

Sharmila Majumdar

List of Publications by Year in descending order

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171
papers

10,199
citations

30070

54
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38395

95
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181
all docs

181
docs citations

181
times ranked

6843
citing authors

#	ARTICLE	IF	CITATIONS
1	T2 Relaxation Time of Cartilage at MR Imaging: Comparison with Severity of Knee Osteoarthritis. Radiology, 2004, 232, 592-598.	7.3	475
2	Osteoarthritis: MR Imaging Findings in Different Stages of Disease and Correlation with Clinical Findings. Radiology, 2003, 226, 373-381.	7.3	444
3	Reproducibility of direct quantitative measures of cortical bone microarchitecture of the distal radius and tibia by HR-pQCT. Bone, 2010, 47, 519-528.	2.9	397
4	Federated learning for predicting clinical outcomes in patients with COVID-19. Nature Medicine, 2021, 27, 1735-1743.	30.7	300
5	Use of 2D U-Net Convolutional Neural Networks for Automated Cartilage and Meniscus Segmentation of Knee MR Imaging Data to Determine Relaxometry and Morphometry. Radiology, 2018, 288, 177-185.	7.3	291
6	Age- and gender-related differences in the geometric properties and biomechanical significance of intracortical porosity in the distal radius and tibia. Journal of Bone and Mineral Research, 2010, 25, 983-993.	2.8	271
7	In Vivo High Resolution MRI of the Calcaneus: Differences in Trabecular Structure in Osteoporosis Patients. Journal of Bone and Mineral Research, 1998, 13, 1175-1182.	2.8	261
8	T2 relaxation time measurements in osteoarthritis. Magnetic Resonance Imaging, 2004, 22, 673-682.	1.8	212
9	A longitudinal HR-pQCT study of alendronate treatment in postmenopausal women with low bone density: Relations among density, cortical and trabecular microarchitecture, biomechanics, and bone turnover. Journal of Bone and Mineral Research, 2010, 25, 2558-2571.	2.8	210
10	Quantitative MRI using T1 ρ and T2 in human osteoarthritic cartilage specimens: correlation with biochemical measurements and histology. Magnetic Resonance Imaging, 2011, 29, 324-334.	1.8	206
11	T1 ρ , T2 and focal knee cartilage abnormalities in physically active and sedentary healthy subjects versus early OA patients—a 3.0-Tesla MRI study. European Radiology, 2009, 19, 132-143.	4.5	195
12	Cartilage in Anterior Cruciate Ligament-Reconstructed Knees: MR Imaging T1 ρ and T2—Initial Experience with 1-year Follow-up. Radiology, 2011, 258, 505-514.	7.3	192
13	The Skeletal Structure of Insulin-Like Growth Factor I-Deficient Mice. Journal of Bone and Mineral Research, 2001, 16, 2320-2329.	2.8	175
14	In vivo T1 ρ mapping in cartilage using 3D magnetization-prepared angle-modulated partitioned k-space spoiled gradient echo snapshots (3D MAPSS). Magnetic Resonance in Medicine, 2008, 59, 298-307.	3.0	163
15	A Comparative Study of Trabecular Bone Properties in the Spine and Femur Using High Resolution MRI and CT. Journal of Bone and Mineral Research, 1998, 13, 122-132.	2.8	159
16	In vivo 3T spiral imaging based multi-slice T1 ρ mapping of knee cartilage in osteoarthritis. Magnetic Resonance in Medicine, 2005, 54, 929-936.	3.0	158
17	Spatial distribution and relationship of T1 ρ and T2 relaxation times in knee cartilage with osteoarthritis. Magnetic Resonance in Medicine, 2009, 61, 1310-1318.	3.0	129
18	Inter-subject comparison of MRI knee cartilage thickness. Medical Image Analysis, 2008, 12, 120-135.	11.6	127

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19	In Vivo Determination of Bone Structure in Postmenopausal Women: A Comparison of HR-pQCT and High-Field MR Imaging. <i>Journal of Bone and Mineral Research</i> , 2008, 23, 463-474.	2.8	122
20	Relationship between trabecular bone structure and articular cartilage morphology and relaxation times in early OA of the knee joint using parallel MRI at 3T. <i>Osteoarthritis and Cartilage</i> , 2008, 16, 1150-1159.	1.3	119
21	Application of fractal geometry techniques to the study of trabecular bone. <i>Medical Physics</i> , 1993, 20, 1611-1619.	3.0	118
22	In vivo 3.0-tesla magnetic resonance T_1 and T_2 relaxation mapping in subjects with intervertebral disc degeneration and clinical symptoms. <i>Magnetic Resonance in Medicine</i> , 2010, 63, 1193-1200.	3.0	116
23	Magnetic Resonance Imaging Measurement of Relaxation and Water Diffusion in the Human Lumbar Intervertebral Disc Under Compression In Vitro. <i>Spine</i> , 2001, 26, E437-E444.	2.0	113
24	A pilot, two-year longitudinal study of the interrelationship between trabecular bone and articular cartilage in the osteoarthritic knee. <i>Osteoarthritis and Cartilage</i> , 2004, 12, 997-1005.	1.3	109
25	Applying Densely Connected Convolutional Neural Networks for Staging Osteoarthritis Severity from Plain Radiographs. <i>Journal of Digital Imaging</i> , 2019, 32, 471-477.	2.9	106
26	Simultaneous acquisition of T_1 and T_2 quantification in knee cartilage: Repeatability and diurnal variation. <i>Journal of Magnetic Resonance Imaging</i> , 2014, 39, 1287-1293.	3.4	105
27	In vivo relationship between marrow T_2^* and trabecular bone density determined with a chemical shift-selective asymmetric spin-echo sequence. <i>Journal of Magnetic Resonance Imaging</i> , 1992, 2, 209-219.	3.4	104
28	A Local Adaptive Threshold Strategy for High Resolution Peripheral Quantitative Computed Tomography of Trabecular Bone. <i>Annals of Biomedical Engineering</i> , 2007, 35, 1678-1686.	2.5	104
29	Magnetic Resonance Imaging of Trabecular Bone Structure. <i>Topics in Magnetic Resonance Imaging</i> , 2002, 13, 323-334.	1.2	101
30	Quantitative MRI of articular cartilage and its clinical applications. <i>Journal of Magnetic Resonance Imaging</i> , 2013, 38, 991-1008.	3.4	98
31	Multicenter precision of cortical and trabecular bone quality measures assessed by high-resolution peripheral quantitative computed tomography. <i>Journal of Bone and Mineral Research</i> , 2013, 28, 524-536.	2.8	98
32	Scoring hip osteoarthritis with MRI (SHOMRI): A whole joint osteoarthritis evaluation system. <i>Journal of Magnetic Resonance Imaging</i> , 2015, 41, 1549-1557.	3.4	98
33	3D convolutional neural networks for detection and severity staging of meniscus and PFJ cartilage morphological degenerative changes in osteoarthritis and anterior cruciate ligament subjects. <i>Journal of Magnetic Resonance Imaging</i> , 2019, 49, 400-410.	3.4	98
34	Fractal analysis of radiographs: Assessment of trabecular bone structure and prediction of elastic modulus and strength. <i>Medical Physics</i> , 1999, 26, 1330-1340.	3.0	97
35	The effect of voxel size on high-resolution peripheral computed tomography measurements of trabecular and cortical bone microstructure. <i>Medical Physics</i> , 2012, 39, 1893-1903.	3.0	96
36	Quantitative MR relaxometry study of muscle composition and function in duchenne muscular dystrophy. <i>Journal of Magnetic Resonance Imaging</i> , 1994, 4, 59-64.	3.4	94

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37	A comparative study at 3 T of sequence dependence of T2 quantitation in the knee. Magnetic Resonance Imaging, 2008, 26, 1215-1220.	1.8	94
38	The Acute Effect of Running on Knee Articular Cartilage and Meniscus Magnetic Resonance Relaxation Times in Young Healthy Adults. American Journal of Sports Medicine, 2012, 40, 2134-2141.	4.2	94
39	Quantitative assessment of bone marrow edema-like lesion and overlying cartilage in knees with osteoarthritis and anterior cruciate ligament tear using MR imaging and spectroscopic imaging at 3 Tesla. Journal of Magnetic Resonance Imaging, 2008, 28, 453-461.	3.4	93
40	Trabecular Bone Mineral and Calculated Structure of Human Bone Specimens Scanned by Peripheral Quantitative Computed Tomography: Relation to Biomechanical Properties. Journal of Bone and Mineral Research, 1998, 13, 1783-1790.	2.8	90
41	Quantitative characterization of subject motion in HR-pQCT images of the distal radius and tibia. Bone, 2011, 48, 1291-1297.	2.9	88
42	Fractal geometry and vertebral compression fractures. Journal of Bone and Mineral Research, 1994, 9, 1797-1802.	2.8	83
43	Fully automatic analysis of the knee articular cartilage T1 ρ relaxation time using voxel-based relaxometry. Journal of Magnetic Resonance Imaging, 2016, 43, 970-980.	3.4	80
44	Deep Learning Predicts Total Knee Replacement from Magnetic Resonance Images. Scientific Reports, 2020, 10, 6371.	3.3	73
45	Automatic Hip Fracture Identification and Functional Subclassification with Deep Learning. Radiology: Artificial Intelligence, 2020, 2, e190023.	5.8	72
46	Spatial analysis of magnetic resonance and relaxation times improves classification between subjects with and without osteoarthritis. Medical Physics, 2009, 36, 4059-4067.	3.0	71
47	Comparison of T1 ρ relaxation times between ACL-reconstructed knees and contralateral uninjured knees. Knee Surgery, Sports Traumatology, Arthroscopy, 2014, 22, 298-307.	4.2	70
48	Microarchitecture and Peripheral BMD are Impaired in Postmenopausal White Women With Fracture Independently of Total Hip T-Score: An International Multicenter Study. Journal of Bone and Mineral Research, 2016, 31, 1158-1166.	2.8	69
49	Regional variations of gender-specific and age-related differences in trabecular bone structure of the distal radius and tibia. Bone, 2010, 46, 1652-1660.	2.9	66
50	Magnetic Resonance Imaging of 3-Dimensional In Vivo Tibiofemoral Kinematics in Anterior Cruciate Ligament-Reconstructed Knees. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2009, 25, 760-766.	2.7	62
51	Lactic Acid and Proteoglycans as Metabolic Markers for Discogenic Back Pain. Spine, 2008, 33, 312-317.	2.0	60
52	Quantitative In Vivo HR-pQCT Imaging of 3D Wrist and Metacarpophalangeal Joint Space Width in Rheumatoid Arthritis. Annals of Biomedical Engineering, 2013, 41, 2553-2564.	2.5	60
53	In vivo bone and cartilage MRI using fully-balanced steady-state free-precession at 7 tesla. Magnetic Resonance in Medicine, 2007, 58, 1294-1298.	3.0	59
54	In Vivo T1 ρ -Quantitative Assessment of Knee Cartilage After Anterior Cruciate Ligament Injury Using 3 Tesla Magnetic Resonance Imaging. Investigative Radiology, 2008, 43, 782-788.	6.2	59

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55	Segmentation of joint and musculoskeletal tissue in the study of arthritis. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2016, 29, 207-221.	2.0	59
56	In Vivo Intervertebral Disc Characterization Using Magnetic Resonance Spectroscopy and T1 ρ Imaging. <i>Spine</i> , 2012, 37, 214-221.	2.0	58
57	Differences in the Association of Hip Cartilage Lesions and Cam β Type Femoroacetabular Impingement With Movement Patterns: A Preliminary Study. <i>PM and R</i> , 2014, 6, 681-689.	1.6	56
58	New techniques for cartilage magnetic resonance imaging relaxation time analysis: Texture analysis of flattened cartilage and localized intra β and inter β subject comparisons. <i>Magnetic Resonance in Medicine</i> , 2008, 59, 1472-1477.	3.0	52
59	Longitudinal analysis of MRI T_2 knee cartilage laminar organization in a subset of patients from the osteoarthritis initiative: A texture approach. <i>Magnetic Resonance in Medicine</i> , 2011, 65, 1184-1194.	3.0	51
60	Age- and gender-related differences in cortical geometry and microstructure: Improved sensitivity by regional analysis. <i>Bone</i> , 2013, 52, 623-631.	2.9	51
61	Loaded versus unloaded magnetic resonance imaging (MRI) of the knee: Effect on meniscus extrusion in healthy volunteers and patients with osteoarthritis. <i>European Journal of Radiology Open</i> , 2016, 3, 100-107.	1.6	51
62	Regional variations in MR relaxation of hip joint cartilage in subjects with and without femoralacetabular impingement. <i>Magnetic Resonance Imaging</i> , 2013, 31, 1129-1136.	1.8	50
63	Higher Knee Flexion Moment During the Second Half of the Stance Phase of Gait Is Associated With the Progression of Osteoarthritis of the Patellofemoral Joint on Magnetic Resonance Imaging. <i>Journal of Orthopaedic and Sports Physical Therapy</i> , 2015, 45, 656-664.	3.5	50
64	Imaging Bone β Cartilage Interactions in Osteoarthritis Using [18 F]-NaF PET-MRI. <i>Molecular Imaging</i> , 2016, 15, 153601211668359.	1.4	50
65	A feasibility study of in vivo T1 ρ imaging of the intervertebral disc. <i>Magnetic Resonance Imaging</i> , 2006, 24, 1001-1007.	1.8	47
66	Automatic Deep Learning β assisted Detection and Grading of Abnormalities in Knee MRI Studies. <i>Radiology: Artificial Intelligence</i> , 2021, 3, e200165.	5.8	46
67	The International Workshop on Osteoarthritis Imaging Knee MRI Segmentation Challenge: A Multi-Institute Evaluation and Analysis Framework on a Standardized Dataset. <i>Radiology: Artificial Intelligence</i> , 2021, 3, e200078.	5.8	46
68	Characterization of intervertebral disc degeneration by high-resolution magic angle spinning (HR-MAS) spectroscopy. <i>Magnetic Resonance in Medicine</i> , 2005, 53, 519-527.	3.0	44
69	T1 ρ MRI relaxation in knee OA subjects with varying sizes of cartilage lesions. <i>Knee</i> , 2013, 20, 113-119.	1.6	44
70	In vivo assessment of trabecular bone structure using fractal analysis of distal radius radiographs. <i>Medical Physics</i> , 2000, 27, 2594-2599.	3.0	42
71	Morphometric texture analysis of spinal trabecular bone structure assessed using orthogonal radiographic projections. <i>Medical Physics</i> , 1998, 25, 2037-2045.	3.0	41
72	An eight-channel, nonoverlapping phased array coil with capacitive decoupling for parallel MRI at 3 T. <i>Concepts in Magnetic Resonance Part B</i> , 2007, 31B, 37-43.	0.7	40

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73	MRI and biomechanics multidimensional data analysis reveals R^2 as an early predictor of cartilage lesion progression in knee osteoarthritis. Journal of Magnetic Resonance Imaging, 2018, 47, 78-90.	3.4	40
74	T_1 and T_2 quantitative magnetic resonance imaging analysis of cartilage regeneration following microfracture and mosaicplasty cartilage resurfacing procedures. Journal of Magnetic Resonance Imaging, 2010, 32, 914-923.	3.4	39
75	Micrometer-sized iron oxide particle labeling of mesenchymal stem cells for magnetic resonance imaging-based monitoring of cartilage tissue engineering. Magnetic Resonance Imaging, 2011, 29, 40-49.	1.8	39
76	Anatomic correlates of reduced hip extension during walking in individuals with mild to moderate radiographic hip osteoarthritis. Journal of Orthopaedic Research, 2015, 33, 527-534.	2.3	39
77	Spatial distribution of intracortical porosity varies across age and sex. Bone, 2015, 75, 88-95.	2.9	38
78	Rapid Knee MRI Acquisition and Analysis Techniques for Imaging Osteoarthritis. Journal of Magnetic Resonance Imaging, 2020, 52, 1321-1339.	3.4	38
79	Kartogenin treatment prevented joint degeneration in a rodent model of osteoarthritis: A pilot study. Journal of Orthopaedic Research, 2016, 34, 1780-1789.	2.3	37
80	Joint Loading in the Sagittal Plane During Gait Is Associated With Hip Joint Abnormalities in Patients With Femoroacetabular Impingement. American Journal of Sports Medicine, 2017, 45, 810-818.	4.2	37
81	T_1 and T_2 -based characterization of regional variations in intervertebral discs to detect early degenerative changes. Journal of Orthopaedic Research, 2016, 34, 1373-1381.	2.3	36
82	Trabecular Structure Assessment in Lumbar Vertebrae Specimens Using Quantitative Magnetic Resonance Imaging and Relationship with Mechanical Competence. Journal of Bone and Mineral Research, 2001, 16, 1511-1519.	2.8	35
83	Longitudinal study using voxel-based relaxometry: Association between cartilage T_1 and T_2 and patient reported outcome changes in hip osteoarthritis. Journal of Magnetic Resonance Imaging, 2017, 45, 1523-1533.	3.4	35
84	Assessment of intervertebral disc degeneration with magnetic resonance single-voxel spectroscopy. Magnetic Resonance in Medicine, 2009, 62, 1140-1146.	3.0	34
85	Learning osteoarthritis imaging biomarkers from bone surface spherical encoding. Magnetic Resonance in Medicine, 2020, 84, 2190-2203.	3.0	34
86	Diffraction enhanced imaging of articular cartilage and comparison with micro-computed tomography of the underlying bone structure. European Radiology, 2004, 14, 1440-8.	4.5	33
87	Variation in the Thickness of Knee Cartilage. The Use of a Novel Machine Learning Algorithm for Cartilage Segmentation of Magnetic Resonance Images. Journal of Arthroplasty, 2019, 34, 2210-2215.	3.1	32
88	Deep Learning for Hierarchical Severity Staging of Anterior Cruciate Ligament Injuries from MRI. Radiology: Artificial Intelligence, 2020, 2, e190207.	5.8	32
89	Correlation of HR-MAS Spectroscopy Derived Metabolite Concentrations With Collagen and Proteoglycan Levels and Thompson Grade in the Degenerative Disc. Spine, 2005, 30, 2683-2688.	2.0	31
90	Magnetic resonance imaging for osteoporosis. Skeletal Radiology, 2008, 37, 95-97.	2.0	30

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91	Individuals with isolated patellofemoral joint osteoarthritis exhibit higher mechanical loading at the knee during the second half of the stance phase. <i>Clinical Biomechanics</i> , 2015, 30, 383-390.	1.2	30
92	Improving bone strength prediction in human proximal femur specimens through geometrical characterization of trabecular bone microarchitecture and support vector regression. <i>Journal of Electronic Imaging</i> , 2014, 23, 013013.	0.9	28
93	Three-dimensional analysis of subchondral cysts in hip osteoarthritis: An ex vivo HR-pQCT study. <i>Bone</i> , 2014, 66, 140-145.	2.9	28
94	Baseline cartilage quality is associated with voxel-based T ₂ and T ₂ * following ACL reconstruction: A multicenter pilot study. <i>Journal of Orthopaedic Research</i> , 2017, 35, 688-698.	2.3	28
95	Femoroacetabular impingement and hip Osteoarthritis Cohort (FORCE): protocol for a prospective study. <i>Journal of Physiotherapy</i> , 2018, 64, 55.	1.7	27
96	Quantitative imaging of anterior cruciate ligament (ACL) graft demonstrates longitudinal compositional changes and relationships with clinical outcomes at 2 years after ACL reconstruction. <i>Journal of Orthopaedic Research</i> , 2020, 38, 1289-1295.	2.3	27
97	Atlas-based knee cartilage assessment. <i>Magnetic Resonance in Medicine</i> , 2011, 66, 575-581.	3.0	26
98	Longitudinal assessment of MRI in hip osteoarthritis using SHOMRI and correlation with clinical progression. <i>Seminars in Arthritis and Rheumatism</i> , 2016, 45, 648-655.	3.4	26
99	Cyclops lesions detected by MRI are frequent findings after ACL surgical reconstruction but do not impact clinical outcome over 2 years. <i>European Radiology</i> , 2017, 27, 3499-3508.	4.5	25
100	Study of the interactions between proximal femur 3d bone shape, cartilage health, and biomechanics in patients with hip Osteoarthritis. <i>Journal of Orthopaedic Research</i> , 2018, 36, 330-341.	2.3	24
101	T ₂ analysis of the entire osteoarthritis initiative dataset. <i>Journal of Orthopaedic Research</i> , 2021, 39, 74-85.	2.3	23
102	Studying osteoarthritis with artificial intelligence applied to magnetic resonance imaging. <i>Nature Reviews Rheumatology</i> , 2022, 18, 112-121.	8.0	23
103	Hip joint muscle forces during gait in patients with femoroacetabular impingement syndrome are associated with patient reported outcomes and cartilage composition. <i>Journal of Biomechanics</i> , 2019, 84, 138-146.	2.1	22
104	Principal Component Analysis of Simultaneous PET-MRI Reveals Patterns of Bone-Cartilage Interactions in Osteoarthritis. <i>Journal of Magnetic Resonance Imaging</i> , 2020, 52, 1462-1474.	3.4	22
105	Diagnostic Tools and Imaging Methods in Intervertebral Disk Degeneration. <i>Orthopedic Clinics of North America</i> , 2011, 42, 501-511.	1.2	21
106	Improved differentiation between knees with cartilage lesions and controls using 7T relaxation time mapping. <i>Journal of Orthopaedic Translation</i> , 2015, 3, 197-204.	3.9	21
107	Correlation of Patient Symptoms With Labral and Articular Cartilage Damage in Femoroacetabular Impingement. <i>Orthopaedic Journal of Sports Medicine</i> , 2018, 6, 232596711877878.	1.7	21
108	Validation of scoring hip osteoarthritis with MRI (SHOMRI) scores using hip arthroscopy as a standard of reference. <i>European Radiology</i> , 2019, 29, 578-587.	4.5	21

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109	Deep learning for large scale MRI-based morphological phenotyping of osteoarthritis. Scientific Reports, 2021, 11, 10915.	3.3	21
110	¹⁸ F-sodium fluoride PET-CT hybrid imaging of the lumbar facet joints: Tracer uptake and degree of correlation to CT-graded arthropathy. World Journal of Nuclear Medicine, 2016, 15, 85-90.	0.5	20
111	Decay characteristics of bone marrow in the presence of a trabecular bone network: In vitro and in vivo studies showing a departure from monoexponential behavior. Magnetic Resonance in Medicine, 1996, 35, 921-927.	3.0	19
112	Zonal differences in meniscus MR relaxation times in response to in vivo static loading in knee osteoarthritis. Journal of Orthopaedic Research, 2016, 34, 249-261.	2.3	19
113	Sagittal plane walking patterns are related to MRI changes over 18 months in people with and without mild to moderate hip osteoarthritis. Journal of Orthopaedic Research, 2018, 36, 1472-1477.	2.3	19
114	Acetabular cartilage defects cause altered hip and knee joint coordination variability during gait. Clinical Biomechanics, 2015, 30, 1202-1209.	1.2	18
115	Abnormal Joint Moment Distributions and Functional Performance During Sit to Stand in Femoroacetabular Impingement Patients. PM and R, 2017, 9, 563-570.	1.6	18
116	Quantification of bone marrow water and lipid composition in anterior cruciate ligament-injured and osteoarthritic knees using three-dimensional magnetic resonance spectroscopic imaging. Magnetic Resonance Imaging, 2016, 34, 632-637.	1.8	17
117	Composite metric $(1/T_2 - T_2^*)/T_2$ as a potential MR imaging biomarker associated with changes in pain after ACL reconstruction: A six-month follow-up. Journal of Orthopaedic Research, 2017, 35, 718-729.	2.3	17
118	[¹⁸ F] Sodium Fluoride PET/MR Imaging for Bone-Cartilage Interactions in Hip Osteoarthritis: A Feasibility Study. Journal of Orthopaedic Research, 2019, 37, 2671-2680.	2.3	17
119	iPhone Sensors in Tracking Outcome Variables of the 30-Second Chair Stand Test and Stair Climb Test to Evaluate Disability: Cross-Sectional Pilot Study. JMIR MHealth and UHealth, 2017, 5, e166.	3.7	17
120	Effects of Surgical Factors on Cartilage Can Be Detected Using Quantitative Magnetic Resonance Imaging After Anterior Cruciate Ligament Reconstruction. American Journal of Sports Medicine, 2017, 45, 1075-1084.	4.2	16
121	Lumbar intervertebral disc characterization through quantitative MRI analysis: An automatic voxel-based relaxometry approach. Magnetic Resonance in Medicine, 2020, 84, 1376-1390.	3.0	16
122	Towards understanding mechanistic subgroups of osteoarthritis: 8-year cartilage thickness trajectory analysis. Journal of Orthopaedic Research, 2021, 39, 1305-1317.	2.3	16
123	A novel mr-based method for detection of cartilage delamination in femoroacetabular impingement patients. Journal of Orthopaedic Research, 2018, 36, 971-978.	2.3	15
124	Short term outcomes of hip arthroscopy on hip joint mechanics and cartilage health in patients with femoroacetabular impingement syndrome. Clinical Biomechanics, 2020, 71, 214-220.	1.2	14
125	Computer-Aided Detection (AI) Reduces Interreader Variability in Grading Hip Abnormalities With MRI. Journal of Magnetic Resonance Imaging, 2020, 52, 1163-1172.	3.4	14
126	Principal component analysis-T1 ρ -voxel based relaxometry of the articular cartilage: a comparison of biochemical patterns in osteoarthritis and anterior cruciate ligament subjects. Quantitative Imaging in Medicine and Surgery, 2016, 6, 623-633.	2.0	13

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127	[¹⁸ F]-Sodium Fluoride PET MR-Based Localization and Quantification of Bone Turnover as a Biomarker for Facet Joint-Induced Disability. American Journal of Neuroradiology, 2017, 38, 2028-2031.	2.4	13
128	Fractal Based Image Analysis of Human Trabecular Bone using the Box Counting Algorithm. Fractals, 1998, 06, 275-283.	3.7	12
129	Positive contrast from cells labeled with iron oxide nanoparticles: Quantitation of imaging data. Magnetic Resonance in Medicine, 2017, 78, 1900-1910.	3.0	12
130	Local associations between knee cartilage T1 and T2 relaxation times and patellofemoral joint stress during walking: A voxel-based relaxometry analysis. Knee, 2018, 25, 406-416.	1.6	12
131	Using multidimensional topological data analysis to identify traits of hip osteoarthritis. Journal of Magnetic Resonance Imaging, 2018, 48, 1046-1058.	3.4	12
132	Accelerated Bone Loss in Older Men: Effects on Bone Microarchitecture and Strength. Journal of Bone and Mineral Research, 2018, 33, 1859-1869.	2.8	12
133	MR study of longitudinal variations in proximal femur 3D morphological shape and associations with cartilage health in hip osteoarthritis. Journal of Orthopaedic Research, 2019, 37, 161-170.	2.3	12
134	Longitudinal analysis of the contribution of 3D patella and trochlear bone shape on patellofemoral joint osteoarthritic features. Journal of Orthopaedic Research, 2021, 39, 506-515.	2.3	12
135	Changes in Hip Capsule Morphology after Arthroscopic Treatment for Femoroacetabular Impingement Syndrome with Periportal Capsulotomy are Correlated With Improvements in Patient-Reported Outcomes. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2022, 38, 394-403.	2.7	12
136	AI MSK clinical applications: cartilage and osteoarthritis. Skeletal Radiology, 2022, 51, 331-343.	2.0	12
137	FDA/Arthritis Foundation osteoarthritis drug development workshop recap: Assessment of long-term benefit. Seminars in Arthritis and Rheumatism, 2022, 56, 152070.	3.4	12
138	Postoperative MRI Findings and Associated Pain Changes After Arthroscopic Surgery for Femoroacetabular Impingement. American Journal of Roentgenology, 2020, 214, 177-184.	2.2	11
139	Cam morphology is associated with MRI-defined cartilage defects and labral tears: a case-control study of 237 young adult football players with and without hip and groin pain. BMJ Open Sport and Exercise Medicine, 2021, 7, e001199.	2.9	11
140	Quantitative magnetic resonance arthrography in patients with femoroacetabular impingement. Journal of Magnetic Resonance Imaging, 2016, 44, 1539-1545.	3.4	10
141	Patellar Malalignment Is Associated With Patellofemoral Lesions and Cartilage Relaxation Times After Hamstring Autograft Anterior Cruciate Ligament Reconstruction. American Journal of Sports Medicine, 2020, 48, 2242-2251.	4.2	10
142	Uncovering associations between data-driven learned qMRI biomarkers and chronic pain. Scientific Reports, 2021, 11, 21989.	3.3	10
143	Current technologies in the evaluation of bone architecture. Current Osteoporosis Reports, 2003, 1, 105-109.	3.6	9
144	Statistical Parametric Mapping of HR-pQCT Images: A Tool for Population-Based Local Comparisons of Micro-Scale Bone Features. Annals of Biomedical Engineering, 2017, 45, 949-962.	2.5	9

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145	Translation of morphological and functional musculoskeletal imaging. Journal of Orthopaedic Research, 2019, 37, 23-34.	2.3	9
146	Effects of the Competitive Season and Off-Season on Knee Articular Cartilage in Collegiate Basketball Players Using Quantitative MRI: A Multicenter Study. Journal of Magnetic Resonance Imaging, 2021, 54, 840-851.	3.4	9
147	Multiparametric MRI characterization of knee articular cartilage and subchondral bone shape in collegiate basketball players. Journal of Orthopaedic Research, 2021, 39, 1512-1522.	2.3	8
148	Correlation of hip capsule morphology with patient symptoms from femoroacetabular impingement. Journal of Orthopaedic Research, 2021, 39, 590-596.	2.3	8
149	Subject-specific biomechanical analysis to estimate locations susceptible to osteoarthritis: Finite element modeling and MRI follow-up of ACL reconstructed patients. Journal of Orthopaedic Research, 2022, 40, 1744-1755.	2.3	8
150	Bone microstructure in men assessed by HR-pQCT: Associations with risk factors and differences between men with normal, low, and osteoporosis-range areal BMD. Bone Reports, 2016, 5, 312-319.	0.4	7
151	Using the Scoring Hip Osteoarthritis with Magnetic Resonance Imaging (SHOMRI) system to assess intra-articular pathology in femoroacetabular impingement. Journal of Orthopaedic Research, 2018, 36, 3064-3070.	2.3	7
152	Association Between Gait Kinetics and Symptomatic Progression in Persons With Patellofemoral With/Without Concurrent Tibiofemoral Osteoarthritis. Journal of Orthopaedic Research, 2019, 37, 2593-2600.	2.3	7
153	Hyaluronan Increases RANKL Expression in Bone Marrow Stromal Cells Through CD44. Journal of Bone and Mineral Research, 2005, 20, 30-40.	2.8	7
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