Yan Wang

List of Publications by Year
in descending order

82 papers	3,398 citations	159585 30 h-index	155660 55 g-index
82 all docs	82 docs citations	82 times ranked	2196 citing authors

#	Article	IF	Citations
1	Three-dimensional finite element analysis of the foot during standingâ€”a material sensitivity study. Journal of Biomechanics, 2005, 38, 1045-1054.	2.1	365
2	Effect of Achilles tendon loading on plantar fascia tension in the standing foot. Clinical Biomechanics, 2006, 21, 194-203.	1.2	193
3	A 3-dimensional finite element model of the human foot and ankle for insole design. Archives of Physical Medicine and Rehabilitation, 2005, 86, 353-358.	0.9	169
4	Parametric design of pressure-relieving foot orthosis using statistics-based finite element method. Medical Engineering and Physics, 2008, 30, 269-277.	1.7	156
5	Effects of plantar fascia stiffness on the biomechanical responses of the ankleâ€“foot complex. Clinical Biomechanics, 2004, 19, 839-846.	1.2	148
6	Wavelet analysis of cerebral oxygenation signal measured by near infrared spectroscopy in subjects with cerebral infarction. Microvascular Research, 2010, 80, 142-147.	2.5	132
7	Development of a finite element model of female foot for high-heeled shoe design. Clinical Biomechanics, 2008, 23, S31-S38.	1.2	115
8	Consequences of Partial and Total Plantar Fascia Release: A Finite Element Study. Foot and Ankle International, 2006, 27, 125-132.	2.3	98
9	Finite element modelling of a residual lower-limb in a prosthetic socket: a survey of the development in the first decade. Medical Engineering and Physics, 1998, 20, 360-373.	1.7	96
10	Wavelet coherence analysis of spontaneous oscillations in cerebral tissue oxyhemoglobin concentrations and arterial blood pressure in elderly subjects. Microvascular Research, 2014, 93, 14-20.	2.5	92
11	Wavelet coherence analysis of prefrontal oxygenation signals in elderly subjects with hypertension. Physiological Measurement, 2014, 35, 777-791.	2.1	80
12	Cerebral autoregulation in response to posture change in elderly subjects-assessment by wavelet phase coherence analysis of cerebral tissue oxyhemoglobin concentrations and arterial blood pressure signals. Behavioural Brain Research, 2015, 278, 330-336.	2.2	73
13	Computational Models of the Foot and Ankle for Pathomechanics and Clinical Applications: A Review. Annals of Biomedical Engineering, 2016, 44, 213-221.	2.5	68
14	Foot arch deformation and plantar fascia loading during running with rearfoot strike and forefoot strike: A dynamic finite element analysis. Journal of Biomechanics, 2019, 83, 260-272.	2.1	62
15	Age-Related Changes in Spontaneous Oscillations Assessed by Wavelet Transform of Cerebral Oxygenation and Arterial Blood Pressure Signals. Journal of Cerebral Blood Flow and Metabolism, 2013, 33, 692-699.	4.3	59
16	Finite Element Analysis of Foot and Ankle Impact Injury: Risk Evaluation of Calcaneus and Talus Fracture. PLoS ONE, 2016, 11, e0154435.	2.5	59
17	A Review of the Application of Additive Manufacturing in Prosthetic and Orthotic Clinics from a Biomechanical Perspective. Engineering, 2020, 6, 1258-1266.	6.7	56
18	Effects of Ankle Arthrodesis on Biomechanical Performance of the Entire Foot. PLoS ONE, 2015, 10, e0134340.	2.5	49

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19	Biomechanics of first ray hypermobility: An investigation on joint force during walking using finite element analysis. Medical Engineering and Physics, 2014, 36, 1388-1393.	1.7	46
20	Assessment of cerebral oxygenation during prolonged simulated driving using near infrared spectroscopy: its implications for fatigue development. European Journal of Applied Physiology, 2009, 107, 281-287.	2.5	45
21	Biomechanics of fencing sport: A scoping review. PLoS ONE, 2017, 12, e0171578.	2.5	43
22	Spectral analysis of nearâ€infrared spectroscopy signals measured from prefrontal lobe in subjects at risk for stroke. Medical Physics, 2012, 39, 2179-2185.	3.0	42
23	Finite element simulation on posterior tibial tendinopathy: Load transfer alteration and implications to the onset of pes planus. Clinical Biomechanics, 2018, 51, 10-16.	1.2	42
24	Biomechanical simulation of high-heeled shoe donning and walking. Journal of Biomechanics, 2013, 46, 2067-2074.	2.1	41
25	Functional restoration and risk of non-union of the first metatarsocuneiform arthrodesis for hallux valgus: A finite element approach. Journal of Biomechanics, 2015, 48, 3142-3148.	2.1	41
26	Finite element analysis of biomechanical effects of total ankle arthroplasty on the foot. Journal of Orthopaedic Translation, 2018, 12, 55-65.	3.9	40
27	Frequencyâ€specific functional connectivity revealed by waveletâ€based coherence analysis in elderly subjects with cerebral infarction using NIRS method. Medical Physics, 2015, 42, 5391-5403.	3.0	39
28	Posture-related changes in brain functional connectivity as assessed by wavelet phase coherence of NIRS signals in elderly subjects. Behavioural Brain Research, 2016, 312, 238-245.	2.2	38
29	The influence of high-heeled shoes on strain and tension force of the anterior talofibular ligament and plantar fascia during balanced standing and walking. Medical Engineering and Physics, 2016, 38, 1152-1156.	1.7	37
30	Tai Chi Chuan exercise related change in brain function as assessed by functional nearâ€“infrared spectroscopy. Scientific Reports, 2019, 9, 13198.	3.3	36
31	Functional connectivity analysis of distracted drivers based on the wavelet phase coherence of functional near-infrared spectroscopy signals. PLoS ONE, 2017, 12, e0188329.	2.5	35
32	Immediate Effects of Medially Posted Insoles on Lower Limb Joint Contact Forces in Adult Acquired Flatfoot: A Pilot Study. International Journal of Environmental Research and Public Health, 2020, 17, 2226.	2.6	34
33	Current methods in computer-aided engineering for footwear design. Footwear Science, 2009, 1, 31-46.	2.1	32
34	Age-related alterations in phase synchronization of oxyhemoglobin concentration changes in prefrontal tissues as measured by near-infrared spectroscopy signals. Microvascular Research, 2016, 103, 19-25.	2.5	32
35	Finite element analysis of locking plate and two types of intramedullary nails for treating mid-shaft clavicle fractures. Injury, 2016, 47, 1618-1623.	1.7	31
36	Biomechanical study of tarsometatarsal joint fusion using finite element analysis. Medical Engineering and Physics, 2014, 36, 1394-1400.	1.7	30

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37	Biomechanical response of the musculoskeletal system to whole body vibration using a seated driver model. International Journal of Industrial Ergonomics, 2015, 45, 91-97.	2.6	29
38	Biomechanical comparison of locking plate and crossing metallic and absorbable screws fixations for intra-articular calcaneal fractures. Science China Life Sciences, 2016, 59, 958-964.	4.9	28
39	Prediction on the plantar fascia strain offload upon Fascia taping and Low-Dye taping during running. Journal of Orthopaedic Translation, 2020, 20, 113-121.	3.9	27
40	The application of 3D-printed transparent facemask for facial scar management and its biomechanical rationale. Burns, 2018, 44, 453-461.	1.9	26
41	Sleeping mattress determinants and evaluation: a biomechanical review and critique. PeerJ, 2019, 7, e6364.	2.0	26
42	Finite Element Analysis of Generalized Ligament Laxity on the Deterioration of Hallux Valgus Deformity (Bunion). Frontiers in Bioengineering and Biotechnology, 2020, 8, 571192.	4.1	26
43	Influence of arch support heights on the internal foot mechanics of flatfoot during walking: A muscle-driven finite element analysis. Computers in Biology and Medicine, 2021, 132, 104355.	7.0	24
44	Effects of Sleep Deprivation on Phase Synchronization as Assessed by Wavelet Phase Coherence Analysis of Prefrontal Tissue Oxyhemoglobin Signals. PLoS ONE, 2017, 12, e0169279.	2.5	23
45	Assessment of cerebral oxygenation oscillations in subjects with hypertension. Microvascular Research, 2013, 88, 32-41.	2.5	20
46	Wavelet coherence analysis of prefrontal tissue oxyhaemoglobin signals as measured using near-infrared spectroscopy in elderly subjects with cerebral infarction. Microvascular Research, 2014, 95, 108-115.	2.5	20
47	Biomechanical comparison of modified Calcanail system with plating fixation in intra-articular calcaneal fracture: A finite element analysis. Medical Engineering and Physics, 2019, 70, 55-61.	1.7	20
48	Effect of pillow height on the biomechanics of the head-neck complex: investigation of the cranio-cervical pressure and cervical spine alignment. PeerJ, 2016, 4, e2397.	2.0	19
49	Biomechanical consequences of subtalar joint arthroereisis in treating posterior tibial tendon dysfunction: a theoretical analysis using finite element analysis. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 1525-1532.	1.6	19
50	An instrument for methodological quality assessment of single-subject finite element analysis used in computational orthopaedics. Medicine in Novel Technology and Devices, 2021, 11, 100067.	1.6	19
51	Ultrasound elastographic assessment of plantar fascia in runners using rearfoot strike and forefoot strike. Journal of Biomechanics, 2019, 89, 65-71.	2.1	18
52	Biomechanical analysis of minimally invasive crossing screw fixation for calcaneal fractures: Implications to early weight-bearing rehabilitation. Clinical Biomechanics, 2020, 80, 105143.	1.2	18
53	Changes in segment coordination variability and the impacts of the lower limb across running mileages in half marathons: Implications for running injuries. Journal of Sport and Health Science, 2022, 11, 67-74.	6.5	18
54	Effective Connectivity in Response to Posture Changes in Elderly Subjects as Assessed Using Functional Near-Infrared Spectroscopy. Frontiers in Human Neuroscience, 2018, 12, 98.	2.0	17

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55	Wavelet analysis of sacral tissue oxygenation oscillations by near-infrared spectroscopy in persons with spinal cord injury. Microvascular Research, 2011, 81, 81-87.	2.5	15
56	Correlation analysis between prefrontal oxygenation oscillations and cerebral artery hemodynamics in humans. Microvascular Research, 2011, 82, 304-310.	2.5	15
57	Lower limb muscle co-contraction and joint loading of flip-flops walking in male wearers. PLoS ONE, 2018, 13, e0193653.	2.5	15
58	Analysis of compression/release stabilized transfemoral prosthetic socket by finite element modelling method. Medical Engineering and Physics, 2020, 83, 123-129.	1.7	15
59	An in vitro and finite element study of load redistribution in the midfoot. Science China Life Sciences, 2014, 57, 1191-1196.	4.9	13
60	Total ankle arthroplasty and ankle arthrodesis affect the biomechanics of the inner foot differently. Scientific Reports, 2019, 9, 13334.	3.3	13
61	Different Design Feature Combinations of Flatfoot Orthosis on Plantar Fascia Strain and Plantar Pressure: A Muscle-Driven Finite Element Analysis With Taguchi Method. Frontiers in Bioengineering and Biotechnology, 2022, 10, 853085.	4.1	13
62	Finite element analysis of the valgus knee joint of an obese child. BioMedical Engineering OnLine, 2016, 15, 158.	2.7	12
63	Wavelet analysis of lumbar muscle oxygenation signals during whole-body vibration: implications for the development of localized muscle fatigue. European Journal of Applied Physiology, 2012, 112, 3109-3117.	2.5	11
64	Joint contact force and movement deceleration among badminton forward lunges: a musculoskeletal modelling study. Sports Biomechanics, 2022, 21, 1249-1261.	1.6	11
65	Fracture mapping of complex intra-articular calcaneal fractures. Annals of Translational Medicine, 2021, 9, 333-333.	1.7	11
66	A Three-Dimensional Printed Foot Orthosis for Flexible Flatfoot: An Exploratory Biomechanical Study on Arch Support Reinforcement and Undercut. Materials, 2021, 14, 5297.	2.9	11
67	Biomechanical comparison among five mid/hindfoot arthrodeses procedures in treating flatfoot using a musculoskeletal multibody driven finite element model. Computer Methods and Programs in Biomedicine, 2021, 211, 106408.	4.7	11
68	Finite element analysis of subtalar joint arthroereisis on adult-acquired flexible flatfoot deformity using customised sinus tarsi implant. Journal of Orthopaedic Translation, 2021, 27, 139-145.	3.9	10
69	Computational models of flatfoot with three-dimensional fascia and bulk soft tissue interaction for orthosis design. Medicine in Novel Technology and Devices, 2021, 9, 100050.	1.6	9
70	Spectral analysis of cerebral oxygenation responses to seated whole-body vibration in healthy men. International Journal of Industrial Ergonomics, 2012, 42, 341-346.	2.6	8
71	Identifying Fatigue Indicators Using Gait Variability Measures: A Longitudinal Study on Elderly Brisk Walking. Sensors, 2020, 20, 6983.	3.8	8
72	Effect of Dropping Height on the Forces of Lower Extremity Joints and Muscles during Landing: A Musculoskeletal Modeling. Journal of Healthcare Engineering, 2018, 2018, 1-8.	1.9	7

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73	Exercise-Induced Hemodynamic Changes in Muscle Tissue: Implication of Muscle Fatigue. Applied Sciences (Switzerland), 2020, 10, 3512.	2.5	7
74	Effects of Upper-Limb, Lower-Limb, and Full-Body Compression Garments on Full Body Kinematics and Free-Throw Accuracy in Basketball Players. Applied Sciences (Switzerland), 2020, 10, 3504.	2.5	7
75	Extrinsic foot muscle forces and joint contact forces in flexible flatfoot adult with foot orthosis: A parametric study of tibialis posterior muscle weakness. Gait and Posture, 2021, 88, 54-59.	1.4	7
76	Plantar Pressure Variability and Asymmetry in Elderly Performing 60-Minute Treadmill Brisk-Walking: Paving the Way towards Fatigue-Induced Instability Assessment Using Wearable In-Shoe Pressure Sensors. Sensors, 2021, 21, 3217.	3.8	5
77	Biomechanical Analysis of a Novel Double-Point Fixation Method for Displaced Intra-Articular Calcaneal Fractures. Frontiers in Bioengineering and Biotechnology, 2022, 10, 791554.	4.1	4
78	Spectral Analysis of Muscle Hemodynamic Responses in Post-Exercise Recovery Based on Near-Infrared Spectroscopy. Sensors, 2021, 21, 3072.	3.8	3
79	Effects of Attrition Shoes on Kinematics and Kinetics of Lower Limb Joints During Walking. Frontiers in Bioengineering and Biotechnology, 2022, 10, 824297.	4.1	3
80	Non-amputated limb muscle coordination of unilateral transfemoral amputees. Journal of Biomechanics, 2021, 115, 110155.	2.1	2
81	A half marathon shifts the mediolateral force distribution at the tibiofemoral joint. European Journal of Sport Science, 2022, 22, 1017-1024.	2.7	1
82	Notice of Retraction: Assessment of Sacral Tissue Oxygenation Oscillations in Persons with Spinal Cord Injury. , 2011, , .		0