

# Loukas G Astrakas

## List of Publications by Year in descending order

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110  
papers

2,862  
citations

136940

32  
h-index

206102

48  
g-index

112  
all docs

112  
docs citations

112  
times ranked

3737  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural and functional brain connectivity in moderate- to late preterm infants with low-grade intraventricular hemorrhage. <i>Neuroradiology</i> , 2022, 64, 197-204.	2.2	4
2	The Severity of Sensorimotor Tracts Degeneration May Predict Motor Performance in Chronic Stroke Patients, While Brain Structural Network Dysfunction May Not. <i>Frontiers in Neurology</i> , 2022, 13, 813763.	2.4	0
3	Classification of EEG signals from young adults with dyslexia combining a Brain Computer Interface device and an Interactive Linguistic Software Tool. <i>Biomedical Signal Processing and Control</i> , 2022, 76, 103646.	5.7	18
4	Volumetric apparent diffusion coefficient histogram analysis of the testes in nonobstructive azoospermia: a noninvasive fingerprint of impaired spermatogenesis?. <i>European Radiology</i> , 2022, , .	4.5	3
5	Improving motor function after chronic stroke by interactive gaming with a redesigned MR-compatible hand training device. <i>Experimental and Therapeutic Medicine</i> , 2021, 21, 245.	1.8	5
6	Machine Learning Algorithms and Statistical Approaches for Alzheimer's Disease Analysis Based on Resting-State EEG Recordings: A Systematic Review. <i>International Journal of Neural Systems</i> , 2021, 31, 2130002.	5.2	47
7	Peak Activation Shifts in the Sensorimotor Cortex of Chronic Stroke Patients Following Robot-assisted Rehabilitation Therapy. <i>Open Neuroimaging Journal</i> , 2021, 14, 8-15.	0.2	2
8	Subcortical Band Heterotopia Shows Increased Perfusion on Arterial Spin Labeling Maps. <i>Canadian Journal of Neurological Sciences</i> , 2021, , 1-1.	0.5	0
9	A magnetic resonance imaging study in etiology of nonobstructive azoospermia. <i>Andrology</i> , 2021, , .	3.5	0
10	Pediatric minor head injury imaging practices: results from an ESPR survey. <i>Neuroradiology</i> , 2020, 62, 251-255.	2.2	9
11	Proton MR Spectroscopy in Assessing the Biochemical Milieu of Human Testes. <i>Journal of Magnetic Resonance Imaging</i> , 2020, , .	3.4	2
12	Identification of Brain Functional Networks Using a Model-Based Approach. <i>International Journal of Pattern Recognition and Artificial Intelligence</i> , 2020, 34, 2057004.	1.2	3
13	A preliminary study of the biochemical environment of infertile testes with clinical varicocele. <i>European Journal of Radiology</i> , 2020, 127, 108989.	2.6	7
14	Are there differences in the biochemical profile of bilateral normal testes? A 3.0 T <sup>1</sup> H-MR spectroscopy study. <i>Andrologia</i> , 2020, 52, e13569.	2.1	4
15	Functional connectivity and microstructural changes of the brain in primary Sjögren syndrome: the relationship with depression. <i>Acta Radiologica</i> , 2020, 61, 1684-1694.	1.1	4
16	Is Low-Grade Intraventricular Hemorrhage in Very Preterm Infants an Innocent Condition? Structural and Functional Evaluation of the Brain Reveals Regional Neurodevelopmental Abnormalities. <i>American Journal of Neuroradiology</i> , 2020, 41, 542-547.	2.4	11
17	In vivo biochemical investigation of spermatogenic status: <sup>1</sup> H-MR spectroscopy of testes with nonobstructive azoospermia. <i>European Radiology</i> , 2020, 30, 4284-4294.	4.5	9
18	Diffusion tensor imaging as an adjunct tool for the diagnosis of varicocele. <i>Andrologia</i> , 2019, 51, e13210.	2.1	2

#	ARTICLE	IF	CITATIONS
19	Functional and structural connectivity of the brain in very preterm babies: relationship with gestational age and body and brain growth. <i>Pediatric Radiology</i> , 2019, 49, 1078-1084.	2.0	5
20	Testicular Apparent Diffusion Coefficient and Magnetization Transfer Ratio: Can These MRI Parameters Be Used to Predict Successful Sperm Retrieval in Nonobstructive Azoospermia?. <i>American Journal of Roentgenology</i> , 2019, 213, 610-618.	2.2	11
21	EEG Window Length Evaluation for the Detection of Alzheimer's Disease over Different Brain Regions. <i>Brain Sciences</i> , 2019, 9, 81.	2.3	35
22	Analysis of electroencephalographic signals complexity regarding Alzheimer's Disease. <i>Computers and Electrical Engineering</i> , 2019, 76, 198-212.	4.8	35
23	A robust methodology for classification of epileptic seizures in EEG signals. <i>Health and Technology</i> , 2019, 9, 135-142.	3.6	66
24	Multifocal alterations of white matter accompany the transition from normal cognition to dementia in Parkinson's disease patients. <i>Brain Imaging and Behavior</i> , 2019, 13, 232-240.	2.1	24
25	Diffusion tensor imaging parameters in testes with nonobstructive azoospermia. <i>Journal of Magnetic Resonance Imaging</i> , 2018, 48, 1318-1325.	3.4	16
26	Pseudoexfoliation syndrome without glaucoma: White matter abnormalities detected by conventional MRI and diffusion tensor imaging. <i>European Journal of Radiology</i> , 2018, 99, 82-87.	2.6	4
27	Functional Connectivity in Parkinson Disease Through Mixture Modelling. , 2018, , .		1
28	Brain activation during repeated imagining of chocolate consumption: a functional magnetic resonance imaging study. <i>Hormones</i> , 2018, 17, 367-371.	1.9	2
29	Diffusion-weighted magnetic resonance imaging in the characterization of testicular germ cell neoplasms: Effect of ROI methods on apparent diffusion coefficient values and interobserver variability. <i>European Journal of Radiology</i> , 2017, 89, 1-6.	2.6	17
30	Abnormalities of brain neural circuits related to obesity: A Diffusion Tensor Imaging study. <i>Magnetic Resonance Imaging</i> , 2017, 37, 116-121.	1.8	60
31	The association between multiple sclerosis and spondylosis: When and why. <i>European Journal of Radiology</i> , 2017, 91, 47-51.	2.6	8
32	Magnetic resonance diffusion tensor imaging of the testis: Preliminary observations. <i>European Journal of Radiology</i> , 2017, 95, 265-270.	2.6	16
33	EEG Classification and Short-Term Epilepsy Prognosis Using Brain Computer Interface Software. , 2017, , .		7
34	Wavelet Based Classification of Epileptic Seizures in EEG Signals. , 2017, , .		16
35	Technical Note: Independent component analysis for quality assurance in functional MRI. <i>Medical Physics</i> , 2016, 43, 983-992.	3.0	3
36	Key concepts in MR spectroscopy and practical approaches to gaining biochemical information in children. <i>Pediatric Radiology</i> , 2016, 46, 941-951.	2.0	14

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37	Diffusion tensor imaging in children with tuberous sclerosis complex: tract-based spatial statistics assessment of brain microstructural changes. <i>Pediatric Radiology</i> , 2016, 46, 1158-1164.	2.0	7
38	Multimodal imaging evaluation of excessive daytime sleepiness in Parkinson's disease. <i>International Journal of Neuroscience</i> , 2016, 126, 422-428.	1.6	19
39	Magnetization transfer imaging of normal and abnormal testis: preliminary results. <i>European Radiology</i> , 2016, 26, 613-621.	4.5	11
40	MR Spectra of Normal Adult Testes and Variations with Age: Preliminary Observations. <i>European Radiology</i> , 2016, 26, 2261-2267.	4.5	15
41	Apparent diffusion coefficient values and dynamic contrast enhancement patterns in differentiating seminomas from nonseminomatous testicular neoplasms. <i>European Journal of Radiology</i> , 2015, 84, 1219-1226.	2.6	34
42	The role of apparent diffusion coefficient values in detecting testicular intraepithelial neoplasia: Preliminary results. <i>European Journal of Radiology</i> , 2015, 84, 828-833.	2.6	11
43	Electric field effects on alanine tripeptide in sodium halide solutions. <i>Electromagnetic Biology and Medicine</i> , 2015, 34, 361-369.	1.4	2
44	Apparent diffusion coefficient values of normal testis and variations with age. <i>Asian Journal of Andrology</i> , 2014, 16, 493.	1.6	20
45	Marchiafava-Bignami disease. <i>Neurology</i> , 2014, 83, 1219-1219.	1.1	9
46	Body growth and brain development in premature babies: an MRI study. <i>Pediatric Radiology</i> , 2014, 44, 297-304.	2.0	14
47	Brain involvement in patients with inflammatory bowel disease: a voxel-based morphometry and diffusion tensor imaging study. <i>European Radiology</i> , 2014, 24, 2499-2506.	4.5	53
48	White Matter Water Diffusion Changes in Primary Sjogren Syndrome. <i>American Journal of Neuroradiology</i> , 2014, 35, 680-685.	2.4	20
49	Dynamic Contrast-Enhanced Subtraction MRI for Characterizing Intratesticular Mass Lesions. <i>American Journal of Roentgenology</i> , 2013, 200, 578-585.	2.2	50
50	Resting state fMRI analysis using a spatial regression mixture model. , 2013, , .		4
51	Perirenal Fat Invasion on Renal Cell Carcinoma. <i>Journal of Computer Assisted Tomography</i> , 2013, 37, 450-457.	0.9	19
52	Diffusion tensor and volumetric magnetic resonance imaging using an MR-compatible hand-induced robotic device suggests training-induced neuroplasticity in patients with chronic stroke. <i>International Journal of Molecular Medicine</i> , 2013, 32, 995-1000.	4.0	23
53	fMRI as a molecular imaging procedure for the functional reorganization of motor systems in chronic stroke. <i>Molecular Medicine Reports</i> , 2013, 8, 775-779.	2.4	21
54	Voxel-Based Morphometry and Diffusion Tensor Imaging of the Optic Pathway in Primary Open-Angle Glaucoma: A Preliminary Study. <i>American Journal of Neuroradiology</i> , 2012, 33, 128-134.	2.4	93

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55	Structural destabilization of chignolin under the influence of oscillating electric fields. <i>Journal of Applied Physics</i> , 2012, 111, .	2.5	73
56	Investigation of Unmedicated Early Onset Restless Legs Syndrome by Voxel-Based Morphometry, T2 Relaxometry, and Functional MR Imaging during the Night-Time Hours. <i>American Journal of Neuroradiology</i> , 2012, 33, 667-672.	2.4	73
57	Functional MRI using robotic MRI compatible devices for monitoring rehabilitation from chronic stroke in the molecular medicine era (Review). <i>International Journal of Molecular Medicine</i> , 2012, 29, 963-73.	4.0	11
58	Diffusion tensor and dynamic susceptibility contrast MRI in glioblastoma. <i>Clinical Neurology and Neurosurgery</i> , 2012, 114, 607-612.	1.4	27
59	A Sparse and Spatially Constrained Generative Regression Model for fMRI Data Analysis. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 58-67.	4.2	34
60	Voxel-based diffusion tensor imaging detects pyramidal tract degeneration in primary lateral sclerosis. <i>British Journal of Radiology</i> , 2011, 84, 78-80.	2.2	10
61	Electric field effects on chignolin conformation. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	54
62	Pediatric Brain Tumors: Magnetic Resonance Spectroscopic Imaging. , 2011, , .		1
63	Combining magnetic resonance spectroscopy and molecular genomics offers better accuracy in brain tumor typing and prediction of survival than either methodology alone. <i>International Journal of Oncology</i> , 2011, 38, 1113-27.	3.3	5
64	Diffuse periventricular leukomalacia in preterm children: assessment of grey matter changes by MRI. <i>Pediatric Radiology</i> , 2011, 41, 1545-1551.	2.0	9
65	CNS Involvement in Primary Sjögren Syndrome: Assessment of Gray and White Matter Changes With MRI and Voxel-Based Morphometry. <i>American Journal of Roentgenology</i> , 2011, 197, 1207-1212.	2.2	36
66	Voxel-Based Morphometry and Voxel-Based Relaxometry in Parkinsonian Variant of Multiple System Atrophy. <i>Journal of Neuroimaging</i> , 2010, 20, 260-266.	2.0	30
67	Shifting from region of interest (ROI) to voxel-based analysis in human brain mapping. <i>Pediatric Radiology</i> , 2010, 40, 1857-1867.	2.0	56
68	In vivo high-resolution magic angle spinning magnetic resonance spectroscopy of <i>Drosophila melanogaster</i> at 14.1 T shows trauma in aging and in innate immune-deficiency is linked to reduced insulin signaling. <i>International Journal of Molecular Medicine</i> , 2010, 26, 175-84.	4.0	17
69	Periventricular leukomalacia in preterm children: assessment of grey and white matter and cerebrospinal fluid changes by MRI. <i>Pediatric Radiology</i> , 2009, 39, 1327-1332.	2.0	23
70	Temporomandibular joint involvement in juvenile idiopathic arthritis: clinical predictors of magnetic resonance imaging signs. <i>European Radiology</i> , 2009, 19, 693-700.	4.5	57
71	Connectivity alterations assessed by combining fMRI and MR-compatible hand robots in chronic stroke. <i>NeuroImage</i> , 2009, 47, T90-T97.	4.2	54
72	Age-related grey matter changes in preterm infants: An MRI study. <i>NeuroImage</i> , 2009, 47, 1148-1153.	4.2	44

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73	T2 relaxometry and fMRI of the brain in late-onset restless legs syndrome. <i>Neurology</i> , 2008, 71, 911-916.	1.1	66
74	Reduced rate of adenosine triphosphate synthesis by in vivo <sup>31</sup> P nuclear magnetic resonance spectroscopy and downregulation of PGC-1 $\beta$ in distal skeletal muscle following burn. <i>International Journal of Molecular Medicine</i> , 2008, , .	4.0	5
75	Functional MRI of Rehabilitation in Chronic Stroke Patients Using Novel MR-Compatible Hand Robots. <i>Open Neuroimaging Journal</i> , 2008, 2, 94-101.	0.2	19
76	Molecular classification of brain tumor biopsies using solid-state magic angle spinning proton magnetic resonance spectroscopy and robust classifiers. <i>International Journal of Oncology</i> , 2008, 33, 1017-25.	3.3	8
77	Reduced rate of adenosine triphosphate synthesis by in vivo <sup>31</sup> P nuclear magnetic resonance spectroscopy and downregulation of PGC-1 $\beta$ in distal skeletal muscle following burn. <i>International Journal of Molecular Medicine</i> , 2008, 21, 201-8.	4.0	11
78	Murine intramyocellular lipids quantified by NMR act as metabolic biomarkers in burn trauma. <i>International Journal of Molecular Medicine</i> , 2008, 21, 825-32.	4.0	12
79	Combination of high-resolution magic angle spinning proton magnetic resonance spectroscopy and microscale genomics to type brain tumor biopsies. <i>International Journal of Molecular Medicine</i> , 2007, , .	4.0	14
80	Liver, bone marrow, pancreas and pituitary gland iron overload in young and adult thalassemic patients: a T2 relaxometry study. <i>European Radiology</i> , 2007, 17, 3025-3030.	4.5	60
81	MRI evaluation of tissue iron burden in patients with $\beta$ <sup>0</sup> -thalassaemia major. <i>Pediatric Radiology</i> , 2007, 37, 1191-1200.	2.0	68
82	Combination of high-resolution magic angle spinning proton magnetic resonance spectroscopy and microscale genomics to type brain tumor biopsies. <i>International Journal of Molecular Medicine</i> , 2007, 20, 199-208.	4.0	42
83	fMRI-compatible rehabilitation hand device. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2006, 3, 24.	4.6	44
84	Magnetization transfer ratio in the brain of preterm subjects: age-related changes during the first 2 years of life. <i>European Radiology</i> , 2006, 16, 215-220.	4.5	34
85	Myelination process in preterm subjects with periventricular leucomalacia assessed by magnetization transfer ratio. <i>Pediatric Radiology</i> , 2006, 36, 934-939.	2.0	22
86	The clinical perspective of large scale projects: A case study of multiparametric MR imaging of pediatric brain tumors. <i>Oncology Reports</i> , 2006, 15, 1065-1069.	2.6	2
87	Uncoupling protein 3 expression and intramyocellular lipid accumulation by NMR following local burn trauma. <i>International Journal of Molecular Medicine</i> , 2006, 18, 1223-9.	4.0	8
88	MR Compatible ERF Driven Hand Device for Rehabilitation After Stroke. , 2005, , 1705.		2
89	Magnetization transfer ratio measurements of the brain in children with tuberous sclerosis complex. <i>Pediatric Radiology</i> , 2005, 35, 1071-1074.	2.0	13
90	Proton NMR spectroscopy shows lipids accumulate in skeletal muscle in response to burn trauma-induced apoptosis. <i>FASEB Journal</i> , 2005, 19, 1431-1440.	0.5	31

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91	Burn injury causes mitochondrial dysfunction in skeletal muscle. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 5368-5373.	7.1	93
92	Noninvasive Magnetic Resonance Spectroscopic Imaging Biomarkers to Predict the Clinical Grade of Pediatric Brain Tumors. Clinical Cancer Research, 2004, 10, 8220-8228.	7.0	110
93	MRI and $^1\text{H};^{1/2}\text{MRS}$ findings in Smith-Lemli-Opitz syndrome. Neuroradiology, 2004, 46, 3-14.	2.2	48
94	Spectroscopic and perfusion magnetic resonance imaging predictors of progression in pediatric brain tumors. Cancer, 2004, 100, 1246-1256.	4.1	104
95	Multiparametric MR assessment of pediatric brain tumors. Neuroradiology, 2003, 45, 1-10.	2.2	52
96	Biochemical characterization of pediatric brain tumors by using in vivo and ex vivo magnetic resonance spectroscopy. Journal of Neurosurgery, 2002, 96, 1023-1031.	1.6	103
97	Prediction of Adverse Outcome with Cerebral Lactate Level and Apparent Diffusion Coefficient in Infants with Perinatal Asphyxia. Radiology, 2002, 225, 859-870.	7.3	110
98	Activation of Attention Networks Using Frequency Analysis of a Simple Auditory“Motor Paradigm. NeuroImage, 2002, 15, 961-969.	4.2	0
99	Neuroimaging in pediatric brain tumors: Gd-DTPA-enhanced, hemodynamic, and diffusion MR imaging compared with MR spectroscopic imaging. American Journal of Neuroradiology, 2002, 23, 322-33.	2.4	56
100	Proton magnetic spectroscopic imaging of the child's brain: the response of tumors to treatment. Neuroradiology, 2001, 43, 169-177.	2.2	47
101	Magnetic Resonance Spectroscopy and Magnetic Resonance Imaging Findings in Krabbe's Disease. Journal of Child Neurology, 2001, 16, 522-526.	1.4	31
102	Electron spin echo envelope modulation spectroscopy in mixed alkali silicate glasses. Journal of Chemical Physics, 1999, 110, 6871-6875.	3.0	9
103	Time domain analysis of electron spin echo modulation envelopes in lithium silicate glasses. Journal of Non-Crystalline Solids, 1999, 244, 205-210.	3.1	3
104	Size distribution and EPR of silver nanoparticles in SiO <sub>2</sub> matrix. Journal of Non-Crystalline Solids, 1998, 224, 17-22.	3.1	30
105	Hyperfine sublevel correlation spectroscopy in lithium silicate glasses. Journal of Chemical Physics, 1998, 109, 8612-8616.	3.0	18
106	Electronic structure of B <sub>2</sub> O <sub>3</sub> glass studied by one- and two-dimensional electron-spin-echo envelope modulation spectroscopy. Physical Review B, 1998, 58, 11420-11434.	3.2	42
107	Molecular classification of brain tumor biopsies using solid-state magic angle spinning proton magnetic resonance spectroscopy and robust classifiers. International Journal of Oncology, 1992, 33, 1017.	3.3	1
108	Predicting survival of children with CNS tumors using proton magnetic resonance spectroscopic imaging biomarkers. International Journal of Oncology, 0, , .	3.3	22

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109	Uncoupling protein 3 expression and intramyocellular lipid accumulation by NMR following local burn trauma. International Journal of Molecular Medicine, 0, , .	4.0	5
110	Murine intramyocellular lipids quantified by NMR act as metabolic biomarkers in burn trauma. International Journal of Molecular Medicine, 0, , .	4.0	7