Jonathan R T Jeffers

List of Publications by Year
in descending order

41	820	623734	526287
papers	citations	14 h-index	27 g-index

41	41	41	894
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Lattice implants that generate homeostatic and remodeling strains in bone. Journal of Orthopaedic Research, 2022, 40, 871-877.	2.3	3
2	Development of an Automated Mass-Customization Pipeline for Knee Replacement Surgery Using Biplanar X-Rays. Journal of Mechanical Design, Transactions of the ASME, 2022, 144, .	2.9	6
3	Design and clinical application of injectable hydrogels for musculoskeletal therapy. Bioengineering and Translational Medicine, 2022, 7, .	7.1	29
4	Capsular Mechanics After Periacetabular Osteotomy for Hip Dysplasia. Journal of Bone and Joint Surgery - Series A, 2022, Publish Ahead of Print, .	3.0	0
5	Total and partial knee arthroplasty implants that maintain native load transfer in the tibia. Bone and Joint Research, 2022, 11, 91-101.	3.6	5
6	A computational design of experiments based method for evaluation of off-the-shelf total knee replacement implants. Computer Methods in Biomechanics and Biomedical Engineering, 2022, , 1-10.	1.6	2
7	Performance and Sensitivity Analysis of an Automated X-Ray Based Total Knee Replacement Mass-Customization Pipeline. Journal of Medical Devices, Transactions of the ASME, 2022, 16, .	0.7	3
8	Tribological evaluation of a novel hybrid for repair of articular cartilage defects. Materials Science and Engineering C, 2021, 119, 111495.	7.3	13
9	Cam Osteochondroplasty for Femoroacetabular Impingement Increases Microinstability in Deep Flexion: A Cadaveric Study. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2021, 37, 159-170.	2.7	17
10	Capsular ligaments provide a passive stabilizing force to protect the hip against edge loading. Bone and Joint Research, 2021, 10, 594-601.	3.6	7
11	Mechanical and morphological properties of additively manufactured SS316L and Ti6Al4V micro-struts as a function of build angle. Additive Manufacturing, 2021, 46, 102050.	3.0	9
12	Laser powder bed fusion of porous graded structures: A comparison between computational and experimental analysis. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 123, 104784.	3.1	6
13	High resolution three-dimensional strain measurements in human articular cartilage. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 124, 104806.	3.1	9
14	Validity of repeated-measures analyses of in vitro arthroplasty kinematics and kinetics. Journal of Biomechanics, 2021, 129, 110669.	2.1	1
15	Power-Tool Use in Orthopaedic Surgery. JBJS Open Access, 2021, 6, .	1.5	3
16	Anatomical Mapping: Mapping the Multiâ€Directional Mechanical Properties of Bone in the Proximal Tibia (Adv. Funct. Mater. 46/2020). Advanced Functional Materials, 2020, 30, 2070301.	14.9	0
17	Impaction technique influences implant stability in low-density bone model. Bone and Joint Research, 2020, 9, 386-393.	3.6	8
18	Mapping the Multiâ€Directional Mechanical Properties of Bone in the Proximal Tibia. Advanced Functional Materials, 2020, 30, 2004323.	14.9	9

#	Article	IF	Citations
19	Quantifying 3D Strain in Scaffold Implants for Regenerative Medicine. Materials, 2020, 13, 3890.	2.9	6
20	Exploratory Full-Field Mechanical Analysis across the Osteochondral Tissueâ€"Biomaterial Interface in an Ovine Model. Materials, 2020, 13, 3911.	2.9	5
21	Biomechanics of the Native Hip from Normal to Instability. , 2020, , 55-70.		0
22	Effect of impaction energy on dynamic bone strains, fixation strength, and seating of cementless acetabular cups. Journal of Orthopaedic Research, 2019, 37, 2367-2375.	2.3	11
23	Micromotion and Pushâ€Out Evaluation of an Additive Manufactured Implant for Aboveâ€theâ€Knee Amputees. Journal of Orthopaedic Research, 2019, 37, 2104-2111.	2.3	5
24	The design and in vivo testing of a locally stiffness-matched porous scaffold. Applied Materials Today, 2019, 15, 377-388.	4.3	84
25	Hip Joint Capsular Anatomy, Mechanics, and Surgical Management. Journal of Bone and Joint Surgery - Series A, 2019, 101, 2141-2151.	3.0	70
26	Hip Joint Torsional Loading Before and After Cam Femoroacetabular Impingement Surgery. American Journal of Sports Medicine, 2019, 47, 420-430.	4.2	20
27	Robotic hip joint testing: Development and experimental protocols. Medical Engineering and Physics, 2019, 63, 57-62.	1.7	13
28	Individual response variations in scaffold-guided bone regeneration are determined by independent strain- and injury-induced mechanisms. Biomaterials, 2019, 194, 183-194.	11.4	63
29	An in vitro model of impaction during hip arthroplasty. Journal of Biomechanics, 2019, 82, 220-227.	2.1	9
30	Does Capsular Laxity Lead to Microinstability of the Native Hip?. American Journal of Sports Medicine, 2018, 46, 1315-1323.	4.2	63
31	Anatomic Predictors of Sagittal Hip and Pelvic Motions in Patients With a Cam Deformity. American Journal of Sports Medicine, 2018, 46, 1331-1342.	4.2	41
32	Additive manufactured pushâ€fit implant fixation with screwâ€strength pull out. Journal of Orthopaedic Research, 2018, 36, 1508-1518.	2.3	27
33	A low friction, biphasic and boundary lubricating hydrogel for cartilage replacement. Acta Biomaterialia, 2018, 65, 102-111.	8.3	92
34	Capsular Ligament Function After Total Hip Arthroplasty. Journal of Bone and Joint Surgery - Series A, 2018, 100, e94.	3.0	23
35	Total ankle replacement design and positioning affect implant-bone micromotion and bone strains. Medical Engineering and Physics, 2017, 42, 80-90.	1.7	58
36	Zirconia phase transformation in retrieved, wear simulated, and artificially aged ceramic femoral heads. Journal of Orthopaedic Research, 2017, 35, 2781-2789.	2.3	12

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37	Stability of small pegs for cementless implant fixation. Journal of Orthopaedic Research, 2017, 35, 2765-2772.	2.3	9
38	Spatial mapping of humeral head bone density. Journal of Shoulder and Elbow Surgery, 2017, 26, 1653-1661.	2.6	22
39	In vitro hip testing in the International Society of Biomechanics coordinate system. Journal of Biomechanics, 2016, 49, 4154-4158.	2.1	13
40	The envelope of passive motion allowed by the capsular ligaments of the hip. Journal of Biomechanics, 2015, 48, 3803-3809.	2.1	42
41	The role of biomechanics and engineering in total hip replacement. Why surgeons need technical help. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2012, 226, 947-954.	1.8	2