

Xuguang Wang

List of Publications by Year in descending order

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74
papers

4,074
citations

567281

15
h-index

214800

47
g-index

75
all docs

75
docs citations

75
times ranked

3219
citing authors

#	ARTICLE	IF	CITATIONS
1	ISB recommendation on definitions of joint coordinate systems of various joints for the reporting of human joint motion—Part II: shoulder, elbow, wrist and hand. Journal of Biomechanics, 2005, 38, 981-992.	2.1	3,077
2	Effects of age and gender on maximum voluntary range of motion of the upper body joints. Ergonomics, 2006, 49, 269-281.	2.1	96
3	A behavior-based inverse kinematics algorithm to predict arm prehension postures for computer-aided ergonomic evaluation. Journal of Biomechanics, 1999, 32, 453-460.	2.1	90
4	Three-dimensional kinematic analysis of influence of hand orientation and joint limits on the control of arm postures and movements. Biological Cybernetics, 1999, 80, 449-463.	1.3	57
5	Three-dimensional modelling of the motion range of axial rotation of the upper arm. Journal of Biomechanics, 1998, 31, 899-908.	2.1	55
6	A geometric algorithm to predict the arm reach posture for computer-aided ergonomic evaluation. Computer Animation and Virtual Worlds, 1998, 9, 33-47.	0.9	55
7	Comparison of global and joint-to-joint methods for estimating the hip joint load and the muscle forces during walking. Journal of Biomechanics, 2009, 42, 2357-2362.	2.1	41
8	Biomechanical evaluation of the comfort of automobile clutch pedal operation. International Journal of Industrial Ergonomics, 2004, 34, 209-221.	2.6	38
9	Discomfort Assessment of Car Ingress/Egress Motions using the Concept of Neutral Movement. , 2005, , .		34
10	A 3D reconstruction method of the body envelope from biplanar X-rays: Evaluation of its accuracy and reliability. Journal of Biomechanics, 2015, 48, 4322-4326.	2.1	29
11	Car egress analysis of younger and older drivers for motion simulation. Applied Ergonomics, 2010, 42, 169-177.	3.1	25
12	Finite element models of the thigh-buttock complex for assessing static sitting discomfort and pressure sore risk: a literature review. Computer Methods in Biomechanics and Biomedical Engineering, 2018, 21, 379-388.	1.6	23
13	Experimental investigation and biomechanical analysis of lower limb movements for clutch pedal operation. Ergonomics, 2000, 43, 1405-1429.	2.1	22
14	Effects of Age, Gender, and Target Location on Seated Reach Capacity and Posture. Human Factors, 2008, 50, 211-226.	3.5	22
15	A 25 Degrees of Freedom Hand Geometrical Model for Better Hand Attitude Simulation. , 2004, , .		21
16	Methods for determining hip and lumbosacral joint centers in a seated position from external anatomical landmarks. Journal of Biomechanics, 2015, 48, 396-400.	2.1	19
17	A Motion Simulation Approach Integrated into a Design Engineering Process. , 2006, , .		18
18	Three-Dimensional Rotations of the Scapula During Arm Abduction: Evaluation of the Acromion Marker Cluster Method in Comparison With a Model-Based Approach Using Biplanar Radiograph Images. Journal of Applied Biomechanics, 2015, 31, 396-402.	0.8	17

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19	Simulation of Complex and Specific Task-Orientated Movements - Application to the Automotive Seat Belt Reaching. , 0, , .		16
20	Validation of a Model-based Motion Reconstruction Method Developed in the REALMAN Project. , 2005, , .		16
21	Effects of seat parameters and sittersâ€™ anthropometric dimensions on seat profile and optimal compressed seat pan surface. Applied Ergonomics, 2018, 73, 13-21.	3.1	16
22	An Experimental Investigation of the Discomfort of Arm Reaching Movements in a Seated Position. , 0, , .		15
23	Dynamic Analysis of Car Ingress/Egress Movement: an Experimental Protocol and Preliminary Results. SAE International Journal of Passenger Cars - Mechanical Systems, 2009, 2, 1633-1640.	0.4	14
24	A New Multi-Adjustable Experimental Seat for Investigating Biomechanical Factors of Sitting Discomfort. , 2017, , .		14
25	Effects of Anthropometric Variables and Seat Height on Automobile Driversâ€™ Preferred Posture With the Presence of the Clutch. Human Factors, 2018, 60, 172-190.	3.5	14
26	A parametric investigation on seat/occupant contact forces and their relationship with initially perceived discomfort using a configurable seat. Ergonomics, 2019, 62, 891-902.	2.1	14
27	A principal component analysis of the relationship between the external body shape and internal skeleton for the upper body. Journal of Biomechanics, 2016, 49, 3415-3422.	2.1	13
28	Ranges of the least uncomfortable joint angles for assessing automotive driving posture. Applied Ergonomics, 2017, 61, 12-21.	3.1	13
29	Effects of target location, stature and hand grip type on in-vehicle reach discomfort. Ergonomics, 2011, 54, 466-476.	2.1	12
30	An experimental investigation on the requirement of roof height and sill width for car ingress and egress. Ergonomics, 2012, 55, 1596-1611.	2.1	12
31	Exploration of Driver Posture Monitoring Using Pressure Sensors with Lower Resolution. Sensors, 2021, 21, 3346.	3.8	12
32	Effects of seat pan and pelvis angles on the occupant response in a reclined position during a frontal crash. PLoS ONE, 2021, 16, e0257292.	2.5	11
33	A Database of Ingress / Egress Motions of Elderly People. , 2007, , .		10
34	A comparison of clutching movements of freely adjusted and imposed pedal configurations for identifying discomfort assessment criteria. Applied Ergonomics, 2014, 45, 1010-1018.	3.1	10
35	From Motion Capture to Motion Simulation: An In-vehicle Reach Motion Database for Car Design. , 0, , .		8
36	Driver posture monitoring in highly automated vehicles using pressure measurement. Traffic Injury Prevention, 2021, 22, 278-283.	1.4	8

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37	Robust Human Motion Reconstruction in the Presence of Missing Markers and the Absence of Markers for Some Body Segments. , 2006, , .		7
38	Inverse Dynamic Reconstruction of Truck Cabin Ingress/Egress Motions. SAE International Journal of Passenger Cars - Mechanical Systems, 2009, 2, 1593-1599.	0.4	7
39	Pelvis and femur shape prediction using principal component analysis for body model on seat comfort assessment. Impact on the prediction of the used palpable anatomical landmarks as predictors. PLoS ONE, 2019, 14, e0221201.	2.5	7
40	A Data-Based Modeling Approach of Reach Capacity and Discomfort for Digital Human Models. Lecture Notes in Computer Science, 2007, , 215-223.	1.3	7
41	Coordination of Spine Degrees of Freedom during a Motion Reconstruction Process. , 2007, , .		6
42	A 3D analysis of the joint torques developed during driver's ingress&egress motion. Ergonomics, 2014, 57, 1008-1020.	2.1	6
43	Biomechanical human models for seating discomfort assessment. , 2019, , 643-656.		6
44	An experimental investigation on push force and its perception during a flexible hose insertion task encountered in a truck assembly line. Ergonomics, 2014, 57, 1416-1426.	2.1	5
45	An assessment of the realism of digital human manikins used for simulation in ergonomics. Ergonomics, 2015, 58, 1897-1909.	2.1	5
46	Can Computationally Predicted Internal Loads Be Used to Assess Sitting Discomfort? Preliminary Results. Advances in Intelligent Systems and Computing, 2019, , 447-456.	0.6	5
47	Age and gender effects on joint ranges of motion of the main joints involved in car accessibility movements. Computer Methods in Biomechanics and Biomedical Engineering, 2007, 10, 177-178.	1.6	4
48	Estimation of the Muscle Efforts of the Lower Limb during a Clutch Pedal Operation. , 2007, , .		4
49	Dynamics of sit-to-stand motions: effect of seat height, handle use and asymmetrical motions. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 191-192.	1.6	4
50	Determination of the Optimal Seat Profile Parameters for an Airplane Eco-class Passenger Seat. , 0, , .		4
51	Experimental Investigation and Modeling of Driver's Frontal Pre-crash Postural Anticipation. , 2005, , .		3
52	Prediction of In-Vehicle Reach Surfaces and Discomfort by Digital Human Models. , 2008, , .		3
53	Effects of rotation amplitude on arm movement when rotating a spherical object. Ergonomics, 2012, 55, 1524-1534.	2.1	3
54	Estimation of hip joint center from the external body shape: a preliminary study. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 2018-2019.	1.6	3

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55	A Biomechanical Approach for Evaluating Motion Related Discomfort : Illustration by an Application to Pedal Clutching Movement. Lecture Notes in Computer Science, 2011, , 210-219.	1.3	3
56	Comparing hip joint centre location methods in an automotive driving position. International Journal of Human Factors Modelling and Simulation, 2012, 3, 294.	0.2	2
57	Objective and subjective evaluation of a new airplane seat with an optimally pre-shaped foam support. Work, 2021, 68, S257-S271.	1.1	2
58	Does Preferred Seat Pan Inclination Minimize Shear Force?. Advances in Intelligent Systems and Computing, 2019, , 290-295.	0.6	2
59	Hip joint centre location from anatomical landmarks for automotive seated posture reconstruction. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 195-197.	1.6	1
60	Constructing meaningful numerical response when evaluating (dis)comfort perception in a univariate case. Theoretical Issues in Ergonomics Science, 2013, 14, 138-158.	1.8	1
61	In-Vehicle Driving Posture Reconstruction from 3D Scanning Data Using a 3D Digital Human Modeling Tool. , 0, , .		1
62	A Preliminary Study on the Effects of Foam and Seat Pan Inclination on the Deformation of the Seated Buttocks Using MRI. Lecture Notes in Networks and Systems, 2022, , 434-438.	0.7	1
63	An Experimental Investigation of Preferred Seat Pressure Distribution. Advances in Intelligent Systems and Computing, 2021, , 330-335.	0.6	1
64	Problems Encountered in Seated Arm Reach Posture Reconstruction: Need for a More Realistic Spine and Upper Limb Kinematic Model. Lecture Notes in Computer Science, 2009, , 160-169.	1.3	1
65	An Introduction to the Special Issue on <i>Digital Human Modeling (DHM) in Ergonomics 4.0</i>. IJSE Transactions on Occupational Ergonomics and Human Factors, 2021, 9, 107-110.	0.8	1
66	A Case Study on the Effects of Foam and Seat Pan Inclination on the Deformation of Seated Buttocks Using MRI. IJSE Transactions on Occupational Ergonomics and Human Factors, 2021, 9, 23-32.	0.8	1
67	Ergonomic Evaluation of a Crane Cabin Using a Computerized Human Model. , 2000, , .		0
68	Méthodes et outils pour la biomécanique / Methods and Coah for Biomechanics. Archives of Physiology and Biochemistry, 2002, 110, 61-67.	2.1	0
69	Motion Conversion between Digital Human Models A Case Study from Ramsis to Man3D. , 2004, , .		0
70	An Approach to Record Human Hand Movement which Combines Two Complementary Measurement Systems: A Data Glove and a Motion Analysis System. , 2006, , .		0
71	A preliminary study on the realism of digital human manikins used for ergonomics simulation. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 164-165.	1.6	0
72	Maximal isometric force exertion predicted by the force feasible set formalism: application to handbraking. Ergonomics, 2019, 62, 1551-1562.	2.1	0

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73	Evaluation of a modelling workflow to obtain subject specific spine geometry for sitting postures. International Journal of Human Factors Modelling and Simulation, 2019, 7, 87.	0.2	0
74	An Introduction to the Special Issue on .. IISE Transactions on Occupational Ergonomics and Human Factors, 2021, 9, 107-110.	0.8	0