

# Matthew F Koff

## List of Publications by Year in descending order

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76  
papers

1,801  
citations

236925

25  
h-index

302126

39  
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77  
all docs

77  
docs citations

77  
times ranked

1702  
citing authors

#	ARTICLE	IF	CITATIONS
1	MRI After Arthroplasty: Comparison of MAVRIC and Conventional Fast Spin-Echo Techniques. American Journal of Roentgenology, 2011, 197, W405-W411.	2.2	170
2	Technical Developments: Zero Echo Time Imaging of the Shoulder: Enhanced Osseous Detail by Using MR Imaging. Radiology, 2018, 286, 960-966.	7.3	103
3	Sequential wear patterns of the articular cartilage of the thumb carpometacarpal joint in osteoarthritis. Journal of Hand Surgery, 2003, 28, 597-604.	1.6	78
4	Cartilage T1 $\rho$ and T2 relaxation times: longitudinal reproducibility and variations using different coils, MR systems and sites. Osteoarthritis and Cartilage, 2015, 23, 2214-2223.	1.3	78
5	Magnetic resonance imaging of the postoperative hip. Journal of Magnetic Resonance Imaging, 2012, 35, 1013-1025.	3.4	74
6	Magnetic Resonance Imaging Findings in Symptomatic Versus Asymptomatic Subjects Following Metal-on-Metal Hip Resurfacing Arthroplasty. Journal of Bone and Joint Surgery - Series A, 2013, 95, 895-902.	3.0	65
7	MRI Findings in Painful Metal-on-Metal Hip Arthroplasty. American Journal of Roentgenology, 2012, 199, 884-893.	2.2	63
8	Diagnostic Accuracy of Zero-Echo Time MRI for the Evaluation of Cervical Neural Foraminal Stenosis. Spine, 2018, 43, 928-933.	2.0	54
9	Effect of Local Alignment on Compartmental Patterns of Knee Osteoarthritis. Journal of Bone and Joint Surgery - Series A, 2008, 90, 1961-1969.	3.0	50
10	Evaluation of Osseous Morphology of the Hip Using Zero Echo Time Magnetic Resonance Imaging. American Journal of Sports Medicine, 2019, 47, 3460-3468.	4.2	49
11	Quantifying image distortion of orthopedic materials in magnetic resonance imaging. Journal of Magnetic Resonance Imaging, 2013, 38, 610-618.	3.4	47
12	Morphologic and quantitative magnetic resonance imaging of knee articular cartilage for the assessment of post-traumatic osteoarthritis. Journal of Orthopaedic Research, 2017, 35, 412-423.	2.3	47
13	MRI of THA Correlates With Implant Wear and Tissue Reactions: A Cross-sectional Study. Clinical Orthopaedics and Related Research, 2019, 477, 159-174.	1.5	37
14	Imaging near orthopedic hardware. Journal of Magnetic Resonance Imaging, 2017, 46, 24-39.	3.4	36
15	Simulated extension osteotomy of the thumb metacarpal reduces carpometacarpal joint laxity in lateral pinch. Journal of Hand Surgery, 2003, 28, 733-738.	1.6	35
16	The biomechanical analysis of a tendon fixation device for flexor tendon repair. Journal of Hand Surgery, 2005, 30, 237-245.	1.6	34
17	Bias of cartilage T2 values related to method of calculation. Magnetic Resonance Imaging, 2008, 26, 1236-1243.	1.8	34
18	Integrin $\alpha$ 21-Selected Mesenchymal Stem Cells Mitigate the Progression of Osteoarthritis in an Equine Talar Impact Model. American Journal of Sports Medicine, 2020, 48, 612-623.	4.2	33

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19	An In Vitro Analysis of Ligament Reconstruction or Extension Osteotomy on Trapeziometacarpal Joint Stability and Contact Area. <i>Journal of Hand Surgery</i> , 2006, 31, 429-439.	1.6	32
20	MR Imaging of Adverse Local Tissue Reactions around Rejuvenate Modular Dual-Taper Stems. <i>Radiology</i> , 2015, 277, 142-150.	7.3	32
21	Long-term Evaluation of Meniscal Tissue Formation in 3-dimensionalâ€“Printed Scaffolds With Sequential Release of Connective Tissue Growth Factor and TGF- $\beta$ 3 in an Ovine Model. <i>American Journal of Sports Medicine</i> , 2019, 47, 2596-2607.	4.2	32
22	Effects of Ankle-Foot Orthoses on Ankle and Foot Kinematics in Patient With Ankle Osteoarthritis. <i>Archives of Physical Medicine and Rehabilitation</i> , 2006, 87, 710-716.	0.9	30
23	High-Resolution Methods for Diagnosing Cartilage Damage <i>in Vivo</i> . <i>Cartilage</i> , 2016, 7, 39-51.	2.7	30
24	Three-dimensional Magnetic Resonance Imaging of Physeal Injury. <i>Journal of Pediatric Orthopaedics</i> , 2014, 34, 239-245.	1.2	28
25	An MRI-compatible loading device to assess knee joint cartilage deformation: Effect of preloading and inter-test repeatability. <i>Journal of Biomechanics</i> , 2015, 48, 2934-2940.	2.1	28
26	A method for in-vivo kinematic analysis of the forearm. <i>Journal of Biomechanics</i> , 2008, 41, 56-62.	2.1	26
27	Clinical Implementation of MRI of Joint Arthroplasty. <i>American Journal of Roentgenology</i> , 2014, 203, 154-161.	2.2	25
28	Joint Kinematics After Thumb Carpometacarpal Joint Reconstruction: An In Vitro Comparison of Various Constructs. <i>Journal of Hand Surgery</i> , 2007, 32, 688-696.	1.6	24
29	Quantitative Ultrashort Echo Time Magnetic Resonance Imaging Evaluation of Postoperative Menisci: a Pilot Study. <i>HSS Journal</i> , 2015, 11, 123-129.	1.7	24
30	Effects of Ankle-Foot Orthoses on Ankle and Foot Kinematics in Patients With Subtalar Osteoarthritis. <i>Archives of Physical Medicine and Rehabilitation</i> , 2006, 87, 1131-1136.	0.9	23
31	Ultrashort echo imaging of cyclically loaded rabbit patellar tendon. <i>Journal of Biomechanics</i> , 2014, 47, 3428-3432.	2.1	23
32	Clinical platform for understanding the relationship between joint contact mechanics and articular cartilage changes after meniscal surgery. <i>Journal of Orthopaedic Research</i> , 2017, 35, 600-611.	2.3	20
33	Examiner repeatability of patellar cartilage T2 values. <i>Magnetic Resonance Imaging</i> , 2009, 27, 131-136.	1.8	18
34	A Method for Quantifying Condylar Motion in Patients With Osteoarthritis Using an Electromagnetic Tracking Device and Computed Tomography Imaging. <i>Journal of Oral and Maxillofacial Surgery</i> , 2008, 66, 848-857.	1.2	17
35	Image based weighted center of proximity versus directly measured knee contact location during simulated gait. <i>Journal of Biomechanics</i> , 2014, 47, 2483-2489.	2.1	17
36	Effects of Surgical Factors on Cartilage Can Be Detected Using Quantitative Magnetic Resonance Imaging After Anterior Cruciate Ligament Reconstruction. <i>American Journal of Sports Medicine</i> , 2017, 45, 1075-1084.	4.2	16

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37	An in vivo model of a mechanically-induced bone marrow lesion. <i>Journal of Biomechanics</i> , 2017, 64, 258-261.	2.1	16
38	MRI of Hip Arthroplasties: Comparison of Isotropic Multiacquisition Variable-Resonance Image Combination Selective (MAVRIC SL) Acquisitions With a Conventional MAVRIC SL Acquisition. <i>American Journal of Roentgenology</i> , 2019, 213, W277-W286.	2.2	16
39	Kinematic Assessment of the Temporomandibular Joint Before and After Partial Metal Fossa Eminence Replacement Surgery: A Prospective Study. <i>Journal of Oral and Maxillofacial Surgery</i> , 2008, 66, 1383-1389.	1.2	15
40	Adverse Local Tissue Reactions are Common in Asymptomatic Individuals After Hip Resurfacing Arthroplasty: Interim Report from a Prospective Longitudinal Study. <i>Clinical Orthopaedics and Related Research</i> , 2021, 479, 2633-2650.	1.5	15
41	A statistically-augmented computational platform for evaluating meniscal function. <i>Journal of Biomechanics</i> , 2015, 48, 1444-1453.	2.1	13
42	Two-Year Evaluation of Osteochondral Repair with a Novel Biphasic Graft Saturated in Bone Marrow in an Equine Model. <i>Cartilage</i> , 2017, 8, 406-416.	2.7	12
43	Accuracy and precision of a method to study kinematics of the temporomandibular joint: Combination of motion data and CT imaging. <i>Journal of Biomechanics</i> , 2008, 41, 2581-2584.	2.1	11
44	What is the Diagnostic Accuracy of MRI for Component Loosening in THA?. <i>Clinical Orthopaedics and Related Research</i> , 2019, 477, 2085-2094.	1.5	11
45	MRI-based Texture Analysis of Trabecular Bone for Opportunistic Screening of Skeletal Fragility. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2021, 106, 2233-2241.	3.6	11
46	Correlation of Magnetic Resonance Imaging and Histologic Examination of Physeal Bars in a Rabbit Model. <i>Journal of Pediatric Orthopaedics</i> , 2010, 30, 928-935.	1.2	10
47	Diagnostic Performance of MRI for Component Loosening in Total Knee Arthroplasty Compared with Radiography. <i>Radiology</i> , 2022, 304, 128-136.	7.3	10
48	Validation of Cartilage Thickness Calculations Using Indentation Analysis. <i>Journal of Biomechanical Engineering</i> , 2010, 132, 041007.	1.3	9
49	Clinical magnetic resonance imaging of arthroplasty at 1.5T. <i>Journal of Orthopaedic Research</i> , 2020, 38, 1455-1464.	2.3	9
50	Effects of the Competitive Season and Off-Season on Knee Articular Cartilage in Collegiate Basketball Players Using Quantitative MRI: A Multicenter Study. <i>Journal of Magnetic Resonance Imaging</i> , 2021, 54, 840-851.	3.4	9
51	Flexible longitudinal magnetization contrast in spectrally overlapped 3D-MSI metal artifact reduction sequences: Technical considerations and clinical impact. <i>Magnetic Resonance in Medicine</i> , 2015, 74, 1349-1355.	3.0	8
52	Off-resonance based assessment of metallic wear debris near total hip arthroplasty. <i>Magnetic Resonance in Medicine</i> , 2018, 79, 1628-1637.	3.0	8
53	Multiparametric MRI characterization of knee articular cartilage and subchondral bone shape in collegiate basketball players. <i>Journal of Orthopaedic Research</i> , 2021, 39, 1512-1522.	2.3	8
54	Assessment of Osteonecrosis in the Presence of Instrumentation for Femoral Neck Fracture Using Contrast-Enhanced MAVRIC Sequence. <i>HSS Journal</i> , 2016, 12, 51-58.	1.7	7

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55	Multiacquisition Variable-Resonance Image Combination Magnetic Resonance Imaging Used to Study Detailed Bone Apposition and Fixation of an Additively Manufactured Cementless Acetabular Shell. <i>Arthroplasty Today</i> , 2020, 6, 694-698.	1.6	7
56	Differences in the magnetic resonance imaging parameter T2* may be identified during the course of canine patellar tendon healing: a pilot study. <i>Quantitative Imaging in Medicine and Surgery</i> , 2021, 11, 1234-1246.	2.0	7
57	Magnetic Resonance Imaging T2 Values of Stifle Articular Cartilage in Normal Beagles. <i>Veterinary and Comparative Orthopaedics and Traumatology</i> , 2018, 31, 108-113.	0.5	6
58	3D multi-spectral T2 mapping near metal implants. <i>Magnetic Resonance in Medicine</i> , 2019, 82, 614-621.	3.0	6
59	The effect of freeze-thawing on magnetic resonance imaging T2* of freshly harvested bovine patellar tendon. <i>Quantitative Imaging in Medicine and Surgery</i> , 2015, 5, 368-73.	2.0	6
60	Magnetic resonance imaging and histologic features of the supraspinatus tendon in nonlame dogs. <i>American Journal of Veterinary Research</i> , 2018, 79, 836-844.	0.6	5
61	Multivariate use of MRI biomarkers to classify histologically confirmed necrosis in symptomatic total hip arthroplasty. <i>Journal of Orthopaedic Research</i> , 2020, 38, 1506-1514.	2.3	4
62	The Dorsal Ligament Complex: A Cadaveric, Histology, and Imaging Study. <i>Journal of Hand Surgery</i> , 2022, 47, 480.e1-480.e9.	1.6	4
63	Assessment of osteoarthritis functional outcomes and intra-articular injection volume in the rat anterior cruciate ligament transection model. <i>Journal of Orthopaedic Research</i> , 2022, 40, 2004-2014.	2.3	4
64	The Use of MRI Modeling to Enhance Osteochondral Transfer in Segmental Kienbock's Disease. <i>Cartilage</i> , 2012, 3, 188-193.	2.7	3
65	Quantitative Magnetic Resonance Imaging and Histological Comparison of Normal Canine Menisci. <i>Veterinary and Comparative Orthopaedics and Traumatology</i> , 2018, 31, 452-457.	0.5	3
66	Clinical Feasibility of Multi-Acquisition Variable-Resonance Image Combination-Based T2 Mapping near Hip Arthroplasty. <i>HSS Journal</i> , 2021, 17, 165-173.	1.7	3
67	Reproducibility of pathologic scoring systems for periprosthetic adverse local tissue reactions: A cross-sectional study. <i>Pathology Research and Practice</i> , 2021, 228, 153685.	2.3	3
68	Magnetic Resonance Imaging Synovial Classification Is Associated With Revision Indication and Polyethylene Insert Damage. <i>Journal of Arthroplasty</i> , 2022, 37, S342-S349.	3.1	3
69	Non-invasive magnetic resonance imaging diagnosis of presumed intermedioradial carpal bone avascular necrosis in the dog. <i>Canadian Veterinary Journal</i> , 2016, 57, 879-81.	0.0	2
70	Finite Element Modeling of Planus and Rectus Foot Types for the Study of First Metatarsophalangeal and First Metatarsocuneiform Joint Contact Mechanics. <i>Journal of Biomechanical Engineering</i> , 2022, 144, .	1.3	2
71	MRI as a Biomarker for Clinical Problems in Total Joint Arthroplasty: The Role of Retrieval Analysis. , 2018, , 245-260.		1
72	A Postmortem Analysis of Polyethylene Damage and Periprosthetic Tissue in Rotating Platform and Fixed Bearing Tibial Inserts. <i>Journal of Arthroplasty</i> , 2022, 37, 1203-1209.	3.1	1

#	ARTICLE	IF	CITATIONS
73	Patient specific three dimensional knee model. , 2011, , .		0
74	Editorial for "Quantitative MRI Reveals Microstructural Changes in the Upper Leg Muscles After Running a Marathon" Journal of Magnetic Resonance Imaging, 2020, 52, 418-419.	3.4	0
75	Animal Models of Bone Marrow Lesions in Osteoarthritis. JBMR Plus, 2022, 6, e10609.	2.7	0
76	Reply to the Letter to the Editor: Adverse Local Tissue Reactions are Common in Asymptomatic Individuals After Hip Resurfacing Arthroplasty: Interim Report from a Prospective Longitudinal Study. Clinical Orthopaedics and Related Research, 2022, Publish Ahead of Print, .	1.5	0