

# Jonathan R T Jeffers

## List of Publications by Year in descending order

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Version: 2024-02-01

41  
papers

820  
citations

623734

14  
h-index

526287

27  
g-index

41  
all docs

41  
docs citations

41  
times ranked

894  
citing authors

#	ARTICLE	IF	CITATIONS
1	A low friction, biphasic and boundary lubricating hydrogel for cartilage replacement. <i>Acta Biomaterialia</i> , 2018, 65, 102-111.	8.3	92
2	The design and in vivo testing of a locally stiffness-matched porous scaffold. <i>Applied Materials Today</i> , 2019, 15, 377-388.	4.3	84
3	Hip Joint Capsular Anatomy, Mechanics, and Surgical Management. <i>Journal of Bone and Joint Surgery - Series A</i> , 2019, 101, 2141-2151.	3.0	70
4	Does Capsular Laxity Lead to Microinstability of the Native Hip?. <i>American Journal of Sports Medicine</i> , 2018, 46, 1315-1323.	4.2	63
5	Individual response variations in scaffold-guided bone regeneration are determined by independent strain- and injury-induced mechanisms. <i>Biomaterials</i> , 2019, 194, 183-194.	11.4	63
6	Total ankle replacement design and positioning affect implant-bone micromotion and bone strains. <i>Medical Engineering and Physics</i> , 2017, 42, 80-90.	1.7	58
7	The envelope of passive motion allowed by the capsular ligaments of the hip. <i>Journal of Biomechanics</i> , 2015, 48, 3803-3809.	2.1	42
8	Anatomic Predictors of Sagittal Hip and Pelvic Motions in Patients With a Cam Deformity. <i>American Journal of Sports Medicine</i> , 2018, 46, 1331-1342.	4.2	41
9	Design and clinical application of injectable hydrogels for musculoskeletal therapy. <i>Bioengineering and Translational Medicine</i> , 2022, 7, .	7.1	29
10	Additive manufactured push-fit implant fixation with screw-strength pull out. <i>Journal of Orthopaedic Research</i> , 2018, 36, 1508-1518.	2.3	27
11	Capsular Ligament Function After Total Hip Arthroplasty. <i>Journal of Bone and Joint Surgery - Series A</i> , 2018, 100, e94.	3.0	23
12	Spatial mapping of humeral head bone density. <i>Journal of Shoulder and Elbow Surgery</i> , 2017, 26, 1653-1661.	2.6	22
13	Hip Joint Torsional Loading Before and After Cam Femoroacetabular Impingement Surgery. <i>American Journal of Sports Medicine</i> , 2019, 47, 420-430.	4.2	20
14	Cam Osteochondroplasty for Femoroacetabular Impingement Increases Microinstability in Deep Flexion: A Cadaveric Study. <i>Arthroscopy - Journal of Arthroscopic and Related Surgery</i> , 2021, 37, 159-170.	2.7	17
15	In vitro hip testing in the International Society of Biomechanics coordinate system. <i>Journal of Biomechanics</i> , 2016, 49, 4154-4158.	2.1	13
16	Robotic hip joint testing: Development and experimental protocols. <i>Medical Engineering and Physics</i> , 2019, 63, 57-62.	1.7	13
17	Tribological evaluation of a novel hybrid for repair of articular cartilage defects. <i>Materials Science and Engineering C</i> , 2021, 119, 111495.	7.3	13
18	Zirconia phase transformation in retrieved, wear simulated, and artificially aged ceramic femoral heads. <i>Journal of Orthopaedic Research</i> , 2017, 35, 2781-2789.	2.3	12

#	ARTICLE	IF	CITATIONS
19	Effect of impact energy on dynamic bone strains, fixation strength, and seating of cementless acetabular cups. <i>Journal of Orthopaedic Research</i> , 2019, 37, 2367-2375.	2.3	11
20	Stability of small pegs for cementless implant fixation. <i>Journal of Orthopaedic Research</i> , 2017, 35, 2765-2772.	2.3	9
21	An in vitro model of impaction during hip arthroplasty. <i>Journal of Biomechanics</i> , 2019, 82, 220-227.	2.1	9
22	Mapping the Multi-Directional Mechanical Properties of Bone in the Proximal Tibia. <i>Advanced Functional Materials</i> , 2020, 30, 2004323.	14.9	9
23	Mechanical and morphological properties of additively manufactured SS316L and Ti6Al4V micro-struts as a function of build angle. <i>Additive Manufacturing</i> , 2021, 46, 102050.	3.0	9
24	High resolution three-dimensional strain measurements in human articular cartilage. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 124, 104806.	3.1	9
25	Impaction technique influences implant stability in low-density bone model. <i>Bone and Joint Research</i> , 2020, 9, 386-393.	3.6	8
26	Capsular ligaments provide a passive stabilizing force to protect the hip against edge loading. <i>Bone and Joint Research</i> , 2021, 10, 594-601.	3.6	7
27	Quantifying 3D Strain in Scaffold Implants for Regenerative Medicine. <i>Materials</i> , 2020, 13, 3890.	2.9	6
28	Development of an Automated Mass-Customization Pipeline for Knee Replacement Surgery Using Biplanar X-Rays. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2022, 144, .	2.9	6
29	Laser powder bed fusion of porous graded structures: A comparison between computational and experimental analysis. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 123, 104784.	3.1	6
30	Micromotion and Push-Out Evaluation of an Additive Manufactured Implant for Above-the-Knee Amputees. <i>Journal of Orthopaedic Research</i> , 2019, 37, 2104-2111.	2.3	5
31	Exploratory Full-Field Mechanical Analysis across the Osteochondral Tissue-Biomaterial Interface in an Ovine Model. <i>Materials</i> , 2020, 13, 3911.	2.9	5
32	Total and partial knee arthroplasty implants that maintain native load transfer in the tibia. <i>Bone and Joint Research</i> , 2022, 11, 91-101.	3.6	5
33	Lattice implants that generate homeostatic and remodeling strains in bone. <i>Journal of Orthopaedic Research</i> , 2022, 40, 871-877.	2.3	3
34	Power-Tool Use in Orthopaedic Surgery. <i>JBJS Open Access</i> , 2021, 6, .	1.5	3
35	Performance and Sensitivity Analysis of an Automated X-Ray Based Total Knee Replacement Mass-Customization Pipeline. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2022, 16, .	0.7	3
36	The role of biomechanics and engineering in total hip replacement. Why surgeons need technical help. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2012, 226, 947-954.	1.8	2

#	ARTICLE	IF	CITATIONS
37	A computational design of experiments based method for evaluation of off-the-shelf total knee replacement implants. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2022, , 1-10.	1.6	2
38	Validity of repeated-measures analyses of in vitro arthroplasty kinematics and kinetics. <i>Journal of Biomechanics</i> , 2021, 129, 110669.	2.1	1
39	Anatomical Mapping: Mapping the Multi-Directional Mechanical Properties of Bone in the Proximal Tibia ( <i>Adv. Funct. Mater.</i> 46/2020). <i>Advanced Functional Materials</i> , 2020, 30, 2070301.	14.9	0
40	Biomechanics of the Native Hip from Normal to Instability. , 2020, , 55-70.		0
41	Capsular Mechanics After Periacetabular Osteotomy for Hip Dysplasia. <i>Journal of Bone and Joint Surgery - Series A</i> , 2022, Publish Ahead of Print, .	3.0	0