

Donald D Anderson

List of Publications by Year in descending order

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Version: 2024-02-01

106
papers

3,738
citations

117453

34
h-index

138251

58
g-index

109
all docs

109
docs citations

109
times ranked

3557
citing authors

#	ARTICLE	IF	CITATIONS
1	Biomechanical guidance can improve accuracy of reduction for intra-articular tibia plafond fractures and reduce joint contact stress. <i>Journal of Orthopaedic Research</i> , 2023, 41, 546-554.	1.2	3
2	Failure of Orthopaedic Residents to Voluntarily Participate in a Laboratory Skills Training. <i>Journal of the American Academy of Orthopaedic Surgeons</i> , The, 2022, 30, 161-167.	1.1	2
3	Minimally trained analysts can perform fast, objective assessment of orthopedic technical skill from fluoroscopic images. <i>IIEE Transactions on Healthcare Systems Engineering</i> , 2022, 12, 212-220.	1.2	1
4	Postimpingement instability following reverse shoulder arthroplasty: a parametric finite element analysis. <i>Seminars in Arthroplasty</i> , 2021, 31, 36-44.	0.3	3
5	Surgical Skill Can be Objectively Measured From Fluoroscopic Images Using a Novel Image-based Decision Error Analysis (IDEA) Score. <i>Clinical Orthopaedics and Related Research</i> , 2021, 479, 1386-1394.	0.7	4
6	Influence of subscapularis stiffness with glenosphere lateralization on physiological external rotation limits after reverse shoulder arthroplasty. <i>Journal of Shoulder and Elbow Surgery</i> , 2021, 30, 2629-2637.	1.2	5
7	The longitudinal relationship between tibiofemoral contact stress at baseline and worsening of knee pain over 84-months in The Multicenter Osteoarthritis Study. <i>American Journal of Physical Medicine and Rehabilitation</i> , 2021, Publish Ahead of Print, .	0.7	0
8	Designing a 3D Printed Bone Simulant for Wire Navigation Training. , 2021, , .		1
9	Developing a Wire Navigation Simulator for Pedicle Screw Placement in Minimally Invasive Transforaminal Lumbar Interbody Fusion. , 2021, , .		0
10	Editorial commentary on Fritz et al. article entitled "Three-dimensional analysis for quantification of knee joint space width with weight-bearing CT: comparison with non-weight-bearing CT and weight-bearing radiography". <i>Osteoarthritis and Cartilage</i> , 2021, , .	0.6	0
11	The relationship of three-dimensional joint space width on weight-bearing CT with pain and physical function. <i>Journal of Orthopaedic Research</i> , 2020, 38, 1333-1339.	1.2	6
12	Correlation of 3D Joint Space Width From Weightbearing CT With Outcomes After Intra-articular Calcaneal Fracture. <i>Foot and Ankle International</i> , 2020, 41, 1106-1116.	1.1	17
13	Weight-Bearing CT Scan After Tibial Pilon Fracture Demonstrates Significant Early Joint-Space Narrowing. <i>Journal of Bone and Joint Surgery - Series A</i> , 2020, 102, 796-803.	1.4	19
14	A Pediatric Supracondylar Humerus Fracture Wire Navigation Simulator. , 2020, , .		0
15	A Vision for Using Simulation & Virtual Coaching to Improve the Community Practice of Orthopedic Trauma Surgery. <i>Iowa orthopaedic journal</i> , The, 2020, 40, 25-34.	0.5	1
16	An Extensible Orthopedic Wire Navigation Simulation Platform. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2019, 13, 031001-310017.	0.4	3
17	Advancing Simulation-Based Orthopaedic Surgical Skills Training: An Analysis of the Challenges to Implementation. <i>Advances in Orthopedics</i> , 2019, 2019, 1-7.	0.4	14
18	Correlation of Fracture Energy With Sanders Classification and Post-traumatic Osteoarthritis After Displaced Intra-articular Calcaneus Fractures. <i>Journal of Orthopaedic Trauma</i> , 2019, 33, 261-266.	0.7	10

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19	Do Skills Acquired from Training with a Wire Navigation Simulator Transfer to a Mock Operating Room Environment?. <i>Clinical Orthopaedics and Related Research</i> , 2019, 477, 2189-2198.	0.7	8
20	The Influence of Different Rotator Cuff Deficiencies on Shoulder Stability Following Reverse Shoulder Arthroplasty. <i>Iowa orthopaedic journal, The</i> , 2019, 39, 63-68.	0.5	2
21	Measuring Surgical Skills in Simulation-based Training. <i>Journal of the American Academy of Orthopaedic Surgeons, The</i> , 2018, 26, e156-e157.	1.1	0
22	Developing an objective assessment of surgical performance from operating room video and surgical imagery. <i>IISE Transactions on Healthcare Systems Engineering</i> , 2018, 8, 110-116.	1.2	12
23	Discrete element analysis is a valid method for computing joint contact stress in the hip before and after acetabular fracture. <i>Journal of Biomechanics</i> , 2018, 67, 9-17.	0.9	20
24	The Effect of Arch Drop on Tibial Rotation and Tibiofemoral Contact Stress in Postpartum Women. <i>PM and R</i> , 2018, 10, 1137-1144.	0.9	6
25	Design of a Percutaneous Articular Fracture Reduction Simulator. , 2018, 2018, .		1
26	Comparison of tibiofemoral joint space width measurements from standing CT and fixed flexion radiography. <i>Journal of Orthopaedic Research</i> , 2017, 35, 1388-1395.	1.2	37
27	Testâ€“retest reliability of tibiofemoral joint space width measurements made using a low-dose standing CT scanner. <i>Skeletal Radiology</i> , 2017, 46, 217-222.	1.2	29
28	The effect of glenoid component version and humeral polyethylene liner rotation on subluxation and impingement in reverse shoulder arthroplasty. <i>Journal of Shoulder and Elbow Surgery</i> , 2017, 26, 1718-1725.	1.2	24
29	Effect of Ankle Position and Noninvasive Distraction on Arthroscopic Accessibility of the Distal Tibial Plafond. <i>Foot and Ankle International</i> , 2017, 38, 1152-1159.	1.1	4
30	Optimizing Arthroscopy for Osteochondral Lesions of the Talus: The Effect of Ankle Positions and Distraction During Anterior and Posterior Arthroscopy in a Cadaveric Model. <i>Arthroscopy - Journal of Arthroscopic and Related Surgery</i> , 2017, 33, 2238-2245.	1.3	11
31	Complementary models reveal cellular responses to contact stresses that contribute to postâ€“traumatic osteoarthritis. <i>Journal of Orthopaedic Research</i> , 2017, 35, 515-523.	1.2	15
32	Mathematics as a conduit for translational research in postâ€“traumatic osteoarthritis. <i>Journal of Orthopaedic Research</i> , 2017, 35, 566-572.	1.2	7
33	Fractures of the tibial plateau involve similar energies as the tibial pilon but greater articular surface involvement. <i>Journal of Orthopaedic Research</i> , 2017, 35, 618-624.	1.2	6
34	Designing an Extensible Wire Navigation Simulation Platform. , 2017, , .		0
35	Tibial Plateau Fractures: A New Rank Ordering Method For Determining To What Degree Injury Severity Or Quality Of Reduction Correlate With Clinical Outcome. <i>Iowa orthopaedic journal, The</i> , 2017, 37, 57-63.	0.5	3
36	Correlations of Medial Joint Space Width on Fixedâ€“Flexed Standing Computed Tomography and Radiographs With Cartilage and Meniscal Morphology on Magnetic Resonance Imaging. <i>Arthritis Care and Research</i> , 2016, 68, 1410-1416.	1.5	30

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37	Designing an Affordable Wire Navigation Surgical Simulator ¹ . Journal of Medical Devices, Transactions of the ASME, 2016, 10, .	0.4	5
38	Cadaveric validation of a finite element modeling approach for studying scapular notching in reverse shoulder arthroplasty. Journal of Biomechanics, 2016, 49, 3069-3073.	0.9	9
39	Assessing Wire Navigation Performance in the Operating Room. Journal of Surgical Education, 2016, 73, 780-787.	1.2	11
40	Objective Metric of Energy Absorbed in Tibial Plateau Fractures Corresponds Well to Clinician Assessment of Fracture Severity. Journal of Orthopaedic Trauma, 2016, 30, 551-556.	0.7	4
41	Motion Predicts Clinical Callus Formation. Journal of Bone and Joint Surgery - Series A, 2016, 98, 276-284.	1.4	66
42	Objective Structured Assessments of Technical Skills (OSATS) Does Not Assess the Quality of the Surgical Result Effectively. Clinical Orthopaedics and Related Research, 2016, 474, 874-881.	0.7	66
43	Value Added: the Case for Point-of-View Camera use in Orthopedic Surgical Education. Iowa orthopaedic journal, The, 2016, 36, 7-12.	0.5	8
44	Expedited CT-Based Methods for Evaluating Fracture Severity to Assess Risk of Post-Traumatic Osteoarthritis After Articular Fractures. Iowa orthopaedic journal, The, 2016, 36, 46-52.	0.5	5
45	Effect of a Realigning Brace on Tibiofemoral Contact Stress. Arthritis Care and Research, 2015, 67, 1112-1118.	1.5	4
46	A Hybrid Reality Radiation-Free Simulator for Teaching Wire Navigation Skills. Journal of Orthopaedic Trauma, 2015, 29, e385-e390.	0.7	13
47	Special issue on symposia organized by the American Society of Biomechanics at the 7th World Congress of Biomechanics. Journal of Biomechanics, 2015, 48, 2835-2836.	0.9	0
48	The Validity and Reliability of a Hybrid Reality Simulator for Wire Navigation in Orthopedic Surgery. IEEE Transactions on Human-Machine Systems, 2015, 45, 119-125.	2.5	13
49	Surgical Coaching from Head-Mounted Video in the Training of Fluoroscopically Guided Articular Fracture Surgery. Journal of Bone and Joint Surgery - Series A, 2015, 97, 1031-1039.	1.4	67
50	Expedited patient-specific assessment of contact stress exposure in the ankle joint following definitive articular fracture reduction. Journal of Biomechanics, 2015, 48, 3427-3432.	0.9	39
51	Mechanical tradeoffs associated with glenosphere lateralization in reverse shoulder arthroplasty. Journal of Shoulder and Elbow Surgery, 2015, 24, 1774-1781.	1.2	59
52	Measurement of Severity of Injury After Articular Fracture and Correlation with Post-Traumatic Arthritis Development. , 2015, , 305-315.		0
53	A Surgical Skills Training Curriculum for PGY-1 Residents. Journal of Bone and Joint Surgery - Series A, 2014, 96, e140.	1.4	8
54	A method to represent heterogeneous materials for rapid prototyping: the Matryoshka approach. Rapid Prototyping Journal, 2014, 20, 390-402.	1.6	21

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55	Computational techniques for the assessment of fracture repair. <i>Injury</i> , 2014, 45, S23-S31.	0.7	24
56	A review of the role of simulation in developing and assessing orthopaedic surgical skills. <i>Iowa orthopaedic journal, The</i> , 2014, 34, 181-9.	0.5	35
57	The Roles of Mechanical Stresses in the Pathogenesis of Osteoarthritis. <i>Cartilage</i> , 2013, 4, 286-294.	1.4	175
58	Varus External Rotation Stress Test for Radiographic Detection of Deep Deltoid Ligament Disruption With and Without Syndesmotom Disruption. <i>Foot and Ankle International</i> , 2013, 34, 251-260.	1.1	35
59	A Simulation Trainer for Complex Articular Fracture Surgery. <i>Journal of Bone and Joint Surgery - Series A</i> , 2013, 95, e92.	1.4	26
60	Development of an orthopaedic surgical skills curriculum for post-graduate year one resident learners - the University of Iowa experience. <i>Iowa orthopaedic journal, The</i> , 2013, 33, 178-84.	0.5	10
61	Motion Versus Fixed Distraction of the Joint in the Treatment of Ankle Osteoarthritis. <i>Journal of Bone and Joint Surgery - Series A</i> , 2012, 94, 961-970.	1.4	86
62	Reliability of Semiautomated Computational Methods for Estimating Tibiofemoral Contact Stress in the Multicenter Osteoarthritis Study. <i>Computational and Mathematical Methods in Medicine</i> , 2012, 2012, 1-8.	0.7	5
63	Designing a Biomechanics Investigation. <i>Journal of Orthopaedic Trauma</i> , 2012, 26, 672-677.	0.7	23
64	Elevated tibiofemoral articular contact stress predicts risk for bone marrow lesions and cartilage damage at 30 months. <i>Osteoarthritis and Cartilage</i> , 2012, 20, 1120-1126.	0.6	45
65	Application of surgical skill simulation training and assessment in orthopaedic trauma. <i>Iowa orthopaedic journal, The</i> , 2012, 32, 76-82.	0.5	10
66	ASB Clinical Biomechanics Award Paper 2010. <i>Clinical Biomechanics</i> , 2011, 26, 109-115.	0.5	24
67	Subchondral bone remodeling is related to clinical improvement after joint distraction in the treatment of ankle osteoarthritis. <i>Osteoarthritis and Cartilage</i> , 2011, 19, 668-675.	0.6	105
68	Is elevated contact stress predictive of post-traumatic osteoarthritis for imprecisely reduced tibial plafond fractures?. <i>Journal of Orthopaedic Research</i> , 2011, 29, 33-39.	1.2	74
69	Post-traumatic osteoarthritis: Improved understanding and opportunities for early intervention. <i>Journal of Orthopaedic Research</i> , 2011, 29, 802-809.	1.2	511
70	A computational/experimental platform for investigating three-dimensional puzzle solving of comminuted articular fractures. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2011, 14, 263-270.	0.9	31
71	on the Horizon From the ORS. <i>Journal of the American Academy of Orthopaedic Surgeons, The</i> , 2011, 19, 644-647.	1.1	0
72	The pathomechanical etiology of post-traumatic osteoarthritis following intraarticular fractures. <i>Iowa orthopaedic journal, The</i> , 2011, 31, 1-20.	0.5	36

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73	Objective CT-Based Metrics of Articular Fracture Severity to Assess Risk for Posttraumatic Osteoarthritis. <i>Journal of Orthopaedic Trauma</i> , 2010, 24, 764-769.	0.7	43
74	The Sequential Recovery of Health Status After Tibial Plafond Fractures. <i>Journal of Orthopaedic Trauma</i> , 2010, 24, 499-504.	0.7	36
75	Implementation of Discrete Element Analysis for Subject-Specific, Population-Wide Investigations of Habitual Contact Stress Exposure. <i>Journal of Applied Biomechanics</i> , 2010, 26, 215-223.	0.3	33
76	LOGISMOSâ€”Layered Optimal Graph Image Segmentation of Multiple Objects and Surfaces: Cartilage Segmentation in the Knee Joint. <i>IEEE Transactions on Medical Imaging</i> , 2010, 29, 2023-2037.	5.4	190
77	Effect of Implantation Accuracy on Ankle Contact Mechanics with a Metallic Focal Resurfacing Implant. <i>Journal of Bone and Joint Surgery - Series A</i> , 2010, 92, 1490-1500.	1.4	39
78	Utility of double-contrast multidetector CT scans to assess cartilage thickness after tibial plafond fracture. <i>Orthopedic Research and Reviews</i> , 2009, Volume 1, 23-29.	0.7	7
79	Virtual 3D bone fracture reconstruction via inter-fragmentary surface alignment. , 2009, , .		2
80	Improving inter-fragmentary alignment for virtual 3D reconstruction of highly fragmented bone fractures. <i>Proceedings of SPIE</i> , 2009, , .	0.8	5
81	Baseline articular contact stress levels predict incident symptomatic knee osteoarthritis development in the MOST cohort. <i>Journal of Orthopaedic Research</i> , 2009, 27, 1562-1568.	1.2	105
82	On the Horizon From the ORS. <i>Journal of the American Academy of Orthopaedic Surgeons</i> , The, 2009, 17, 473-476.	1.1	0
83	Quantifying tibial plafond fracture severity: Absorbed energy and fragment displacement agree with clinical rank ordering. <i>Journal of Orthopaedic Research</i> , 2008, 26, 1046-1052.	1.2	49
84	Patientâ€”specific finite element analysis of chronic contact stress exposure after intraarticular fracture of the tibial plafond. <i>Journal of Orthopaedic Research</i> , 2008, 26, 1039-1045.	1.2	57
85	A method for the estimation of normative bone surface area to aid in objective CT-based fracture severity assessment. <i>Iowa orthopaedic journal</i> , The, 2008, 28, 9-13.	0.5	10
86	3D reconstruction of highly fragmented bone fractures. , 2007, , .		18
87	Quantification of ankle articular cartilage topography and thickness using a high resolution stereophotography system. <i>Osteoarthritis and Cartilage</i> , 2007, 15, 205-211.	0.6	86
88	Physical validation of a patient-specific contact finite element model of the ankle. <i>Journal of Biomechanics</i> , 2007, 40, 1662-1669.	0.9	81
89	Registration of Surfaces to 3D Images Using Rigid Body Surfaces. , 2006, , .		4
90	Intra-articular Contact Stress Distributions at the Ankle Throughout Stance Phaseâ€”patient-specific Finite Element Analysis as a Metric of Degeneration Propensity. <i>Biomechanics and Modeling in Mechanobiology</i> , 2006, 5, 82-89.	1.4	56

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91	Interfragmentary surface area as an index of comminution severity in cortical bone impact. Journal of Orthopaedic Research, 2005, 23, 686-690.	1.2	39
92	A three-dimensional finite element model of the radiocarpal joint: distal radius fracture step-off and stress transfer. Iowa orthopaedic journal, The, 2005, 25, 108-17.	0.5	32
93	Shoulder kinematics in subjects with frozen shoulder ¹¹ No commercial party having a direct financial interest in the results of the research supporting this article has or will confer a benefit upon the author(s) or upon any organization with which the author(s) is/are associated.. Archives of Physical Medicine and Rehabilitation, 2003, 84, 1473-1479.	0.5	115
94	The use of biological agents to accelerate recovery from rotator cuff repair: Path to clinical application. Operative Techniques in Sports Medicine, 2002, 10, 58-63.	0.2	7
95	Insulin-Like Growth Factor I Accelerates Functional Recovery from Achilles Tendon Injury in a Rat Model. American Journal of Sports Medicine, 1999, 27, 363-369.	1.9	197
96	Correlation of wrist ligamentotaxis with carpal distraction: Implications for external fixation. Journal of Hand Surgery, 1997, 22, 1052-1056.	0.7	12
97	Displaced intra-articular fractures of the distal radius: The effect of fracture displacement on contract stresses in a cadaver model. Journal of Hand Surgery, 1996, 21, 183-188.	0.7	94
98	The Effect of Intercondylar Notchplasty on the Patellofemoral Articulation. American Journal of Sports Medicine, 1996, 24, 843-846.	1.9	12
99	Contact Stress Distributions in Malreduced Intraarticular Distal Radius Fractures. Journal of Orthopaedic Trauma, 1996, 10, 331-337.	0.7	50
100	Biomechanical Evaluation of Cervical Spine Stabilization Methods Using a Porcine Model. Spine, 1995, 20, 2192-2197.	1.0	55
101	Radial Instability of the Metacarpophalangeal Joint of the Thumb. Journal of Hand Surgery, 1995, 20, 102-104.	0.9	16
102	The Influence of Basal Cartilage Calcification on Dynamic Juxtaarticular Stress Transmission. Clinical Orthopaedics and Related Research, 1993, &NA;, 298??307.	0.7	42
103	Stress Wave Effects in a Finite Element Analysis of an Impulsively Loaded Articular Joint. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 1991, 205, 27-34.	1.0	16
104	A Dynamic Finite Element Analysis of Impulsive Loading of the Extension-Splinted Rabbit Knee. Journal of Biomechanical Engineering, 1990, 112, 119-128.	0.6	29
105	Contact stress aberrations following imprecise reduction of simple tibial plateau fractures. Journal of Orthopaedic Research, 1988, 6, 851-862.	1.2	172
106	Effect of osteochondral defects on articular cartilage: Contact pressures studied in dog knees. Acta Orthopaedica, 1988, 59, 574-579.	1.4	68