Valentina Pedoia

List of Publications by Year
in descending order

76	2,128	201658	276858
papers	citations	27 h-index	41 g-index

76	76	76	2161
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Personalized Risk Model and Leveraging of Magnetic Resonance Imagingâ€“Based Structural Phenotypes and Clinical Factors to Predict Incidence of Radiographic Osteoarthritis. Arthritis Care and Research, 2023, 75, 501-508.	3.4	5
2	Magnetizationâ€prepared spoiled gradientâ€echo snapshot imaging for efficient measurement of R₂â€R_{1ï} in knee cartilage. Magnetic Resonance in Medicine, 2022, 87, 733-745.	3.0	5
3	Improving the noninvasive classification of glioma genetic subtype with deep learning and diffusion-weighted imaging. Neuro-Oncology, 2022, 24, 639-652.	1.2	22
4	AI MSK clinical applications: cartilage and osteoarthritis. Skeletal Radiology, 2022, 51, 331-343.	2.0	12
5	Studying osteoarthritis with artificial intelligence applied to magnetic resonance imaging. Nature Reviews Rheumatology, 2022, 18, 112-121.	8.0	23
6	Institutionâ€wide shape analysis of 3D spinal curvature and global alignment parameters. Journal of Orthopaedic Research, 2022, 40, 1896-1908.	2.3	3
7	Clinical language search algorithm from free-text: facilitating appropriate imaging. BMC Medical Imaging, 2022, 22, 18.	2.7	3
8	Using AI to Improve Radiographic Fracture Detection. Radiology, 2022, 302, 637-638.	7.3	2
9	Use of machine learning in osteoarthritis research: a systematic literature review. RMD Open, 2022, 8, e001998.	3.8	23
10	Posterior Tibial Slope, Notch Width, Condylar Morphology, Trochlear Inclination, and Tibiofemoral Mismatch Predict Outcomes Following Anterior Cruciate Ligament Reconstruction. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2022, 38, 1689-1704.e1.	2.7	5
11	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
12	T₂ analysis of the entire osteoarthritis initiative dataset. Journal of Orthopaedic Research, 2021, 39, 74-85.	2.3	23
13	Multivariate functional principal component analysis identifies waveform features of gait biomechanics related to earlyâ€toâ€moderate hip osteoarthritis. Journal of Orthopaedic Research, 2021, 39, 1722-1731.	2.3	2
14	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
15	Towards understanding mechanistic subgroups of osteoarthritis: 8â€year cartilage thickness trajectory analysis. Journal of Orthopaedic Research, 2021, 39, 1305-1317.	2.3	16
16	Automatic hip abductor muscle fat fraction estimation and association with early OA cartilage degeneration biomarkers. Journal of Orthopaedic Research, 2021, 39, 2376-2387.	2.3	3
17	Weight Cycling and Knee Joint Degeneration in Individuals with Overweight or Obesity: Fourâ€Year Magnetic Resonance Imaging Data from the Osteoarthritis Initiative. Obesity, 2021, 29, 909-918.	3.0	4
18	Automatic Deep Learningâ€“assisted Detection and Grading of Abnormalities in Knee MRI Studies. Radiology: Artificial Intelligence, 2021, 3, e200165.	5.8	46

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19	The International Workshop on Osteoarthritis Imaging Knee MRI Segmentation Challenge: A Multi-Institute Evaluation and Analysis Framework on a Standardized Dataset. Radiology: Artificial Intelligence, 2021, 3, e200078.	5.8	46
20	Deep learning for large scale MRI-based morphological phenotyping of osteoarthritis. Scientific Reports, 2021, 11, 10915.	3.3	21
21	Longitudinal Changes of Patellar Alignment Before and After Anterior Cruciate Ligament Reconstruction With Hamstring Autograft. American Journal of Sports Medicine, 2021, 49, 2908-2915.	4.2	4
22	Augmenting Osteoporosis Imaging with Machine Learning. Current Osteoporosis Reports, 2021, 19, 699-709.	3.6	1
23	Extracting Voxelâ€Based Cartilage Relaxometry Features in Hip Osteoarthritis Subjects Using Principal Component Analysis. Journal of Magnetic Resonance Imaging, 2020, 51, 1708-1719.	3.4	2
24	Sixâ€month postâ€surgical elevations in cartilage T1rho relaxation times are associated with functional performance 2 years after ACL reconstruction. Journal of Orthopaedic Research, 2020, 38, 1132-1140.	2.3	12
25	Rapid Knee MRI Acquisition and Analysis Techniques for Imaging Osteoarthritis. Journal of Magnetic Resonance Imaging, 2020, 52, 1321-1339.	3.4	38
26	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
27	Automatic Hip Fracture Identification and Functional Subclassification with Deep Learning. Radiology: Artificial Intelligence, 2020, 2, e190023.	5.8	72
28	Deep Learning for Hierarchical Severity Staging of Anterior Cruciate Ligament Injuries from MRI. Radiology: Artificial Intelligence, 2020, 2, e190207.	5.8	32
29	Altered tibiofemoral position following ACL reconstruction is associated with cartilage matrix changes: A voxelâ€based relaxometry analysis. Journal of Orthopaedic Research, 2020, 38, 2454-2463.	2.3	11
30	Principal Component Analysis of Simultaneous PETâ€MRI Reveals Patterns of Boneâ€“Cartilage Interactions in Osteoarthritis. Journal of Magnetic Resonance Imaging, 2020, 52, 1462-1474.	3.4	22
31	Lumbar intervertebral disc characterization through quantitative MRI analysis: An automatic voxelâ€based relaxometry approach. Magnetic Resonance in Medicine, 2020, 84, 1376-1390.	3.0	16
32	Development and Validation of a Multitask Deep Learning Model for Severity Grading of Hip Osteoarthritis Features on Radiographs. Radiology, 2020, 295, 136-145.	7.3	57
33	Learning osteoarthritis imaging biomarkers from bone surface spherical encoding. Magnetic Resonance in Medicine, 2020, 84, 2190-2203.	3.0	34
34	Computerâ€Aided Detection <scp>AI</scp> Reduces <scp>Interreader</scp> Variability in Grading Hip Abnormalities With <scp>MRI</scp>. Journal of Magnetic Resonance Imaging, 2020, 52, 1163-1172.	3.4	14
35	Deep Learning Predicts Total Knee Replacement from Magnetic Resonance Images. Scientific Reports, 2020, 10, 6371.	3.3	73
36	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

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37	Anatomic shoulder parameters and their relationship to the presence of degenerative rotator cuff tears and glenohumeral osteoarthritis: a systematic review and meta-analysis. Journal of Shoulder and Elbow Surgery, 2019, 28, 2457-2466.	2.6	35
38	[¹⁸F]â€Sodium Fluoride PET/MR Imaging for Boneâ€“Cartilage Interactions in Hip Osteoarthritis: A Feasibility Study. Journal of Orthopaedic Research, 2019, 37, 2671-2680.	2.3	17
39	Structural Changes over a Short Period Are Associated with Functional Assessments in Rheumatoid Arthritis. Journal of Rheumatology, 2019, 46, 676-684.	2.0	12
40	THU0067â€…THREE-MONTH RADIOLOGICAL CHANGES IN WRIST JOINT MEASURED BY MRI AND HR-PQCT CAN PREDICT 12-MONTH CHANGES IN EROSION AND FUNCTIONAL OUTCOMES AFTER MTX AND ANTI-TNF TREATMENT IN PATIENTS WITH RHEUMATOID ARTHRITIS: A MULTI-MODALITY IMAGING STUDY. , 2019, , .		0
41	Hip joint muscle forces during gait in patients with femoroacetabular impingement syndrome are associated with patient reported outcomes and cartilage composition. Journal of Biomechanics, 2019, 84, 138-146.	2.1	22
42	Abnormal Biomechanics at 6ÂMonths Are Associated With Cartilage Degeneration at 3ÂYears After Anterior Cruciate Ligament Reconstruction. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2019, 35, 511-520.	2.7	46
43	An Abnormal Tibial Position Is Associated With Alterations in the Meniscal Matrix: A 3-Year Longitudinal Study After Anterior Cruciate Ligament Reconstruction. Orthopaedic Journal of Sports Medicine, 2019, 7, 232596711882005.	1.7	4
44	3D convolutional neural networks for detection and severity staging of meniscus and PFJ cartilage morphological degenerative changes in osteoarthritis and anterior cruciate ligament subjects. Journal of Magnetic Resonance Imaging, 2019, 49, 400-410.	3.4	98
45	Computation and management of weighted activation vectors in support to fMRI analysis of clinical subjects. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2019, 7, 563-582.	1.9	1
46	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
47	Translation of morphological and functional musculoskeletal imaging. Journal of Orthopaedic Research, 2019, 37, 23-34.	2.3	9
48	Study of the interactions between proximal femur 3d bone shape, cartilage health, and biomechanics in patients with hip Osteoarthritis. Journal of Orthopaedic Research, 2018, 36, 330-341.	2.3	24
49	A novel mrâ€based method for detection of cartilage delamination in femoroacetabular impingement patients. Journal of Orthopaedic Research, 2018, 36, 971-978.	2.3	15
50	Local associations between knee cartilage T 1Ï•and T 2 relaxation times and patellofemoral joint stress during walking: A voxel-based relaxometry analysis. Knee, 2018, 25, 406-416.	1.6	12
51	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
52	MRI and biomechanics multidimensional data analysis reveals R₂â€R_{1Ï•} as an early predictor of cartilage lesion progression in knee osteoarthritis. Journal of Magnetic Resonance Imaging, 2018, 47, 78-90.	3.4	40
53	Meningioma and peritumoral edema segmentation of preoperative MRI brain scans. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2018, 6, 362-370.	1.9	3
54	Frontal Plane Knee Mechanics and Early Cartilage Degeneration in People With Anterior Cruciate Ligament Reconstruction: A Longitudinal Study. American Journal of Sports Medicine, 2018, 46, 378-387.	4.2	47

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55	Using multidimensional topological data analysis to identify traits of hip osteoarthritis. Journal of Magnetic Resonance Imaging, 2018, 48, 1046-1058.	3.4	12
56	Baseline cartilage quality is associated with voxelâ€based T_{1Ï} and T₂ following ACL reconstruction: A multicenter pilot study. Journal of Orthopaedic Research, 2017, 35, 688-698.	2.3	28
57	Longitudinal study using voxel-based relaxometry: Association between cartilage T1Ïand T2 and patient reported outcome changes in hip osteoarthritis. Journal of Magnetic Resonance Imaging, 2017, 45, 1523-1533.	3.4	35
58	Cyclops lesions are associated with altered gait patterns and medial knee joint cartilage degeneration at 1 year after ACLâ€reconstruction. Journal of Orthopaedic Research, 2017, 35, 2275-2281.	2.3	13
59	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
60	Variations in Knee Kinematics After ACL Injury and After Reconstruction Are Correlated With Bone Shape Differences. Clinical Orthopaedics and Related Research, 2017, 475, 2427-2435.	1.5	51
61	Gait Characteristics Associated With a Greater Increase in Medial Knee Cartilage T_{1Ï} and T₂ Relaxation Times in Patients Undergoing Anterior Cruciate Ligament Reconstruction. American Journal of Sports Medicine, 2017, 45, 3262-3271.	4.2	59
62	Composite metric R₂â€‰â^'â€‰R_{1Ï} (1/T₂â€‰â^'â€‰1/T_{1Ï}) as a potential MR imaging biomarker associated with changes in pain after ACL reconstruction: A sixâ€month followâ€up. Journal of Orthopaedic Research, 2017, 35, 718-729.	2.3	17
63	Analysis of the articular cartilage T_{1Ï} and T₂ relaxation times changes after ACL reconstruction in injured and contralateral knees and relationships with bone shape. Journal of Orthopaedic Research, 2017, 35, 707-717.	2.3	56
64	Evaluating radiocarpal cartilage matrix changes 3-months after anti-TNF treatment for rheumatoid arthritis using MR T1Ïimaging. Journal of Magnetic Resonance Imaging, 2017, 45, 1514-1522.	3.4	9
65	Bone marrow edema-like lesions (BMELs) are associated with higher T1Ïand T2 values of cartilage in anterior cruciate ligament (ACL)-reconstructed knees: a longitudinal study. Quantitative Imaging in Medicine and Surgery, 2016, 6, 661-670.	2.0	24
66	Principal component analysis-T1Ïvoxel 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
67	Fully automatic analysis of the knee articular cartilageT1Ïrelaxation time using voxel-based relaxometry. Journal of Magnetic Resonance Imaging, 2016, 43, 970-980.	3.4	80
68	Accelerating t_{1Ï} cartilage imaging using compressed sensing with iterative locally adapted support detection and JSENSE. Magnetic Resonance in Medicine, 2016, 75, 1617-1629.	3.0	37
69	Persistent Biomechanical Alterations After ACL Reconstruction Are Associated With Early Cartilage Matrix Changes Detected by Quantitative MR. Orthopaedic Journal of Sports Medicine, 2016, 4, 232596711664442.	1.7	31
70	Imaging Boneâ€“Cartilage Interactions in Osteoarthritis Using [¹⁸F]-NaF PET-MRI. Molecular Imaging, 2016, 15, 153601211668359.	1.4	50
71	T_{1Ï} and T₂â€based characterization of regional variations in intervertebral discs to detect early degenerative changes. Journal of Orthopaedic Research, 2016, 34, 1373-1381.	2.3	36
72	Highâ€temporospatialâ€resolution dynamic contrastâ€enhanced (DCE) wrist MRI with variableâ€density pseudoâ€random circular Cartesian undersampling (CIRCUS) acquisition: evaluation of perfusion in rheumatoid arthritis patients. NMR in Biomedicine, 2016, 29, 15-23.	2.8	16

#	ARTICLE	IF	CITATIONS
73	Segmentation of joint and musculoskeletal tissue in the study of arthritis. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2016, 29, 207-221.	2.0	59
74	MR T1Ï•and T2 of meniscus after acute anterior cruciate ligament injuries. Osteoarthritis and Cartilage, 2016, 24, 631-639.	1.3	30
75	Reproducibility measurements of three methods for calculating in vivo MR-based knee kinematics. Journal of Magnetic Resonance Imaging, 2015, 42, 533-538.	3.4	13
76	Abnormal tibial position is correlated to early degenerative changes one year following ACL reconstruction. Journal of Orthopaedic Research, 2015, 33, 1079-1086.	2.3	41