Edward J Auerbach

List of Publications by Year
in descending order

80 papers	19,273 citations	76326 40 h-index	62596 80 g-index
83 all docs	83 docs citations	83 times ranked	15793 citing authors

#	Article	IF	Citations
1	Plugâ€andâ€play advanced magnetic resonance spectroscopy. Magnetic Resonance in Medicine, 2022, 87, 2613-2620.	3.0	5
2	Broadband selective excitation radiofrequency pulses for optimized localization in vivo. Magnetic Resonance in Medicine, 2022, 87, 2111-2119.	3.0	2
3	Quantification of <scp>NAD</scp>⁺ in human brain with <scp>¹H MR</scp> spectroscopy at 3 T: Comparison of three localization techniques with different handling of water magnetization. Magnetic Resonance in Medicine, 2022, 88, 1027-1038.	3.0	4
4	Empirical transmit field bias correction of T1w/T2w myelin maps. NeuroImage, 2022, 258, 119360.	4.2	20
5	In vivo diffusionâ€weighted MRS using semiâ€LASER in the human brain at 3ÂT: Methodological aspects and clinical feasibility. NMR in Biomedicine, 2021, 34, e4206.	2.8	14
6	Progress in Imaging the Human Torso at the Ultrahigh Fields of 7 and 10.5ÂT. Magnetic Resonance Imaging Clinics of North America, 2021, 29, e1-e19.	1.1	10
7	Parallel transmit optimized 3D composite adiabatic spectralâ€spatial pulse for spectroscopy. Magnetic Resonance in Medicine, 2021, 86, 17-32.	3.0	3
8	A selfâ€decoupled 32â€channel receive array for humanâ€brain MRI at 10.5 T. Magnetic Resonance in Medicine, 2021, 86, 1759-1772.	3.0	11
9	First inâ€vivo human imaging at 10.5T: Imaging the body at 447 MHz. Magnetic Resonance in Medicine, 2020, 84, 289-303.	3.0	53
10	Ultra-high field (10.5 T) resting state fMRI in the macaque. NeuroImage, 2020, 223, 117349.	4.2	30
11	Changes in the intracellular microenvironment in the aging human brain. Neurobiology of Aging, 2020, 95, 168-175.	3.1	11
12	A Comparison of Methods for High-Spatial-Resolution Diffusion-weighted Imaging in Breast MRI. Radiology, 2020, 297, 304-312.	7.3	33
13	Bilateral Multiband 4D Flow MRI of the Carotid Arteries at 7T. Magnetic Resonance in Medicine, 2020, 84, 1947-1960.	3.0	7
14	A field-monitoring-based approach for correcting eddy-current-induced artifacts of up to the 2nd spatial order in human-connectome-project-style multiband diffusion MRI experiment at 7T: A pilot study. NeuroImage, 2020, 216, 116861.	4.2	13
15	Selfâ€navigation for 3D multishot EPI with dataâ€reference. Magnetic Resonance in Medicine, 2020, 84, 1747-1762.	3.0	16
16	Prospective motion and B₀ shim correction for MR spectroscopy in human brain at 7T. Magnetic Resonance in Medicine, 2019, 82, 1984-1992.	3.0	15
17	Brain imaging with improved acceleration and SNR at 7 Tesla obtained with 64â€channel receive array. Magnetic Resonance in Medicine, 2019, 82, 495-509.	3.0	53
18	Nyquist ghost correction of breast diffusion weighted imaging using referenceless methods. Magnetic Resonance in Medicine, 2019, 81, 2624-2631.	3.0	7

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19	Human Connectome Project-style resting-state functional MRI at 7 Tesla using radiofrequency parallel transmission. NeuroImage, 2019, 184, 396-408.	4.2	22
20	Highâ€resolution wholeâ€brain diffusion MRI at 7T using radiofrequency parallel transmission. Magnetic Resonance in Medicine, 2018, 80, 1857-1870.	3.0	31
21	Designing 3D selective adiabatic radiofrequency pulses with single and parallel transmission. Magnetic Resonance in Medicine, 2018, 79, 701-710.	3.0	11
22	Quantitative single breathâ€hold renal arterial spin labeling imaging at 7T. Magnetic Resonance in Medicine, 2018, 79, 815-825.	3.0	12
23	Transverse relaxation time constants of the five major metabolites in human brain measured in vivo using LASER and PRESS at 3 T. Magnetic Resonance in Medicine, 2018, 79, 1260-1265.	3.0	16
24	Apparent diffusion coefficients of the five major metabolites measured in the human brain in vivo at 3T. Magnetic Resonance in Medicine, 2018, 79, 2896-2901.	3.0	17
25	Simultaneous multislice imaging in dynamic cardiac MRI at 7T using parallel transmission. Magnetic Resonance in Medicine, 2017, 77, 1010-1020.	3.0	37
26	Validation and optimization of adiabatic T_{1Ï} and T_{2Ï} for quantitative imaging of articular cartilage at 3â€‰T. Magnetic Resonance in Medicine, 2017, 77, 1265-1275.	3.0	15
27	Tradeoffs in pushing the spatial resolution of fMRI for the 7T Human Connectome Project. NeuroImage, 2017, 154, 23-32.	4.2	117
28	Simultaneous multislice imaging for native myocardial T₁ mapping: Improved spatial coverage in a single breath-hold. Magnetic Resonance in Medicine, 2017, 78, 462-471.	3.0	32
29	Toward imaging the body at 10.5 tesla. Magnetic Resonance in Medicine, 2017, 77, 434-443.	3.0	79
30	Multi-modal Brain MRI in Subjects with PD and iRBD. Frontiers in Neuroscience, 2017, 11, 709.	2.8	18
31	A generalized slabâ€wise framework for parallel transmit multiband RF pulse design. Magnetic Resonance in Medicine, 2016, 75, 1444-1456.	3.0	22
32	Evaluation of 2D multiband EPI imaging for high-resolution, whole-brain, task-based fMRI studies at 3T: Sensitivity and slice leakage artifacts. NeuroImage, 2016, 124, 32-42.	4.2	170
33	The Human Connectome Project's neuroimaging approach. Nature Neuroscience, 2016, 19, 1175-1187.	14.8	825
34	Single-voxel¹H spectroscopy in the human hippocampus at 3 T using the LASER sequence: characterization of neurochemical profile and reproducibility. NMR in Biomedicine, 2015, 28, 1209-1217.	2.8	24
35	High resolution whole brain diffusion imaging at 7 T for the Human Connectome Project. NeuroImage, 2015, 122, 318-331.	4.2	166
36	Theoretical and experimental evaluation of multi-band EPI for high-resolution whole brain pCASL Imaging. NeuroImage, 2015, 106, 170-181.	4.2	36

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37	Heritability of fractional anisotropy in human white matter: A comparison of Human Connectome Project and ENIGMA-DTI data. NeuroImage, 2015, 111, 300-311.	4.2	227
38	Seven-Tesla Time-of-Flight Angiography Using a 16-Channel Parallel Transmit System With Power-Constrained 3-dimensional Spoke Radiofrequency Pulse Design. Investigative Radiology, 2014, 49, 314-325.	6.2	29
39	ICA-based artefact removal and accelerated fMRI acquisition for improved resting state network imaging. NeuroImage, 2014, 95, 232-247.	4.2	1,148
40	Study protocol: the Whitehall II imaging sub-study. BMC Psychiatry, 2014, 14, 159.	2.6	82
41	Cerebral TOF angiography at 7T: Impact of B₁⁺ shimming with a 16â€channel transceiver array. Magnetic Resonance in Medicine, 2014, 71, 966-977.	3.0	32
42	Mitigating transmit B 1 inhomogeneity in the liver at 7T using multi-spoke parallel transmit RF pulse design. Quantitative Imaging in Medicine and Surgery, 2014, 4, 4-10.	2.0	38
43	Dynamically applied B₁⁺ shimming solutions for nonâ€contrast enhanced renal angiography at 7.0 tesla. Magnetic Resonance in Medicine, 2013, 69, 114-126.	3.0	57
44	In vivo 1H magnetic resonance spectroscopy in young-adult daily marijuana users. NeuroImage: Clinical, 2013, 2, 581-589.	2.7	42
45	Effects of image reconstruction on fiber orientation mapping from multichannel diffusion MRI: Reducing the noise floor using SENSE. Magnetic Resonance in Medicine, 2013, 70, 1682-1689.	3.0	169
46	Advances in diffusion MRI acquisition and processing in the Human Connectome Project. NeuroImage, 2013, 80, 125-143.	4.2	851
47	The WU-Minn Human Connectome Project: An overview. NeuroImage, 2013, 80, 62-79.	4.2	4,282
48	Evaluation of slice accelerations using multiband echo planar imaging at 3T. NeuroImage, 2013, 83, 991-1001.	4.2	442
49	Dose-dependent effect of isoflurane on regional cerebral blood flow in anesthetized macaque monkeys. Neuroscience Letters, 2013, 541, 58-62.	2.1	74
50	Resting-state fMRI in the Human Connectome Project. NeuroImage, 2013, 80, 144-168.	4.2	1,367
51	Pushing spatial and temporal resolution for functional and diffusion MRI in the Human Connectome Project. NeuroImage, 2013, 80, 80-104.	4.2	769
52	Multiband accelerated spinâ€echo echo planar imaging with reduced peak RF power using timeâ€shifted RF pulses. Magnetic Resonance in Medicine, 2013, 69, 1261-1267.	3.0	126
53	Simultaneous multislice multiband parallel radiofrequency excitation with independent slice-specific transmit B1 homogenization. Magnetic Resonance in Medicine, 2013, 70, 630-638.	3.0	63
54	Cardiac imaging at 7 tesla: Singleâ€•and twoâ€spoke radiofrequency pulse design with 16â€channel parallel excitation. Magnetic Resonance in Medicine, 2013, 70, 1210-1219.	3.0	58

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55	Brain dynamic neurochemical changes in dystonic patients: A magnetic resonance spectroscopy study. Movement Disorders, 2013, 28, 201-209.	3.9	56
56	In Vivo Noninvasive Detection of Brown Adipose Tissue through Intermolecular Zero-Quantum MRI. PLoS ONE, 2013, 8, e74206.	2.5	42
57	Temporally-independent functional modes of spontaneous brain activity. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 3131-3136.	7.1	696
58	The Human Connectome Project: A data acquisition perspective. NeuroImage, 2012, 62, 2222-2231.	4.2	1,978
59	Contrast enhancement in TOF cerebral angiography at 7 T using saturation and MT pulses under SAR constraints: Impact of VERSE and sparse pulses. Magnetic Resonance in Medicine, 2012, 68, 188-197.	3.0	35
60	Toward understanding transverse relaxation in human brain through its field dependence. Magnetic Resonance in Medicine, 2012, 68, 947-953.	3.0	25
61	Regional neurochemical profiles in the human brain measured by ¹H MRS at 7â€‰T using local B₁ shimming. NMR in Biomedicine, 2012, 25, 152-160.	2.8	104
62	Localized ¹H NMR spectroscopy in different regions of human brain in vivo at 7â€‰T: T₂ relaxation times and concentrations of cerebral metabolites. NMR in Biomedicine, 2012, 25, 332-339.	2.8	117
63	Short echoâ€time 3D radial gradientâ€echo MRI using concurrent dephasing and excitation. Magnetic Resonance in Medicine, 2012, 67, 428-436.	3.0	13
64	Theoretical and experimental evaluation of continuous arterial spin labeling techniques. Magnetic Resonance in Medicine, 2010, 63, 438-446.	3.0	24
65	Multiband multislice GEâ€EPI at 7 tesla, with 16â€fold acceleration using partial parallel imaging with application to high spatial and temporal wholeâ€brain fMRI. Magnetic Resonance in Medicine, 2010, 63, 1144-1153.	3.0	1,329
66	A 32â€channel lattice transmission line array for parallel transmit and receive MRI at 7 tesla. Magnetic Resonance in Medicine, 2010, 63, 1478-1485.	3.0	80
67	Multiplexed Echo Planar Imaging for Sub-Second Whole Brain FMRI and Fast Diffusion Imaging. PLoS ONE, 2010, 5, e15710.	2.5	1,164
68	T1 weighted brain images at 7ÂTesla unbiased for Proton Density, T2âˆ— contrast and RF coil receive B1 sensitivity with simultaneous vessel visualization. NeuroImage, 2009, 46, 432-446.	4.2	260
69	A geometrically adjustable 16â€channel transmit/receive transmission line array for improved RF efficiency and parallel imaging performance at 7 Tesla. Magnetic Resonance in Medicine, 2008, 59, 590-597.	3.0	181
70	Quantitative basal CBF and CBF fMRI of rhesus monkeys using three-coil continuous arterial spin labeling. NeuroImage, 2007, 34, 1074-1083.	4.2	32
71	Primary Motor Area Activation during Precision-Demanding versus Simple Finger Movement. Neurorehabilitation and Neural Repair, 2006, 20, 361-370.	2.9	36
72	Mental maze solving: directional fMRI tuning and population coding in the superior parietal lobule. Experimental Brain Research, 2005, 165, 273-282.	1.5	30

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73	fMRI analysis of ankle movement tracking training in subject with stroke. Experimental Brain Research, 2004, 154, 281-290.	1.5	59
74	Electrical stimulation driving functional improvements and cortical changes in subjects with stroke. Experimental Brain Research, 2004, 154, 450-460.	1.5	271
75	Left and right basal ganglia and frontal activity during language generation: Contributions to lexical, semantic, and phonological processes. Journal of the International Neuropsychological Society, 2003, 9, 1061-1077.	1.8	157
76	Analysis of fMRI and finger tracking training in subjects with chronic stroke. Brain, 2002, 125, 773-788.	7.6	505
77	Semantic monitoring of words with emotional connotation during fMRI: Contribution of anterior left frontal cortex. Journal of the International Neuropsychological Society, 2002, 8, 607-622.	1.8	43
78	Relative Shift in Activity from Medial to Lateral Frontal Cortex During Internally Versus Externally Guided Word Generation. Journal of Cognitive Neuroscience, 2001, 13, 272-283.	2.3	140
79	Left-hemisphere processing of emotional connotation during word generation. NeuroReport, 1999, 10, 2449-2455.	1.2	54
80	C6-Carbon Cluster Anion:Â An Infrared Absorption and Resonance Raman Isotopic Study. Journal of Physical Chemistry A, 1997, 101, 9296-9301.	2.5	22