

Brian L Davis

List of Publications by Year in descending order

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Version: 2024-02-01

53
papers

1,428
citations

279701

23
h-index

345118

36
g-index

54
all docs

54
docs citations

54
times ranked

1370
citing authors

#	ARTICLE	IF	CITATIONS
1	Pivot shift and Lachman test simulation-based exploration in juvenile populations for accurately predicting anterior tibial translation. <i>Journal of Biomechanics</i> , 2022, 136, 111069.	0.9	8
2	Examining feedback mechanisms of postural control in Chiari Malformation by average wavelet coefficient decomposition and the Hurst exponent. <i>Gait and Posture</i> , 2021, 88, 280-285.	0.6	1
3	Assessing the biomechanical properties of nitinol staples in normal, osteopenic and osteoporotic bone models: A finite element analysis. <i>Injury</i> , 2021, 52, 2820-2826.	0.7	7
4	The effect of frictional coefficients and sock material on plantar surface shear stress measurement. <i>Journal of Biomechanics</i> , 2021, 127, 110682.	0.9	3
5	Plantar pressure and shear measurement using surface stress-sensitive film. <i>Measurement Science and Technology</i> , 2020, 31, 025701.	1.4	10
6	Experimental thermal analysis of a novel prosthetic socket along with silicone and PCM liners. <i>Journal of Biomechanics</i> , 2020, 104, 109788.	0.9	4
7	Shear and pressure under the first ray in neuropathic diabetic patients: Implications for support of the longitudinal arch. <i>Journal of Biomechanics</i> , 2017, 52, 176-178.	0.9	8
8	Spatial frequency content of plantar pressure and shear profiles for diabetic and non-diabetic subjects. <i>Journal of Biomechanics</i> , 2016, 49, 3746-3748.	0.9	7
9	Correlations between stance time and shear stress peaks on the plantar skin surface of diabetic and non-diabetic patients. <i>Footwear Science</i> , 2015, 7, S13-S14.	0.8	0
10	Estimating Forces during Exercise Activity Using Non-invasive Kinect Camera. , 2015, , .		6
11	Design of a novel prosthetic socket: Assessment of the thermal performance. <i>Journal of Biomechanics</i> , 2015, 48, 1294-1299.	0.9	28
12	Expanded butterfly plots: A new method to analyze simultaneous pressure and shear on the plantar skin surface during gait. <i>Journal of Biomechanics</i> , 2015, 48, 2214-2216.	0.9	10
13	Association Between Plantar Temperatures and Triaxial Stresses in Individuals With Diabetes. <i>Diabetes Care</i> , 2015, 38, e178-e179.	4.3	16
14	Thermal Conductivities of Commercially Available Prosthetic Materials. <i>Journal of Prosthetics and Orthotics</i> , 2014, 26, 212-215.	0.2	8
15	Temperature as a predictive tool for plantar triaxial loading. <i>Journal of Biomechanics</i> , 2014, 47, 3767-3770.	0.9	40
16	Active functional stiffness of the knee joint during activities of daily living: A parameter for improved design of prosthetic limbs. <i>Clinical Biomechanics</i> , 2014, 29, 1193-1199.	0.5	3
17	Simulation Based Design and Evaluation of a Transcatheter Mitral Heart Valve Frame. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2012, 6, 31005-31012.	0.4	5
18	Modeling and Optimal Control of an Energy-Storing Prosthetic Knee. <i>Journal of Biomechanical Engineering</i> , 2012, 134, 051007.	0.6	29

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19	Exercise Equipment Used in Microgravity. <i>Current Sports Medicine Reports</i> , 2012, 11, 142-147.	0.5	11
20	Spatial relationships between shearing stresses and pressure on the plantar skin surface during gait. <i>Journal of Biomechanics</i> , 2012, 45, 619-622.	0.9	38
21	Simulation of lower limb axial arterial length change during locomotion. <i>Journal of Biomechanics</i> , 2012, 45, 1485-1490.	0.9	11
22	Neonatal and Infant Mandibular Distraction as an Alternative to Tracheostomy in Severe Obstructive Sleep Apnea. <i>Cleft Palate-Craniofacial Journal</i> , 2012, 49, 32-38.	0.5	53
23	Plantar Shear Stress Distribution in Athletic Individuals with Frictional Foot Blisters. <i>Journal of the American Podiatric Medical Association</i> , 2010, 100, 116-120.	0.2	14
24	Design and Validation of a General Purpose Robotic Testing System for Musculoskeletal Applications. <i>Journal of Biomechanical Engineering</i> , 2010, 132, 025001.	0.6	47
25	Plantar Shear Stress Distribution in Patients with Rheumatoid Arthritis. <i>Journal of the American Podiatric Medical Association</i> , 2010, 100, 265-269.	0.2	8
26	Evaluation of Diabetic Foot Ulcer Healing With Hyperspectral Imaging of Oxyhemoglobin and Deoxyhemoglobin. <i>Diabetes Care</i> , 2009, 32, 2056-2061.	4.3	153
27	Prediction of Plantar Shear Stress Distribution by Artificial Intelligence Methods. <i>Journal of Biomechanical Engineering</i> , 2009, 131, 091007.	0.6	15
28	Assessment of the Effects of Diabetes on Midfoot Joint Pressures Using a Robotic Gait Simulator. <i>Foot and Ankle International</i> , 2009, 30, 767-772.	1.1	23
29	Forefoot plantar shear stress distribution in hallux valgus patients. <i>Gait and Posture</i> , 2009, 30, 257-259.	0.6	31
30	Biomechanics - Part II. , 2009, , 69-77.		5
31	Management of exposed total knee prostheses with microvascular tissue transfer. <i>Microsurgery</i> , 2008, 28, 617-622.	0.6	38
32	Temporal characteristics of plantar shear distribution: Relevance to diabetic patients. <i>Journal of Biomechanics</i> , 2008, 41, 556-559.	0.9	85
33	Peak Plantar Pressure and Shear Locations. <i>Diabetes Care</i> , 2007, 30, 2643-2645.	4.3	80
34	Laser-induced auto-fluorescence (LIAF) as a method for assessing skin stiffness preceding diabetic ulcer formation. <i>Journal of Biomechanics</i> , 2007, 40, 736-741.	0.9	7
35	Plantar shear stress distributions: Comparing actual and predicted frictional forces at the foot-ground interface. <i>Journal of Biomechanics</i> , 2007, 40, 3045-3049.	0.9	63
36	Simultaneous shear and pressure sensor array for assessing pressure and shear at foot/ground interface. <i>Journal of Biomechanics</i> , 2006, 39, 2893-2897.	0.9	37

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37	Lower-extremity amputations in patients with diabetes: pre- and post-surgical decisions related to successful rehabilitation. <i>Diabetes/Metabolism Research and Reviews</i> , 2004, 20, S45-S50.	1.7	24
38	Realtime Visual Feedback Diminishes Energy Consumption of Amputee Subjects During Treadmill Locomotion. <i>Journal of Prosthetics and Orthotics</i> , 2004, 16, 49-54.	0.2	25
39	Novel Hyaluronic Acid Coating for Potential Use in Glucose Sensor Design. <i>Diabetes Technology and Therapeutics</i> , 2003, 5, 393-399.	2.4	24
40	Simultaneous measurement of plantar pressure and shear forces in diabetic individuals. <i>Gait and Posture</i> , 2002, 15, 101-107.	0.6	74
41	Quantifying muscle activity in non-ambulatory children with spastic cerebral palsy before and after selective dorsal rhizotomy. <i>Journal of Electromyography and Kinesiology</i> , 2001, 11, 31-37.	0.7	6
42	An extensometer for global measurement of bone strain suitable for use in vivo in humans. <i>Journal of Biomechanics</i> , 2001, 34, 385-391.	0.9	13
43	Characterization of the calcaneal fat pad in diabetic and non-diabetic patients using magnetic resonance imaging. <i>Magnetic Resonance Imaging</i> , 1999, 17, 851-857.	1.0	33
44	A biomechanical evaluation of one-stage vs two-stage bilateral knee arthroplasty patients. <i>Gait and Posture</i> , 1999, 9, 24-30.	0.6	24
45	A Device for Simultaneous Measurement of Pressure and Shear Force Distribution on the Plantar Surface of the Foot. <i>Journal of Applied Biomechanics</i> , 1998, 14, 93-104.	0.3	53
46	Effects of Age, Density, and Geometry on the Bending Strength of Human Metatarsals. <i>Foot and Ankle International</i> , 1997, 18, 216-221.	1.1	21
47	Modeling Effects of Muscle Fatigue on Unilateral Postural Control. <i>Journal of Applied Biomechanics</i> , 1996, 12, 173-184.	0.3	10
48	Frequency content of normal and diabetic plantar pressure profiles: Implications for the selection of transducer sizes. <i>Journal of Biomechanics</i> , 1996, 29, 979-983.	0.9	43
49	Decomposition of superimposed ground reaction forces into left and right force profiles. <i>Journal of Biomechanics</i> , 1993, 26, 593-597.	0.9	54
50	Phasic behavior of EMG signals during gait: Use of multivariate statistics. <i>Journal of Electromyography and Kinesiology</i> , 1993, 3, 51-60.	0.7	102
51	Footwear and Balance in Older Men. <i>Journal of the American Geriatrics Society</i> , 1993, 41, 1011-1012.	1.3	9
52	Design principles for a zero-gravity locomotion simulator. <i>Journal of Biomechanics</i> , 1989, 22, 998.	0.9	1
53	In search of the homunculus. <i>Journal of Biomechanics</i> , 1989, 22, 1093.	0.9	0