

Thomas Witzel

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5175101/publications.pdf>

Version: 2024-02-01

96
papers

7,267
citations

81900

39
h-index

62596

80
g-index

104
all docs

104
docs citations

104
times ranked

7935
citing authors

#	ARTICLE	IF	CITATIONS
1	Rapid simultaneous acquisition of macromolecular tissue volume, susceptibility, and relaxometry maps. <i>Magnetic Resonance in Medicine</i> , 2022, 87, 781-790.	3.0	3
2	A 31-channel integrated AC/DC shim and radiofrequency receive array coil for improved 7T MRI. <i>Magnetic Resonance in Medicine</i> , 2022, 87, 1074-1092.	3.0	14
3	Comprehensive diffusion MRI dataset for in vivo human brain microstructure mapping using 300 mT/m gradients. <i>Scientific Data</i> , 2022, 9, 7.	5.3	16
4	Mapping the human connectome using diffusion MRI at 300 mT/m gradient strength: Methodological advances and scientific impact. <i>NeuroImage</i> , 2022, 254, 118958.	4.2	18
5	Ultra-high spatial resolution BOLD fMRI in humans using combined segmented accelerated VFA-FLEET with a recursive RF pulse design. <i>Magnetic Resonance in Medicine</i> , 2021, 85, 120-139.	3.0	15
6	Improving <i>in vivo</i> human cerebral cortical surface reconstruction using data-driven super-resolution. <i>Cerebral Cortex</i> , 2021, 31, 463-482.	2.9	17
7	A 48-channel receive array coil for mesoscopic diffusion-weighted MRI of ex vivo human brain on the 3 T connectome scanner. <i>NeuroImage</i> , 2021, 238, 118256.	4.2	13
8	Scan-rescan repeatability of axonal imaging metrics using high-gradient diffusion MRI and statistical implications for study design. <i>NeuroImage</i> , 2021, 240, 118323.	4.2	8
9	Connectome 2.0: Developing the next-generation ultra-high gradient strength human MRI scanner for bridging studies of the micro-, meso- and macro-connectome. <i>NeuroImage</i> , 2021, 243, 118530.	4.2	58
10	Combining Noninvasive Electromagnetic and Hemodynamic Measures of Human Brain Activity. , 2021, , 179-193.		1
11	High-gradient diffusion MRI reveals distinct estimates of axon diameter index within different white matter tracts in the in vivo human brain. <i>Brain Structure and Function</i> , 2020, 225, 1277-1291.	2.3	55
12	Low-cost and portable MRI. <i>Journal of Magnetic Resonance Imaging</i> , 2020, 52, 686-696.	3.4	128
13	Design and implementation of a low-cost, tabletop MRI scanner for education and research prototyping. <i>Journal of Magnetic Resonance</i> , 2020, 310, 106625.	2.1	24
14	An orthogonal shim coil for 3T brain imaging. <i>Magnetic Resonance in Medicine</i> , 2020, 83, 1499-1511.	3.0	11
15	In vivo functional localization of the temporal monocular crescent representation in human primary visual cortex. <i>NeuroImage</i> , 2020, 209, 116516.	4.2	3
16	A 16-channel AC/DC array coil for anesthetized monkey whole-brain imaging at 7T. <i>NeuroImage</i> , 2020, 207, 116396.	4.2	26
17	Axon diameter index estimation independent of fiber orientation distribution using high-gradient diffusion MRI. <i>NeuroImage</i> , 2020, 222, 117197.	4.2	49
18	Axonal damage in the optic radiation assessed by white matter tract integrity metrics is associated with retinal thinning in multiple sclerosis. <i>NeuroImage: Clinical</i> , 2020, 27, 102293.	2.7	14

#	ARTICLE	IF	CITATIONS
19	DeepDTI: High-fidelity six-direction diffusion tensor imaging using deep learning. <i>NeuroImage</i> , 2020, 219, 117017.	4.2	63
20	Detection of nanotesla AC magnetic fields using steady-state SIRS and ultra-low field MRI. <i>Journal of Neural Engineering</i> , 2020, 17, 034001.	3.5	7
21	Connectome 2.0: Cutting-Edge Hardware Ushers in New Opportunities for Computational Diffusion MRI. <i>Mathematics and Visualization</i> , 2020, , 3-12.	0.6	3
22	7 Tesla MRI of the ex vivo human brain at 100 micron resolution. <i>Scientific Data</i> , 2019, 6, 244.	5.3	179
23	Corpus callosum axon diameter relates to cognitive impairment in multiple sclerosis. <i>Annals of Clinical and Translational Neurology</i> , 2019, 6, 882-892.	3.7	38
24	Accelerated whole-brain perfusion imaging using a simultaneous multislice spin-echo and gradient-echo sequence with joint virtual coil reconstruction. <i>Magnetic Resonance in Medicine</i> , 2019, 82, 973-983.	3.0	10
25	Phase-matched virtual coil reconstruction for highly accelerated diffusion echo-planar imaging. <i>NeuroImage</i> , 2019, 194, 291-302.	4.2	19
26	Age-related alterations in axonal microstructure in the corpus callosum measured by high-gradient diffusion MRI. <i>NeuroImage</i> , 2019, 191, 325-336.	4.2	55
27	Imaging G-Ratio in Multiple Sclerosis Using High-Gradient Diffusion MRI and Macromolecular Tissue Volume. <i>American Journal of Neuroradiology</i> , 2019, 40, 1871-1877.	2.4	30
28	Motion-robust sub-millimeter isotropic diffusion imaging through motion corrected generalized slice dithered enhanced resolution (MC-gSlider) acquisition. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 1891-1906.	3.0	28
29	Validation of diffusion MRI estimates of compartment size and volume fraction in a biomimetic brain phantom using a human MRI scanner with 300 mT/m maximum gradient strength. <i>NeuroImage</i> , 2018, 182, 469-478.	4.2	39
30	High-resolution in vivo diffusion imaging of the human brain with generalized slice dithered enhanced resolution: Simultaneous multislice (gSMS). <i>Magnetic Resonance in Medicine</i> , 2018, 79, 141-151.	3.0	134
31	Liquid crystal phantom for validation of microscopic diffusion anisotropy measurements on clinical MRI systems. <i>Magnetic Resonance in Medicine</i> , 2018, 79, 1817-1828.	3.0	18
32	A comprehensive diffusion MRI dataset acquired on the MGH Connectome scanner in a biomimetic brain phantom. <i>Data in Brief</i> , 2018, 18, 334-339.	1.0	3
33	High b-value and high Resolution Integrated Diffusion (HIBRID) imaging. <i>NeuroImage</i> , 2017, 150, 162-176.	4.2	24
34	Colorectal cancer staging: comparison of whole-body PET/CT and PET/MR. <i>Abdominal Radiology</i> , 2017, 42, 1141-1151.	2.1	52
35	Diffusion MRI microstructure models with in vivo human brain Connectome data: results from a multi-group comparison. <i>NMR in Biomedicine</i> , 2017, 30, e3734.	2.8	33
36	Simultaneous Multislice-Based 5-Minute Lumbar Spine MRI Protocol: Initial Experience in a Clinical Setting. <i>Journal of Neuroimaging</i> , 2017, 27, 442-446.	2.0	16

#	ARTICLE	IF	CITATIONS
37	Diagnostic Performance of a 10-Minute Gadolinium-Enhanced Brain MRI Protocol Compared with the Standard Clinical Protocol for Detection of Intracranial Enhancing Lesions. <i>American Journal of Neuroradiology</i> , 2017, 38, 1689-1694.	2.4	17
38	g-Ratio weighted imaging of the human spinal cord in vivo. <i>NeuroImage</i> , 2017, 145, 11-23.	4.2	66
39	Ultrafast Brain MRI: Clinical Deployment and Comparison to Conventional Brain MRI at 3T. <i>Journal of Neuroimaging</i> , 2016, 26, 503-510.	2.0	46
40	Intracortical depth analyses of frequency-sensitive regions of human auditory cortex using 7T fMRI. <i>NeuroImage</i> , 2016, 143, 116-127.	4.2	46
41	Selective magnetic resonance imaging of magnetic nanoparticles by acoustically induced rotary saturation. <i>Magnetic Resonance in Medicine</i> , 2016, 75, 97-106.	3.0	7
42	A 32-channel combined RF and B_0 shim array for 3T brain imaging. <i>Magnetic Resonance in Medicine</i> , 2016, 75, 441-451.	3.0	106
43	Reducing sensitivity losses due to respiration and motion in accelerated echo planar imaging by reordering the autocalibration data acquisition. <i>Magnetic Resonance in Medicine</i> , 2016, 75, 665-679.	3.0	113
44	Automatic cortical surface reconstruction of high-resolution T1 echo planar imaging data. <i>NeuroImage</i> , 2016, 134, 338-354.	4.2	57
45	Characterization of Axonal Disease in Patients with Multiple Sclerosis Using High-Gradient-Diffusion MR Imaging. <i>Radiology</i> , 2016, 280, 244-251.	7.3	37
46	The Structural Connectome of the Human Central Homeostatic Network. <i>Brain Connectivity</i> , 2016, 6, 187-200.	1.7	82
47	MGH-USC Human Connectome Project datasets with ultra-high b-value diffusion MRI. <i>NeuroImage</i> , 2016, 124, 1108-1114.	4.2	209
48	Low-Cost High-Performance MRI. <i>Scientific Reports</i> , 2015, 5, 15177.	3.3	189
49	In vivo mapping of human spinal cord microstructure at 300 mT/m. <i>NeuroImage</i> , 2015, 118, 494-507.	4.2	69
50	The impact of gradient strength on in vivo diffusion MRI estimates of axon diameter. <i>NeuroImage</i> , 2015, 106, 464-472.	4.2	95
51	White matter compartment models for in vivo diffusion MRI at 300 mT/m. <i>NeuroImage</i> , 2015, 118, 468-483.	4.2	53
52	Increasing fMRI Sampling Rate Improves Granger Causality Estimates. <i>PLoS ONE</i> , 2014, 9, e100319.	2.5	28
53	Spatio-temporal dynamics and laterality effects of face inversion, feature presence and configuration, and face outline. <i>Frontiers in Human Neuroscience</i> , 2014, 8, 868.	2.0	3
54	Investigating the Capability to Resolve Complex White Matter Structures with High b-Value Diffusion Magnetic Resonance Imaging on the MGH-USC Connectom Scanner. <i>Brain Connectivity</i> , 2014, 4, 718-726.	1.7	53

#	ARTICLE	IF	CITATIONS
55	Quantitative oxygenation venography from MRI phase. <i>Magnetic Resonance in Medicine</i> , 2014, 72, 149-159.	3.0	143
56	Improving the spatial resolution of magnetic resonance inverse imaging via the blipped-CAIPI acquisition scheme. <i>NeuroImage</i> , 2014, 91, 401-411.	4.2	5
57	Mitigate B_1 inhomogeneity using spatially selective radiofrequency excitation with generalized spatial encoding magnetic fields. <i>Magnetic Resonance in Medicine</i> , 2014, 71, 1458-1469.	3.0	5
58	fMRI hemodynamics accurately reflects neuronal timing in the human brain measured by MEG. <i>NeuroImage</i> , 2013, 78, 372-384.	4.2	36
59	Whole-head rapid fMRI acquisition using echo-shifted magnetic resonance inverse imaging. <i>NeuroImage</i> , 2013, 78, 325-338.	4.2	35
60	The Human Connectome Project and beyond: Initial applications of 300mT/m gradients. <i>NeuroImage</i> , 2013, 80, 234-245.	4.2	309
61	Pushing the limits of in vivo diffusion MRI for the Human Connectome Project. <i>NeuroImage</i> , 2013, 80, 220-233.	4.2	460
62	Spatio-temporal mapping cortical neuroplasticity in carpal tunnel syndrome. <i>Brain</i> , 2012, 135, 3062-3073.	7.6	29
63	Ultrafast inverse imaging techniques for fMRI. <i>NeuroImage</i> , 2012, 62, 699-705.	4.2	40
64	Multi-projection magnetic resonance inverse imaging of the human visuomotor system. <i>NeuroImage</i> , 2012, 61, 304-313.	4.2	7
65	Blipped-controlled aliasing in parallel imaging for simultaneous multislice echo planar imaging with reduced g -factor penalty. <i>Magnetic Resonance in Medicine</i> , 2012, 67, 1210-1224.	3.0	1,144
66	Reconstruction of MRI data encoded by multiple nonbijective curvilinear magnetic fields. <i>Magnetic Resonance in Medicine</i> , 2012, 68, 1145-1156.	3.0	31
67	Physiological noise reduction using volumetric functional magnetic resonance inverse imaging. <i>Human Brain Mapping</i> , 2012, 33, 2815-2830.	3.6	26
68	Functional magnetic resonance inverse imaging of human visuomotor systems using eigenspace linearly constrained minimum amplitude (eLCMA) beamformer. <i>NeuroImage</i> , 2011, 55, 87-100.	4.2	7
69	Right hemisphere has the last laugh: neural dynamics of joke appreciation. <i>Cognitive, Affective and Behavioral Neuroscience</i> , 2011, 11, 113-130.	2.0	73
70	Differences in cortical response to acupuncture and electroacupuncture stimuli. <i>BMC Neuroscience</i> , 2011, 12, 73.	1.9	24
71	Cancellation of EEG and MEG signals generated by extended and distributed sources. <i>Human Brain Mapping</i> , 2010, 31, 140-149.	3.6	111
72	Onset timing of cross-sensory activations and multisensory interactions in auditory and visual sensory cortices. <i>European Journal of Neuroscience</i> , 2010, 31, 1772-1782.	2.6	107

#	ARTICLE	IF	CITATIONS
73	Three dimensional echo-planar imaging at 7 Tesla. <i>NeuroImage</i> , 2010, 51, 261-266.	4.2	266
74	K-space reconstruction of magnetic resonance inverse imaging (K-InI) of human visuomotor systems. <i>NeuroImage</i> , 2010, 49, 3086-3098.	4.2	23
75	The QuantumCor device for treating mitral regurgitation: An animal study. <i>Catheterization and Cardiovascular Interventions</i> , 2009, 74, 43-48.	1.7	37
76	Collagen Mechanics: A Rationale for Radiofrequency Energy to Treat Mitral Regurgitation. <i>Journal of Interventional Cardiology</i> , 2009, 22, 184-190.	1.2	3
77	Accelerated radiation damping for increased spin equilibrium (ARISE): A new method for controlling the recovery of longitudinal magnetization. <i>Magnetic Resonance in Medicine</i> , 2008, 60, 1112-1121.	3.0	7
78	Slice-selective RF pulses for in vivo B_1 inhomogeneity mitigation at 7 tesla using parallel RF excitation with a 16-element coil. <i>Magnetic Resonance in Medicine</i> , 2008, 60, 1422-1432.	3.0	140
79	Percutaneous Treatment for Mitral Regurgitation: The QuantumCor System. <i>Journal of Interventional Cardiology</i> , 2008, 21, 178-182.	1.2	45
80	Objective phonological and subjective perceptual characteristics of syllables modulate spatiotemporal patterns of superior temporal gyrus activity. <i>NeuroImage</i> , 2008, 40, 1888-1901.	4.2	12
81	Event-related single-shot volumetric functional magnetic resonance inverse imaging of visual processing. <i>NeuroImage</i> , 2008, 42, 230-247.	4.2	45
82	A non-invasive method to relate the timing of neural activity to white matter microstructural integrity. <i>NeuroImage</i> , 2008, 42, 710-716.	4.2	39
83	Stimulus-induced Rotary Saturation (SIRS): A potential method for the detection of neuronal currents with MRI. <i>NeuroImage</i> , 2008, 42, 1357-1365.	4.2	41
84	Linear constraint minimum variance beamformer functional magnetic resonance inverse imaging. <i>NeuroImage</i> , 2008, 43, 297-311.	4.2	35
85	Spatiotemporal Mapping the Neural Correlates of Acupuncture with MEG. <i>Journal of Alternative and Complementary Medicine</i> , 2008, 14, 679-688.	2.1	15
86	Spatiotemporal cortical dynamics underlying abstract and concrete word reading. <i>Human Brain Mapping</i> , 2007, 28, 355-362.	3.6	64
87	Assessing and improving the spatial accuracy in MEG source localization by depth-weighted minimum-norm estimates. <i>NeuroImage</i> , 2006, 31, 160-171.	4.2	420
88	The value of multichannel MEG and EEG in the presurgical evaluation of 70 epilepsy patients. <i>Epilepsy Research</i> , 2006, 69, 80-86.	1.6	154
89	Task-modulated "what" and "where" pathways in human auditory cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 14608-14613.	7.1	315
90	Spatiotemporal brain maps of delayed word repetition and recognition. <i>NeuroImage</i> , 2005, 28, 293-304.	4.2	19

#	ARTICLE	IF	CITATIONS
91	Orbitofrontal Cortical Dysfunction in Akinetic Catatonia: A Functional Magnetic Resonance Imaging Study During Negative Emotional Stimulation. <i>Schizophrenia Bulletin</i> , 2004, 30, 405-427.	4.3	128
92	Prednisone reduces muscle degeneration in dystrophin-deficient <i>Caenorhabditis elegans</i> . <i>Neuromuscular Disorders</i> , 2004, 14, 365-370.	0.6	71
93	Spectral spatiotemporal imaging of cortical oscillations and interactions in the human brain. <i>NeuroImage</i> , 2004, 23, 582-595.	4.2	169
94	Using TOP-C and AMPIC to port large parallel applications to the Computational Grid. <i>Future Generation Computer Systems</i> , 2003, 19, 587-596.	7.5	10
95	Spatiotemporal maps of past-tense verb inflection. <i>NeuroImage</i> , 2003, 19, 91-100.	4.2	54
96	GABA-ergic Modulation of Prefrontal Spatio-temporal Activation Pattern during Emotional Processing: A Combined fMRI/MEG Study with Placebo and Lorazepam. <i>Journal of Cognitive Neuroscience</i> , 2002, 14, 348-370.	2.3	46