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List of Publications by Year
in descending order

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Version: 2024-02-01

72 papers	2,515 citations	185998 28 h-index	214527 47 g-index
72 all docs	72 docs citations	72 times ranked	2288 citing authors

#	Article	IF	Citations
1	Quantitative Elastography Methods in Liver Disease: Current Evidence and Future Directions. Radiology, 2018, 286, 738-763.	3.6	215
2	Magnetic resonance elastography (MRE) of the human brain: technique, findings and clinical applications. Physics in Medicine and Biology, 2016, 61, R401-R437.	1.6	176
3	Local mechanical properties of white matter structures in the human brain. NeuroImage, 2013, 79, 145-152.	2.1	158
4	Magnetic resonance elastography of the brain using multishot spiral readouts with selfâ€navigated motion correction. Magnetic Resonance in Medicine, 2013, 70, 404-412.	1.9	93
5	Viscoelasticity of subcortical gray matter structures. Human Brain Mapping, 2016, 37, 4221-4233.	1.9	88
6	Exercise training effects on memory and hippocampal viscoelasticity in multiple sclerosis: a novel application of magnetic resonance elastography. Neuroradiology, 2017, 59, 61-67.	1.1	88
7	Aerobic fitness, hippocampal viscoelasticity, and relational memory performance. NeuroImage, 2017, 153, 179-188.	2.1	87
8	3D multislab, multishot acquisition for fast, wholeâ€brain MR elastography with high signalâ€toâ€noise efficiency. Magnetic Resonance in Medicine, 2014, 71, 477-485.	1.9	84
9	Highâ€resolution ¹Hâ€MRSI of the brain using SPICE: Data acquisition and image reconstruction. Magnetic Resonance in Medicine, 2016, 76, 1059-1070.	1.9	83
10	Medial temporal lobe viscoelasticity and relational memory performance. NeuroImage, 2016, 132, 534-541.	2.1	77
11	High-resolution magnetic resonance elastography reveals differences in subcortical gray matter viscoelasticity between young and healthy older adults. Neurobiology of Aging, 2018, 65, 158-167.	1.5	77
12	Aerobic fitness is associated with greater hippocampal cerebral blood flow in children. Developmental Cognitive Neuroscience, 2016, 20, 52-58.	1.9	72
13	Including Spatial Information in Nonlinear Inversion MR Elastography Using Soft Prior Regularization. IEEE Transactions on Medical Imaging, 2013, 32, 1901-1909.	5.4	59
14	Observation of direction-dependent mechanical properties in the human brain with multi-excitation MR elastography. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 59, 538-546.	1.5	58
15	Mechanical property alterations across the cerebral cortex due to Alzheimerâ€™s disease. Brain Communications, 2020, 2, fcz049.	1.5	57
16	Mechanical properties of the in vivo adolescent human brain. Developmental Cognitive Neuroscience, 2018, 34, 27-33.	1.9	55
17	Standardâ€space atlas of the viscoelastic properties of the human brain. Human Brain Mapping, 2020, 41, 5282-5300.	1.9	48
18	Mechanical properties of porcine brain tissue in vivo and ex vivo estimated by MR elastography. Journal of Biomechanics, 2018, 69, 10-18.	0.9	45

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19	Aging brain mechanics: Progress and promise of magnetic resonance elastography. NeuroImage, 2021, 232, 117889.	2.1	45
20	Removal of nuisance signals from limited and sparse ¹H MRSI data using a unionâ€ofâ€subspaces model. Magnetic Resonance in Medicine, 2016, 75, 488-497.	1.9	44
21	Magnetic resonance elastography for examining developmental changes in the mechanical properties of the brain. Developmental Cognitive Neuroscience, 2018, 33, 176-181.	1.9	44
22	Hippocampal viscoelasticity and episodic memory performance in healthy older adults examined with magnetic resonance elastography. Brain Imaging and Behavior, 2020, 14, 175-185.	1.1	38
23	Simultaneous, multidirectional acquisition of displacement fields in magnetic resonance elastography of the in vivo human brain. Journal of Magnetic Resonance Imaging, 2015, 42, 297-304.	1.9	37
24	Highâ€resolution ¹Hâ€MRSI of the brain using shortâ€TE SPICE. Magnetic Resonance in Medicine, 2017, 77, 467-479.	1.9	37
25	Realâ€time 4D phase unwrapping applied to magnetic resonance elastography. Magnetic Resonance in Medicine, 2015, 73, 2321-2331.	1.9	35
26	Dynamic stability during walking in children with and without cerebral palsy. Gait and Posture, 2019, 72, 182-187.	0.6	32
27	Multi-Excitation Magnetic Resonance Elastography of the Brain: Wave Propagation in Anisotropic White Matter. Journal of Biomechanical Engineering, 2020, 142, .	0.6	32
28	Double dissociation of structure-function relationships in memory and fluid intelligence observed with magnetic resonance elastography. NeuroImage, 2018, 171, 99-106.	2.1	31
29	Micromechanical properties of hydrogels measured with MEMS resonant sensors. Biomedical Microdevices, 2013, 15, 311-319.	1.4	28
30	Effect of Aging on the Viscoelastic Properties of Hippocampal Subfields Assessed with High-Resolution MR Elastography. Cerebral Cortex, 2021, 31, 2799-2811.	1.6	28
31	Altered brain tissue viscoelasticity in pediatric cerebral palsy measured by magnetic resonance elastography. NeuroImage: Clinical, 2019, 22, 101750.	1.4	27
32	The Relationship of Three-Dimensional Human Skull Motion to Brain Tissue Deformation in Magnetic Resonance Elastography Studies. Journal of Biomechanical Engineering, 2017, 139, .	0.6	25
33	A heterogenous, time harmonic, nearly incompressible transverse isotropic finite element brain simulation platform for MR elastography. Physics in Medicine and Biology, 2021, 66, 055029.	1.6	25
34	MR Imaging of Human Brain Mechanics In Vivo: New Measurements to Facilitate the Development of Computational Models of Brain Injury. Annals of Biomedical Engineering, 2021, 49, 2677-2692.	1.3	24
35	Reliable preparation of agarose phantoms for use in quantitative magnetic resonance elastography. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 97, 65-73.	1.5	23
36	Improved Low-Rank Filtering of Magnetic Resonance Spectroscopic Imaging Data Corrupted by Noise and <i>B</i>₀ Field Inhomogeneity. IEEE Transactions on Biomedical Engineering, 2015, 63, 1-1.	2.5	22

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37	Structural and Functional MRI Evidence for Distinct Medial Temporal and Prefrontal Roles in Context-dependent Relational Memory. Journal of Cognitive Neuroscience, 2019, 31, 1857-1872.	1.1	22
38	Insights Into Traumatic Brain Injury From MRI of Harmonic Brain Motion. Journal of Experimental Neuroscience, 2019, 13, 117906951984044.	2.3	22
39	A novel head-neck cooling device for concussion injury in contact sports. Translational Neuroscience, 2015, 6, 20-31.	0.7	20
40	Calibration of a Heterogeneous Brain Model Using a Subject-Specific Inverse Finite Element Approach. Frontiers in Bioengineering and Biotechnology, 2021, 9, 664268.	2.0	18
41	Magnetic Resonance Elastography of Human Hippocampal Subfields: CA3-Dentate Gyrus Viscoelasticity Predicts Relational Memory Accuracy. Journal of Cognitive Neuroscience, 2020, 32, 1704-1713.	1.1	17
42	Associations of functional connectivity and walking performance in multiple sclerosis. Neuropsychologia, 2018, 117, 8-12.	0.7	16
43	Magnetic Resonance Elastography Demonstrating Low Brain Stiffness in a Patient with Low-Pressure Hydrocephalus: Case Report. Pediatric Neurosurgery, 2016, 51, 257-262.	0.4	14
44	Mapping heterogenous anisotropic tissue mechanical properties with transverse isotropic nonlinear inversion MR elastography. Medical Image Analysis, 2022, 78, 102432.	7.0	14
45	Relationships between scalp, brain, and skull motion estimated using magnetic resonance elastography. Journal of Biomechanics, 2018, 73, 40-49.	0.9	13
46	Brain Stiffness Relates to Dynamic Balance Reactions in Children With Cerebral Palsy. Journal of Child Neurology, 2020, 35, 463-471.	0.7	13
47	MR elastography measurement of the effect of passive warmup prior to eccentric exercise on thigh muscle mechanical properties. Journal of Magnetic Resonance Imaging, 2017, 46, 1115-1127.	1.9	12
48	Viscoelasticity of reward and control systems in adolescent risk taking. NeuroImage, 2020, 215, 116850.	2.1	12
49	<scp>OSCILLATE</scp>: A lowâ€rank approach for accelerated magnetic resonance elastography. Magnetic Resonance in Medicine, 2022, 88, 1659-1672.	1.9	12
50	Anisotropic mechanical properties in the healthy human brain estimated with multi-excitation transversely isotropic MR elastography. Brain Multiphysics, 2022, 3, 100051.	0.8	12
51	Quantitative Testing of fMRI-Compatibility of an Electrically Active Mechatronic Device for Robot-Assisted Sensorimotor Protocols. IEEE Transactions on Biomedical Engineering, 2018, 65, 1595-1606.	2.5	11
52	The cross-sectional relationships between age, standing static balance, and standing dynamic balance reactions in typically developing children. Gait and Posture, 2019, 73, 20-25.	0.6	11
53	Hippocampal stiffness in mesial temporal lobe epilepsy measured with MR elastography: Preliminary comparison with healthy participants. NeuroImage: Clinical, 2020, 27, 102313.	1.4	10
54	Correlated noise in brain magnetic resonance elastography. Magnetic Resonance in Medicine, 2022, 87, 1313-1328.	1.9	9

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55	Anteroposterior balance reactions in children with spastic cerebral palsy. Developmental Medicine and Child Neurology, 2020, 62, 700-708.	1.1	8
56	Blood lipid markers are associated with hippocampal viscoelastic properties and memory in humans. Journal of Cerebral Blood Flow and Metabolism, 2021, 41, 1417-1427.	2.4	8
57	Integrating material properties from magnetic resonance elastography into subject-specific computational models for the human brain. Brain Multiphysics, 2021, 2, 100038.	0.8	7
58	Effect of off-frequency sampling in magnetic resonance elastography. Magnetic Resonance Imaging, 2012, 30, 205-212.	1.0	6
59	Quantitative effects of offâ€resonance related distortion on brain mechanical property estimation with magnetic resonance elastography. NMR in Biomedicine, 2022, 35, e4616.	1.6	6
60	Evaluation of cerebral cortex viscoelastic property estimation with nonlinear inversion magnetic resonance elastography. Physics in Medicine and Biology, 2022, 67, 095002.	1.6	6
61	Data-driven uncertainty quantification in computational human head models. Computer Methods in Applied Mechanics and Engineering, 2022, 398, 115108.	3.4	5
62	Brain stiffness following recovery in a patient with an episode of low-pressure hydrocephalus: case report. Child's Nervous System, 2021, 37, 2695-2698.	0.6	3
63	Impact of pulse sequence, analysis method, and signal to noise ratio on the accuracy of intervertebral disc T 2 measurement. JOR Spine, 2020, 3, e1102.	1.5	3
64	Quantifying stability of parameter estimates for in vivo nearly incompressible transversely-isotropic brain MR elastography. Biomedical Physics and Engineering Express, 2022, 8, 035015.	0.6	3
65	The construct and concurrent validity of brief standing sway assessments in children with and without cerebral palsy. Gait and Posture, 2021, 84, 293-299.	0.6	2
66	Altered brain functional connectivity in the frontoparietal network following an ice hockey season. European Journal of Sport Science, 2023, 23, 684-692.	1.4	2
67	Relationships between aggression, sensation seeking, brain stiffness, and head impact exposure: Implications for head impact prevention in ice hockey. Brain and Behavior, 2022, 12, .	1.0	1
68	Relation between cerebrovascular function and hippocampal viscoelastic properties in humans. FASEB Journal, 2021, 35, .	0.2	0
69	Expanding Alzheimerâ€™s Research at the University of Delaware and Beyond:. Delaware Journal of Public Health, 2021, 7, 24-30.	0.2	0
70	Effects of weight loss or exercise on muscle quality in obese older women. FASEB Journal, 2012, 26, 367.3.	0.2	0
71	Association between large elastic artery stiffness and brain mechanical properties. FASEB Journal, 2019, 33, lb487.	0.2	0
72	Effect of Arterial Stiffness and Cerebral Pulsatility on Hippocampal Tissue Integrity in Healthy Adults. FASEB Journal, 2022, 36, .	0.2	0