. <i>NeuroImage</i> , 2019, 202, 116091.	2.1	539
13	The phenotypic landscape of a <i>Tbc1d24</i> mutant mouse includes convulsive seizures resembling human early infantile epileptic encephalopathy. <i>Human Molecular Genetics</i> , 2019, 28, 1530-1547.	1.4	20
14	The effect of Zika virus infection in the ferret. <i>Journal of Comparative Neurology</i> , 2019, 527, 1706-1719.	0.9	10
15	Evaluating corrections for Eddy currents and other EPI distortions in diffusion MRI: methodology and a dataset for benchmarking. <i>Magnetic Resonance in Medicine</i> , 2019, 81, 2774-2787.	1.9	31
16	Characterization and correlation of signal drift in diffusion weighted MRI. <i>Magnetic Resonance Imaging</i> , 2019, 57, 133-142.	1.0	6
17	Limits to anatomical accuracy of diffusion tractography using modern approaches. <i>NeuroImage</i> , 2019, 185, 1-11.	2.1	200
18	Consideration of cerebrospinal fluid intensity variation in diffusion weighted MRI. , 2019, 10948, .		0

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19	Impact of time-of-day on diffusivity measures of brain tissue derived from diffusion tensor imaging. <i>NeuroImage</i> , 2018, 173, 25-34.	2.1	48
20	Progression of histopathological and behavioral abnormalities following mild traumatic brain injury in the male ferret. <i>Journal of Neuroscience Research</i> , 2018, 96, 556-572.	1.3	18
21	Diffusion MRI and the detection of alterations following traumatic brain injury. <i>Journal of Neuroscience Research</i> , 2018, 96, 612-625.	1.3	85
22	Using double pulsed-field gradient MRI to study tissue microstructure in traumatic brain injury (TBI). <i>Microporous and Mesoporous Materials</i> , 2018, 269, 156-159.	2.2	15
23	Tensor-based morphometry using scalar and directional information of diffusion tensor MRI data (DTBM): Application to hereditary spastic paraplegia. <i>Human Brain Mapping</i> , 2018, 39, 4643-4651.	1.9	12
24	Detection and Distinction of Mild Brain Injury Effects in a Ferret Model Using Diffusion Tensor MRI (DTI) and DTI-Driven Tensor-Based Morphometry (D-TBM). <i>Frontiers in Neuroscience</i> , 2018, 12, 573.	1.4	15
25	Neuronal-Specific TUBB3 Is Not Required for Normal Neuronal Function but Is Essential for Timely Axon Regeneration. <i>Cell Reports</i> , 2018, 24, 1865-1879.e9.	2.9	101
26	Phantom-based field maps for gradient nonlinearity correction in diffusion imaging. , 2018, 10573, .		8
27	Finding the baby in the bath water – evidence for training-specific changes in MRI measures of brain structure and function. <i>Journal of Vision</i> , 2018, 18, 760.	0.1	0
28	Analysis of the effects of noise, DWI sampling, and value of assumed parameters in diffusion MRI models. <i>Magnetic Resonance in Medicine</i> , 2017, 78, 1767-1780.	1.9	63
29	Population based MRI and DTI templates of the adult ferret brain and tools for voxelwise analysis. <i>NeuroImage</i> , 2017, 152, 575-589.	2.1	30
30	Establishing the ferret as a gyrencephalic animal model of traumatic brain injury: Optimization of controlled cortical impact procedures. <i>Journal of Neuroscience Methods</i> , 2017, 285, 82-96.	1.3	29
31	Defining an Analytic Framework to Evaluate Quantitative MRI Markers of Traumatic Axonal Injury: Preliminary Results in a Mouse Closed Head Injury Model. <i>ENeuro</i> , 2017, 4, ENEURO.0164-17.2017.	0.9	32
32	Harmonization of methods to facilitate reproducibility in medical data processing: Applications to diffusion tensor magnetic resonance imaging. , 2016, , .		6
33	Whole-Brain DTI Assessment of White Matter Damage in Children with Bilateral Cerebral Palsy: Evidence of Involvement beyond the Primary Target of the Anoxic Insult. <i>American Journal of Neuroradiology</i> , 2016, 37, 1347-1353.	1.2	37
34	DR-TAMAS: Diffeomorphic Registration for Tensor Accurate Alignment of Anatomical Structures. <i>NeuroImage</i> , 2016, 132, 439-454.	2.1	55
35	The diffusion tensor imaging (DTI) component of the NIH MRI study of normal brain development (PedsDTI). <i>NeuroImage</i> , 2016, 124, 1125-1130.	2.1	32
36	Impact of time-of-day on brain morphometric measures derived from T1-weighted magnetic resonance imaging. <i>NeuroImage</i> , 2016, 133, 41-52.	2.1	95

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37	Tract Orientation and Angular Dispersion Deviation Indicator (TOADDI): A framework for single-subject analysis in diffusion tensor imaging. <i>NeuroImage</i> , 2016, 126, 151-163.	2.1	3
38	Clinical feasibility of using mean apparent propagator (MAP) MRI to characterize brain tissue microstructure. <i>NeuroImage</i> , 2016, 127, 422-434.	2.1	101
39	Investigation of vibration-induced artifact in clinical diffusion-weighted imaging of pediatric subjects. <i>Human Brain Mapping</i> , 2015, 36, 4745-4757.	1.9	6
40	The DTI Challenge: Toward Standardized Evaluation of Diffusion Tensor Imaging Tractography for Neurosurgery. <i>Journal of Neuroimaging</i> , 2015, 25, 875-882.	1.0	147
41	Analysis of the contribution of experimental bias, experimental noise, and inter-subject biological variability on the assessment of developmental trajectories in diffusion MRI studies of the brain. <i>NeuroImage</i> , 2015, 109, 480-492.	2.1	16
42	DR-BUDDI (Diffeomorphic Registration for Blip-Up blip-Down Diffusion Imaging) method for correcting echo planar imaging distortions. <i>NeuroImage</i> , 2015, 106, 284-299.	2.1	144
43	Superficial white matter fiber systems impede detection of long-range cortical connections in diffusion MR tractography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E2820-8.	3.3	364
44	Diffusion MRI properties of the human uncinata fasciculus correlate with the ability to learn visual associations. <i>Cortex</i> , 2015, 72, 65-78.	1.1	31
45	Diffusion Tensor Histogram Analysis of Pediatric Diffuse Intrinsic Pontine Glioma. <i>BioMed Research International</i> , 2014, 2014, 1-9.	0.9	12
46	Anatomical accuracy of brain connections derived from diffusion MRI tractography is inherently limited. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 16574-16579.	3.3	657
47	DR-BUDDI: Diffeomorphic Registration for Blip Up-Down Diffusion Imaging. <i>Lecture Notes in Computer Science</i> , 2014, 17, 218-226.	1.0	9
48	A framework for the analysis of phantom data in multicenter diffusion tensor imaging studies. <i>Human Brain Mapping</i> , 2013, 34, 2439-2454.	1.9	32
49	Mean apparent propagator (MAP) MRI: A novel diffusion imaging method for mapping tissue microstructure. <i>NeuroImage</i> , 2013, 78, 16-32.	2.1	320
50	Diffusion Tensor Imaging in Young Children with Autism: Biological Effects and Potential Confounds. <i>Biological Psychiatry</i> , 2012, 72, 1043-1051.	0.7	82
51	Effects of image distortions originating from susceptibility variations and concomitant fields on diffusion MRI tractography results. <i>NeuroImage</i> , 2012, 61, 275-288.	2.1	195
52	<i>Informed RESTORE</i> : A method for robust estimation of diffusion tensor from low redundancy datasets in the presence of physiological noise artifacts. <i>Magnetic Resonance in Medicine</i> , 2012, 68, 1654-1663.	1.9	96
53	Effects of physiological noise in population analysis of diffusion tensor MRI data. <i>NeuroImage</i> , 2011, 54, 1168-1177.	2.1	54
54	Microstructural and physiological features of tissues elucidated by quantitative-diffusion-tensor MRI. <i>Journal of Magnetic Resonance</i> , 2011, 213, 560-570.	1.2	363

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55	Robust fat suppression at 3T in high-resolution diffusion-weighted single-shot echo-planar imaging of human brain. <i>Magnetic Resonance in Medicine</i> , 2011, 66, 1658-1665.	1.9	18
56	Quantitative Brain MRI. <i>Topics in Magnetic Resonance Imaging</i> , 2010, 21, 63.	0.7	31
57	Artifacts in Diffusion MRI. , 2010, , 303-318.		32
58	T_2 relaxometry of normal pediatric brain development. <i>Journal of Magnetic Resonance Imaging</i> , 2009, 29, 258-267.	1.9	76
59	Probabilistic Identification and Estimation of Noise (PIESNO): A self-consistent approach and its applications in MRI. <i>Journal of Magnetic Resonance</i> , 2009, 199, 94-103.	1.2	52
60	In vivo diffusion tensor imaging of the human optic chiasm at sub-millimeter resolution. <i>NeuroImage</i> , 2009, 47, 1244-1251.	2.1	18
61	A new linear least squares method for T1 estimation from SPGR signals with multiple TRs. , 2009, ,		0
62	Diffusion-weighted radial fast spin-echo for high-resolution diffusion tensor imaging at 3T. <i>Magnetic Resonance in Medicine</i> , 2008, 60, 270-276.	1.9	27
63	Linear least-squares method for unbiased estimation of T_1 from SPGR signals. <i>Magnetic Resonance in Medicine</i> , 2008, 60, 496-501.	1.9	58
64	Gleaning multicomponent T_1 and T_2 information from steady-state imaging data. <i>Magnetic Resonance in Medicine</i> , 2008, 60, 1372-1387.	1.9	413
65	Three-dimensional mapping of lingual myoarchitecture by diffusion tensor MRI. <i>NMR in Biomedicine</i> , 2008, 21, 479-488.	1.6	7
66	The Elliptical Cone of Uncertainty and Its Normalized Measures in Diffusion Tensor Imaging. <i>IEEE Transactions on Medical Imaging</i> , 2008, 27, 834-846.	5.4	26
67	Comparison of EPI Distortion Correction Methods in Diffusion Tensor MRI Using a Novel Framework. <i>Lecture Notes in Computer Science</i> , 2008, 11, 321-329.	1.0	97
68	Automatic Deformable Diffusion Tensor Registration for Fiber Population Analysis. <i>Lecture Notes in Computer Science</i> , 2008, 11, 1014-1022.	1.0	13
69	Genetic contributions to white matter architecture revealed by diffusion tensor imaging in Williams syndrome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 15117-15122.	3.3	74
70	Erratum to "Error propagation framework for diffusion tensor imaging via diffusion tensor representations". <i>IEEE Transactions on Medical Imaging</i> , 2007, 26, 1424-1424.	5.4	3
71	Error Propagation Framework for Diffusion Tensor Imaging via Diffusion Tensor Representations. <i>IEEE Transactions on Medical Imaging</i> , 2007, 26, 1017-1034.	5.4	36
72	Variance of estimated DTI-derived parameters via first-order perturbation methods. <i>Magnetic Resonance in Medicine</i> , 2007, 57, 141-149.	1.9	39

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73	A unifying theoretical and algorithmic framework for least squares methods of estimation in diffusion tensor imaging. <i>Journal of Magnetic Resonance</i> , 2006, 182, 115-125.	1.2	216
74	Regional distribution of measurement error in diffusion tensor imaging. <i>Psychiatry Research - Neuroimaging</i> , 2006, 147, 69-78.	0.9	68
75	Age effects on diffusion tensor magnetic resonance imaging tractography measures of frontal cortex connections in schizophrenia. <i>Human Brain Mapping</i> , 2006, 27, 230-238.	1.9	224
76	Estimating intensity variance due to noise in registered images. , 2005, , .		1
77	An automatic method for estimating noise-induced signal variance in magnitude-reconstructed magnetic resonance images. , 2005, , .		13
78	RESTORE: Robust estimation of tensors by outlier rejection. <i>Magnetic Resonance in Medicine</i> , 2005, 53, 1088-1095.	1.9	573
79	Confidence mapping in diffusion tensor magnetic resonance imaging tractography using a bootstrap approach. <i>Magnetic Resonance in Medicine</i> , 2005, 53, 1143-1149.	1.9	133
80	PASTA: Pointwise assessment of streamline tractography attributes. <i>Magnetic Resonance in Medicine</i> , 2005, 53, 1462-1467.	1.9	113
81	Dependence on diffusion time of apparent diffusion tensor of ex vivo calf tongue and heart. <i>Magnetic Resonance in Medicine</i> , 2005, 54, 1387-1396.	1.9	73
82	Estimating intensity variance due to noise in registered images: Applications to diffusion tensor MRI. <i>NeuroImage</i> , 2005, 26, 673-684.	2.1	44
83	A Diffusion Tensor Magnetic Resonance Imaging Study of Frontal Cortex Connections in Very-Late-Onset Schizophrenia-Like Psychosis. <i>American Journal of Geriatric Psychiatry</i> , 2005, 13, 1092-1099.	0.6	71
84	A diffusion tensor magnetic resonance imaging study of frontal cortex connections in very-late-onset schizophrenia-like psychosis. <i>American Journal of Geriatric Psychiatry</i> , 2005, 13, 1092-9.	0.6	42
85	The Future for Diffusion Tensor Imaging in Neuropsychiatry. <i>Journal of Neuropsychiatry and Clinical Neurosciences</i> , 2002, 14, 1-5.	0.9	30
86	Inferring Structural and Architectural Features of Brain Tissue from DT-MRI Measurements. <i>CNS Spectrums</i> , 2002, 7, 510-515.	0.7	12
87	Diffusion and Perfusion MRI in Epilepsy. <i>Epilepsia</i> , 2002, 43, 69-77.	2.6	23
88	Water Diffusion Changes in Wallerian Degeneration and Their Dependence on White Matter Architecture. <i>NeuroImage</i> , 2001, 13, 1174-1185.	2.1	839
89	Spatial transformations of diffusion tensor magnetic resonance images. <i>IEEE Transactions on Medical Imaging</i> , 2001, 20, 1131-1139.	5.4	559
90	Color schemes to represent the orientation of anisotropic tissues from diffusion tensor data: application to white matter fiber tract mapping in the human brain. <i>Magnetic Resonance in Medicine</i> , 2000, 43, 921-921.	1.9	224

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91	In vivo fiber tractography using DT-MRI data. Magnetic Resonance in Medicine, 2000, 44, 625-632.	1.9	2,778
92	In vivo fiber tractography using DT-MRI data. , 2000, 44, 625.		21
93	Comparative MR Imaging Study of Brain Maturation in Kittens with T1, T2, and the Trace of the Diffusion Tensor. Radiology, 1999, 210, 133-142.	3.6	132
94	Visualizing and characterizing white matter fiber structure and architecture in the human pyramidal tract using diffusion tensor MRI. Magnetic Resonance Imaging, 1999, 17, 1121-1133.	1.0	190
95	Color schemes to represent the orientation of anisotropic tissues from diffusion tensor data: Application to white matter fiber tract mapping in the human brain. Magnetic Resonance in Medicine, 1999, 42, 526-540.	1.9	704
96	Color schemes to represent the orientation of anisotropic tissues from diffusion tensor data: Application to white matter fiber tract mapping in the human brain. , 1999, 42, 526.		39
97	Characterization of and correction for eddy current artifacts in echo planar diffusion imaging. Magnetic Resonance in Medicine, 1998, 39, 801-812.	1.9	314
98	A simplified method to measure the diffusion tensor from seven MR images. Magnetic Resonance in Medicine, 1998, 39, 928-934.	1.9	558
99	Simultaneous Measurement of $\hat{\rho}^{\text{R2}}$ and $\hat{\rho}^{\text{R2}^*}$ in Cat Brain during Hypoxia and Hypercapnia. NeuroImage, 1997, 6, 191-200.	2.1	38
100	Diffusion tensor MR imaging of the human brain.. Radiology, 1996, 201, 637-648.	3.6	2,477
101	Toward a quantitative assessment of diffusion anisotropy. Magnetic Resonance in Medicine, 1996, 36, 893-906.	1.9	2,219
102	Microstructural and Physiological Features of Tissues Elucidated by Quantitative-Diffusion-Tensor MRI. Journal of Magnetic Resonance Series B, 1996, 111, 209-219.	1.6	3,801
103	High Temporal Resolution Diffusion MRI of Global Cerebral Ischemia and Reperfusion. Journal of Cerebral Blood Flow and Metabolism, 1996, 16, 892-905.	2.4	110
104	Blue blood or black blood: R1 effects in gradient-echo echo-planar functional neuroimaging. Magnetic Resonance Imaging, 1995, 13, 369-378.	1.0	12
105	Effect of anticonvulsant drugs on peripheral benzodiazepine receptors of human lymphocytes. Neuropharmacology, 1995, 34, 427-431.	2.0	18
106	Peripheral benzodiazepine receptors and glucose metabolism in human gliomas. Journal of Neuro-Oncology, 1994, 22, 15-22.	1.4	12
107	Brain parenchyma apparent diffusion coefficient alterations associated with experimental complex partial status epilepticus. Magnetic Resonance Imaging, 1994, 12, 865-871.	1.0	135
108	Frequency dependence of MR relaxation times II. Iron oxides. Journal of Magnetic Resonance Imaging, 1993, 3, 641-648.	1.9	106

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109	Benzodiazepine receptors and diazepam binding inhibitor: A possible link between stress, anxiety and the immune system. Psychoneuroendocrinology, 1993, 18, 3-22.	1.3	70
110	Histopathologic correlates of abnormal water diffusion in cerebral ischemia: diffusion-weighted MR imaging and light and electron microscopic study.. Radiology, 1993, 189, 439-448.	3.6	220
111	Diazepam binding inhibitor (DBI) increases after acute stress in rat. Neuropharmacology, 1991, 30, 1445-1452.	2.0	52
112	Acute noise stress in rats increases the levels of diazepam binding inhibitor (DBI) in hippocampus and adrenal gland. Psychopharmacology, 1991, 103, 339-342.	1.5	29
113	Characterization of peripheral benzodiazepine receptors in human blood mononuclear cells. Neuropharmacology, 1990, 29, 375-378.	2.0	39