

Arijitt Borthakur

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/365544/publications.pdf>

Version: 2024-02-01

92
papers

5,521
citations

57631

44
h-index

79541

73
g-index

93
all docs

93
docs citations

93
times ranked

3341
citing authors

#	ARTICLE	IF	CITATIONS
1	Proteoglycan-induced changes in T1 ρ -relaxation of articular cartilage at 4T. <i>Magnetic Resonance in Medicine</i> , 2001, 46, 419-423.	1.9	351
2	²³ Na MRI accurately measures fixed charge density in articular cartilage. <i>Magnetic Resonance in Medicine</i> , 2002, 47, 284-291.	1.9	263
3	Sodium and T1 ρ -MRI for molecular and diagnostic imaging of articular cartilage. <i>NMR in Biomedicine</i> , 2006, 19, 781-821.	1.6	259
4	Proteoglycan Depletion-Induced Changes in Transverse Relaxation Maps of Cartilage. <i>Academic Radiology</i> , 2002, 9, 1388-1394.	1.3	203
5	Sensitivity of MRI to proteoglycan depletion in cartilage: comparison of sodium and proton MRI. <i>Osteoarthritis and Cartilage</i> , 2000, 8, 288-293.	0.6	199
6	Assessment of Human Disc Degeneration and Proteoglycan Content Using T1 ρ -weighted Magnetic Resonance Imaging. <i>Spine</i> , 2006, 31, 1253-1257.	1.0	187
7	Proteoglycan Loss in Human Knee Cartilage: Quantitation with Sodium MR Imaging-Feasibility Study. <i>Radiology</i> , 2004, 231, 900-905.	3.6	168
8	3D-T1 ρ -relaxation mapping of articular cartilage In vivo assessment of early degenerative changes in symptomatic osteoarthritic subjects. <i>Academic Radiology</i> , 2004, 11, 741-749.	1.3	148
9	Artifacts in T1 ρ -weighted imaging: Compensation for B1 and B0 field imperfections. <i>Journal of Magnetic Resonance</i> , 2007, 186, 75-85.	1.2	142
10	Correlation of T1 ρ with fixed charge density in cartilage. <i>Journal of Magnetic Resonance Imaging</i> , 2004, 20, 519-525.	1.9	137
11	Knee Articular Cartilage Damage in Osteoarthritis: Analysis of MR Image Biomarker Reproducibility in ACRIN-PA 4001 Multicenter Trial. <i>Radiology</i> , 2011, 258, 832-842.	3.6	135
12	Reduction of residual dipolar interaction in cartilage by spin-lock technique. <i>Magnetic Resonance in Medicine</i> , 2004, 52, 1103-1109.	1.9	126
13	Sodium Visibility and Quantitation in Intact Bovine Articular Cartilage Using High Field ²³ Na MRI and MRS. <i>Journal of Magnetic Resonance</i> , 2000, 142, 24-31.	1.2	113
14	In Vivo Proton MR Three-dimensional T1 ρ -Mapping of Human Articular Cartilage: Initial Experience. <i>Radiology</i> , 2003, 229, 269-274.	3.6	108
15	In vivo quantification of human lumbar disc degeneration using T1 ρ -weighted magnetic resonance imaging. <i>European Spine Journal</i> , 2006, 15, 338-344.	1.0	106
16	Water distribution patterns inside bovine articular cartilage as visualized by ¹ H magnetic resonance imaging. <i>Osteoarthritis and Cartilage</i> , 2001, 9, 533-538.	0.6	102
17	Artifacts in T1 ρ -weighted imaging: correction with a self-compensating spin-locking pulse. <i>Journal of Magnetic Resonance</i> , 2003, 162, 113-121.	1.2	99
18	3D-T1 ρ -relaxation mapping of articular cartilage. <i>Academic Radiology</i> , 2004, 11, 741-749.	1.3	98

#	ARTICLE	IF	CITATIONS
19	Noninvasive Quantification of Human Nucleus Pulposus Pressure with Use of T1 ρ -Weighted Magnetic Resonance Imaging. Journal of Bone and Joint Surgery - Series A, 2008, 90, 796-802.	1.4	98
20	Sodium MR Imaging Detection of Mild Alzheimer Disease: Preliminary Study. American Journal of Neuroradiology, 2009, 30, 978-984.	1.2	94
21	Detection of changes in articular cartilage proteoglycan by T1 ρ -magnetic resonance imaging. Journal of Orthopaedic Research, 2005, 23, 102-108.	1.2	90
22	Biomarkers for Early Detection of Alzheimer Pathology. NeuroSignals, 2008, 16, 11-18.	0.5	83
23	Proton spin-lock ratio imaging for quantitation of glycosaminoglycans in articular cartilage. Journal of Magnetic Resonance Imaging, 2003, 17, 114-121.	1.9	80
24	In Vivo Triple Quantum Filtered Twisted Projection Sodium MRI of Human Articular Cartilage. Journal of Magnetic Resonance, 1999, 141, 286-290.	1.2	78
25	T1 ρ -Magnetic Resonance Imaging and Discography Pressure as Novel Biomarkers for Disc Degeneration and Low Back Pain. Spine, 2011, 36, 2190-2196.	1.0	78
26	T1 ρ -Magnetic Resonance Imaging Quantification of Early Lumbar Intervertebral Disc Degeneration in Healthy Young Adults. Spine, 2012, 37, 1224-1230.	1.0	73
27	Sodium magnetic resonance imaging of proteoglycan depletion in an in vivo model of osteoarthritis1. Academic Radiology, 2004, 11, 21-28.	1.3	72
28	T1 ρ -MRI of Alzheimer's disease. NeuroImage, 2008, 41, 1199-1205.	2.1	72
29	T1 ρ -prepared balanced gradient echo for rapid 3D T1 ρ -MRI. Journal of Magnetic Resonance Imaging, 2008, 28, 744-754.	1.9	67
30	Quantifying Sodium in the Human Wrist in Vivo by Using MR Imaging. Radiology, 2002, 224, 598-602.	3.6	65
31	In vivo measurement of plaque burden in a mouse model of Alzheimer's disease. Journal of Magnetic Resonance Imaging, 2006, 24, 1011-1017.	1.9	64
32	Novel diagnostic and prognostic methods for disc degeneration and low back pain. Spine Journal, 2015, 15, 1919-1932.	0.6	62
33	Effect of Radio Frequency Inhomogeneity Correction on the Reproducibility of Intra-Cranial Volumes Using MR Image Data. Magnetic Resonance in Medicine, 1995, 33, 396-400.	1.9	61
34	Early marker for Alzheimer's disease: Hippocampus T1rho ($T_{1\rho}$) estimation. Journal of Magnetic Resonance Imaging, 2009, 29, 1008-1012.	1.9	61
35	In vivo measurement of T1 ρ dispersion in the human brain at 1.5 tesla. Journal of Magnetic Resonance Imaging, 2004, 19, 403-409.	1.9	60
36	Three-dimensional T1 ρ -weighted MRI at 1.5 Tesla. Journal of Magnetic Resonance Imaging, 2003, 17, 730-736.	1.9	59

#	ARTICLE	IF	CITATIONS
37	In vivo measurement of glutamate loss is associated with synapse loss in a mouse model of tauopathy. <i>NeuroImage</i> , 2014, 101, 185-192.	2.1	57
38	Validation of Sodium Magnetic Resonance Imaging of Intervertebral Disc. <i>Spine</i> , 2010, 35, 505-510.	1.0	55
39	T1rho (T1 ρ) MR imaging in Alzheimer's™ disease and Parkinson's™ disease with and without dementia. <i>Journal of Neurology</i> , 2011, 258, 380-385.	1.8	53
40	In vivo quantification of T1 ρ using a multislice spin-lock pulse sequence. <i>Magnetic Resonance in Medicine</i> , 2004, 52, 1453-1458.	1.9	51
41	Cartilage volume quantification via Live Wire segmentation ¹ . <i>Academic Radiology</i> , 2004, 11, 1389-1395.	1.3	49
42	T1 ρ -MRI quantification of arthroscopically confirmed cartilage degeneration. <i>Magnetic Resonance in Medicine</i> , 2010, 63, 1376-1382.	1.9	49
43	Chronic kidney disease, cerebral blood flow, and white matter volume in hypertensive adults. <i>Neurology</i> , 2016, 86, 1208-1216.	1.5	48
44	Method for reduced SART1 ρ -weighted MRI. <i>Magnetic Resonance in Medicine</i> , 2004, 51, 1096-1102.	1.9	47
45	T1 ρ -relaxation mapping of human femoral-tibial cartilage in vivo. <i>Journal of Magnetic Resonance Imaging</i> , 2003, 18, 336-341.	1.9	44
46	Association of Intensive vs Standard Blood Pressure Control With Magnetic Resonance Imaging Biomarkers of Alzheimer Disease. <i>JAMA Neurology</i> , 2021, 78, 568.	4.5	44
47	Abbreviated Breast Magnetic Resonance Imaging for Supplemental Screening of Women With Dense Breasts and Average Risk. <i>Journal of Clinical Oncology</i> , 2020, 38, 3874-3882.	0.8	40
48	In vivo GluCEST MRI: Reproducibility, background contribution and source of glutamate changes in the MPTP model of Parkinson's™ disease. <i>Scientific Reports</i> , 2018, 8, 2883.	1.6	38
49	Gender-based analysis of cortical thickness and structural connectivity in Parkinson's™ disease. <i>Journal of Neurology</i> , 2016, 263, 2308-2318.	1.8	32
50	Reproducibility of 2D-GluCEST in healthy human volunteers at 7T. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 2033-2039.	1.9	32
51	Pulse sequence for multislice T1 ρ -weighted MRI. <i>Magnetic Resonance in Medicine</i> , 2004, 51, 362-369.	1.9	31
52	Application of the keyhole technique to T1 ρ relaxation mapping. <i>Journal of Magnetic Resonance Imaging</i> , 2003, 18, 745-749.	1.9	29
53	T1 ρ -contrast in functional magnetic resonance imaging. <i>Magnetic Resonance in Medicine</i> , 2005, 54, 1155-1162.	1.9	29
54	A pulse sequence for rapid in vivo spin-locked MRI. <i>Journal of Magnetic Resonance Imaging</i> , 2006, 23, 591-596.	1.9	29

#	ARTICLE	IF	CITATIONS
55	Advances in Magnetic Resonance Imaging for the Assessment of Degenerative Disc Disease of the Lumbar Spine. <i>Seminars in Spine Surgery</i> , 2007, 19, 65-71.	0.1	29
56	Estimation of the regional cerebral metabolic rate of oxygen consumption with proton detected 17O MRI during precision 17O2 inhalation in swine. <i>Journal of Neuroscience Methods</i> , 2009, 179, 29-39.	1.3	29
57	T1rho MRI and CSF biomarkers in diagnosis of Alzheimer's disease. <i>NeuroImage: Clinical</i> , 2015, 7, 598-604.	1.4	29
58	T1ρ-MR Imaging of the Human Wrist in Vivo. <i>Academic Radiology</i> , 2003, 10, 614-619.	1.3	27
59	Early Intervertebral Disc Degeneration Changes in Asymptomatic Weightlifters Assessed by T1ρ-Magnetic Resonance Imaging. <i>Spine</i> , 2014, 39, 1881-1886.	1.0	27
60	Compensation for spin-lock artifacts using an off-resonance rotary echo in T1ρ-off-weighted imaging. <i>Magnetic Resonance in Medicine</i> , 2007, 57, 2-7.	1.9	26
61	T1ρ-MRI in Alzheimer's Disease: Detection of Pathological Changes in Medial Temporal Lobe. , 2011, 21, e86-e90.		26
62	Fast MRI of RF heating via phase difference mapping. <i>Magnetic Resonance in Medicine</i> , 2002, 47, 492-498.	1.9	24
63	The UTE Disc Sign on MRI. <i>Spine</i> , 2018, 43, 503-511.	1.0	24
64	T2*-weighted contrast in MR images of the human brain. <i>Magnetic Resonance in Medicine</i> , 2004, 52, 1223-1227.	1.9	21
65	Magnetization transfer ratio mapping of intervertebral disc degeneration. <i>Magnetic Resonance in Medicine</i> , 2010, 64, 1520-1528.	1.9	21
66	Imaging Cartilage Physiology. <i>Topics in Magnetic Resonance Imaging</i> , 2010, 21, 291-296.	0.7	20
67	Quantitative cartilage degeneration associated with spontaneous osteoarthritis in a guinea pig model. <i>Journal of Magnetic Resonance Imaging</i> , 2012, 35, 891-898.	1.9	20
68	Axial T1ρ-MRI as a diagnostic imaging modality to quantify proteoglycan concentration in degenerative disc disease. <i>European Spine Journal</i> , 2015, 24, 2395-2401.	1.0	19
69	MR imaging of RF heating using a paramagnetic doped agarose phantom. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2000, 10, 114-121.	1.1	18
70	Novel Imaging of the Intervertebral Disk and Pain. <i>Global Spine Journal</i> , 2013, 3, 127-132.	1.2	17
71	Comparison of Study Activity Times for "Full" versus "Fast MRI" for Breast Cancer Screening. <i>Journal of the American College of Radiology</i> , 2019, 16, 1046-1051.	0.9	16
72	Effect of IL-1?-induced macromolecular depletion on residual quadrupolar interaction in articular cartilage. <i>Journal of Magnetic Resonance Imaging</i> , 2002, 15, 315-323.	1.9	14

#	ARTICLE	IF	CITATIONS
73	Measurement of intervertebral disc pressure with T_2^* MRI. <i>Magnetic Resonance in Medicine</i> , 2010, 64, 1721-1727.	1.9	14
74	Quantification of abdominal fat from computed tomography using deep learning and its association with electronic health records in an academic biobank. <i>Journal of the American Medical Informatics Association: JAMIA</i> , 2021, 28, 1178-1187.	2.2	14
75	T_2^* -Magnetic Resonance Imaging to Assess Cartilage Damage After Primary Shoulder Dislocation. <i>American Journal of Sports Medicine</i> , 2016, 44, 2800-2806.	1.9	13
76	T_2^* -weighted MRI using a surface coil to transmit spin-lock pulses. <i>Journal of Magnetic Resonance</i> , 2004, 167, 306-316.	1.2	12
77	Temperature-Dependent Chemical Shift and Relaxation Times of ^{23}Na in $\text{Na}_4\text{HTm}[\text{DOTP}]$. <i>Journal of Magnetic Resonance</i> , 2000, 143, 213-216.	1.2	10
78	Time-Domain Quantification of Multiple-Quantum-Filtered ^{23}Na Signal Using Continuous Wavelet Transform Analysis. <i>Journal of Magnetic Resonance</i> , 2000, 142, 341-347.	1.2	8
79	Single Shot T_2^* -Magnetic Resonance Imaging Of Metabolically Generated Water In Vivo. <i>Advances in Experimental Medicine and Biology</i> , 2009, 645, 279-286.	0.8	8
80	Spin-locked balanced steady-state free-precession (sSSFP). <i>Magnetic Resonance in Medicine</i> , 2009, 62, 993-1001.	1.9	6
81	Improving Performance by Using a Radiology Extender. <i>Journal of the American College of Radiology</i> , 2018, 15, 1300-1303.	0.9	5
82	Three-dimensional kinematic stress magnetic resonance image analysis shows promise for detecting altered anatomical relationships of tissues in the cervical spine associated with painful radiculopathy. <i>Medical Hypotheses</i> , 2013, 81, 738-744.	0.8	2
83	Frontiers in Molecular Imaging of Cartilage: Future Developments. , 2011, , 213-227.		2
84	Skeletal Muscle MR Imaging Beyond Protons: With a Focus on Sodium MRI in Musculoskeletal Applications. <i>Medical Radiology</i> , 2013, , 115-133.	0.0	1
85	Zone- and layer-specific differences in proteoglycan content in patellofemoral pain syndrome are detectable on T_2^* -MRI. <i>Skeletal Radiology</i> , 2020, 49, 1397-1402.	1.2	1
86	Contributory presentations/posters. <i>Journal of Biosciences</i> , 1999, 24, 33-198.	0.5	0
87	MR imaging of RF heating using a paramagnetic doped agarose phantom. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2000, 10, 114-121.	1.1	0
88	419 QUANTIFICATION OF AGE DEPENDENT MOLECULAR CHANGES IN GUINEA PIG OA MODEL USING T_2^* -MRI. <i>Osteoarthritis and Cartilage</i> , 2010, 18, S186-S187.	0.6	0
89	High resolution T_2^* -mapping of human knee cartilage at 7T. <i>Osteoarthritis and Cartilage</i> , 2013, 21, S200-S201.	0.6	0
90	IN RESPONSE. <i>Spine</i> , 2013, 38, 202.	1.0	0

#	ARTICLE	IF	CITATIONS
91	Imaging Modalities for Studying Disc Pathology. , 2014, , 201-212.		0
92	Imaging technologies of the spinal discs. , 2022, , 85-103.		0