

Gary A Mirka

List of Publications by Year in descending order

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112
papers

2,403
citations

218381

26
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114
all docs

114
docs citations

114
times ranked

1372
citing authors

#	ARTICLE	IF	CITATIONS
1	Exploring the relationship between neck flexion and neck problems in occupational populations: a systematic review of the literature. <i>Ergonomics</i> , 2022, 65, 587-603.	1.1	6
2	Effects of passive exoskeleton support on EMG measures of the neck, shoulder and trunk muscles while holding simulated surgical postures and performing a simulated surgical procedure. <i>Applied Ergonomics</i> , 2022, 100, 103646.	1.7	25
3	Development of a Test Battery for Fatigue Assessment of Agriculture Seating Systems: A Laboratory and Field Study. <i>Journal of Agromedicine</i> , 2022, , 1-13.	0.9	1
4	Development and Assessment of a Method to Estimate the Value of a Maximum Voluntary Isometric Contraction Electromyogram from Submaximal Electromyographic Data. <i>Journal of Applied Biomechanics</i> , 2022, 38, 76-83.	0.3	2
5	Effects of break scheduling strategies on subjective and objective measures of neck and shoulder muscle fatigue in asymptomatic adults performing a standing task requiring static neck flexion. <i>Applied Ergonomics</i> , 2021, 92, 103311.	1.7	6
6	Trunk kinematic variability as a function of time during the early phase of a repetitive lifting task. <i>Human Factors and Ergonomics in Manufacturing</i> , 2021, 31, 291-299.	1.4	1
7	Inter-individual variability in a repetitive lifting task. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2021, 65, 833-837.	0.2	1
8	Impact of a Neck Strap Intervention on Perceived Effort, Thumb Force, and Muscle Activity of Clarinetists. <i>Medical Problems of Performing Artists</i> , 2021, 36, 225-232.	0.2	1
9	The effects of repetitive bouts of a fatiguing exertion (with breaks) on the slope of EMG measures of localized muscle fatigue. <i>Journal of Electromyography and Kinesiology</i> , 2020, 51, 102382.	0.7	8
10	Technical note: Using Johnson distributions to model trunk kinematics. <i>Theoretical Issues in Ergonomics Science</i> , 2020, , 1-12.	1.0	0
11	Effect of surgical radiation personal protective equipment on EMG-based measures of back and shoulder muscle fatigue: A laboratory study of novices. <i>Applied Ergonomics</i> , 2020, 84, 103029.	1.7	12
12	The effects of load weight and load starting height on variability of lifting kinematics and kinetics. <i>International Journal of Industrial Ergonomics</i> , 2019, 73, 102830.	1.5	6
13	Effect of Time on the Variability of Lifting Kinematics in a Repetitive Lifting Task. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2018, 62, 910-914.	0.2	2
14	Effect of Load Weight and Starting Height on the Variability of Trunk Kinematics. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2018, 62, 905-909.	0.2	3
15	Combined effect of low back muscle fatigue and passive tissue elongation on the flexion-relaxation response. <i>Applied Ergonomics</i> , 2017, 63, 72-78.	1.7	3
16	A systems-level perspective of the biomechanics of the trunk flexion-extension movement: Part II "Fatigued low back conditions. <i>International Journal of Industrial Ergonomics</i> , 2015, 46, 1-6.	1.5	7
17	A systems-level perspective of the biomechanics of the trunk flexion-extension movement: Part I "Normal low back condition. <i>International Journal of Industrial Ergonomics</i> , 2015, 46, 7-11.	1.5	13
18	Trunk muscle fatigue and its implications in EMG-assisted biomechanical modeling. <i>International Journal of Industrial Ergonomics</i> , 2013, 43, 425-429.	1.5	13

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19	Medial knee joint loading during stair ambulation and walking while carrying loads. <i>Gait and Posture</i> , 2013, 37, 460-462.	0.6	16
20	An algorithm for defining the onset and cessation of the flexion-relaxation phenomenon in the low back musculature. <i>Journal of Electromyography and Kinesiology</i> , 2012, 22, 376-382.	0.7	36
21	Describing the active region boundary of EMG-assisted biomechanical models of the low back. <i>Clinical Biomechanics</i> , 2012, 27, 422-427.	0.5	29
22	Influence of asymmetry on the flexion relaxation response of the low back musculature. <i>Clinical Biomechanics</i> , 2011, 26, 35-39.	0.5	41
23	Ergonomic interventions for commercial crab fishermen. <i>International Journal of Industrial Ergonomics</i> , 2011, 41, 481-487.	1.5	16
24	The effect of stance width on trunk kinematics and trunk kinetics during sagittally asymmetric lifting. <i>International Journal of Industrial Ergonomics</i> , 2011, 41, 147-152.	1.5	17
25	The effect of a lower extremity kinematic constraint on lifting biomechanics. <i>Applied Ergonomics</i> , 2011, 42, 867-872.	1.7	5
26	Medial Longitudinal Arch Deformation during Walking and Stair Navigation While Carrying Loads. <i>Foot and Ankle International</i> , 2011, 32, 623-629.	1.1	12
27	The effect of sinusoidal rolling ground motion on lifting biomechanics. <i>Applied Ergonomics</i> , 2010, 42, 131-137.	1.7	19
28	Lifting Kinematics and Kinetics during Simulated Boat Motions. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2010, 54, 1178-1181.	0.2	0
29	Hand-hold location and trunk kinematics during box handling. <i>Ergonomics</i> , 2010, 53, 1033-1038.	1.1	5
30	The effects of horizontal load speed and lifting frequency on lifting technique and biomechanics. <i>Ergonomics</i> , 2010, 53, 1024-1032.	1.1	8
31	Analysis of Alternative Keyboards Using Learning Curves. <i>Human Factors</i> , 2009, 51, 35-45.	2.1	17
32	Ergonomic risk factors for low back pain in North Carolina crab pot and gill net commercial fishermen. <i>American Journal of Industrial Medicine</i> , 2009, 52, 311-321.	1.0	42
33	Biomechanical evaluation of postures assumed when harvesting from bush crops. <i>International Journal of Industrial Ergonomics</i> , 2009, 39, 347-352.	1.5	23
34	An evaluation of arborist handsaws. <i>Applied Ergonomics</i> , 2009, 40, 8-14.	1.7	10
35	The effects of a suspended-load backpack on gait. <i>Gait and Posture</i> , 2009, 29, 151-153.	0.6	24
36	College students and computers: Assessment of usage patterns and musculoskeletal discomfort. <i>Work</i> , 2009, 32, 285-298.	0.6	35

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37	Coordination indices between lifting kinematics and kinetics. International Journal of Industrial Ergonomics, 2008, 38, 1062-1066.	1.5	1
38	The effects of obesity on lifting performance. Applied Ergonomics, 2008, 39, 93-98.	1.7	51
39	Evaluating Ergonomic Stresses in North Carolina Commercial Crab Pot and Gill Net Fishermen. Journal of Occupational and Environmental Hygiene, 2008, 5, 182-196.	0.4	16
40	Application of an Entropy-Assisted Optimization Model in Prediction of Agonist and Antagonist Muscle Forces. Proceedings of the Human Factors and Ergonomics Society, 2007, 51, 923-927.	0.2	4
41	A biomechanical analysis of anterior load carriage. Ergonomics, 2007, 50, 2104-2117.	1.1	46
42	The Effect of a Knee Support on the Biomechanical Response of the Low Back. Journal of Applied Biomechanics, 2007, 23, 275-281.	0.3	2
43	An in vivo assessment of the low back response to prolonged flexion: Interplay between active and passive tissues. Clinical Biomechanics, 2007, 22, 965-971.	0.5	85
44	Ergonomic interventions for the reduction of back and shoulder biomechanical loading when weighing calves. International Journal of Industrial Ergonomics, 2007, 37, 103-110.	1.5	14
45	An evaluation of backpack harness systems in non-neutral torso postures. Applied Ergonomics, 2007, 38, 541-547.	1.7	20
46	Learning curve analysis of a patient lift-assist device. Applied Ergonomics, 2007, 38, 765-771.	1.7	10
47	Low-level exertions of the neck musculature: A study of research methods. Journal of Electromyography and Kinesiology, 2006, 16, 485-497.	0.7	30
48	A Laboratory Study of the Effects of Wrist Splint Orthoses on Forearm Muscle Activity and Upper Extremity Posture. Human Factors, 2006, 48, 499-510.	2.1	9
49	Differences in trunk kinematics and ground reaction forces between older and younger adults during lifting. International Journal of Industrial Ergonomics, 2006, 36, 767-772.	1.5	20
50	Effects of age on muscle activity and upper body kinematics during a repetitive forearm supination task. International Journal of Industrial Ergonomics, 2006, 36, 951-957.	1.5	5
51	An Adaptive System Identification Model of the Biomechanical Response of the Human Trunk During Sudden Loading. Journal of Biomechanical Engineering, 2006, 128, 235-241.	0.6	8
52	Evaluation of a Redesigned Self-Checkout Station for Wheelchair Users. Assistive Technology, 2006, 18, 15-24.	1.2	10
53	The Effect of a Repetitive, Fatiguing Lifting Task on Horizontal Ground Reaction Forces. Journal of Applied Biomechanics, 2005, 21, 260-270.	0.3	6
54	Use of the CABS methodology to assess biomechanical stress in commercial crab fishermen. Applied Ergonomics, 2005, 36, 61-70.	1.7	19

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55	Development of an ergonomics guideline for the furniture manufacturing industry. Applied Ergonomics, 2005, 36, 241-247.	1.7	14
56	A laboratory investigation of personality type and break-taking behavior. International Journal of Industrial Ergonomics, 2005, 35, 237-246.	1.5	4
57	Adaptive system identification applied to the biomechanical response of the human trunk during sudden loading. Journal of Biomechanics, 2005, 38, 2472-2479.	0.9	13
58	The Effects of Fatigue from Repeated Trunk Extensions on Trunk Muscle Activity. Proceedings of the Human Factors and Ergonomics Society, 2005, 49, 1315-1319.	0.2	0
59	Differences in Trunk Kinematics and Ground Reaction Forces Between Older and Younger Adults during Lifting. Proceedings of the Human Factors and Ergonomics Society, 2005, 49, 177-181.	0.2	1
60	Viscoelastic Responses of the Lumbar Spine during Prolonged Stooping. Proceedings of the Human Factors and Ergonomics Society, 2005, 49, 1269-1273.	0.2	7
61	A study of lifting tasks performed on laterally slanted ground surfaces. Ergonomics, 2005, 48, 782-795.	1.1	19
62	Assessing the Effects of Positive Feedback and Reinforcement in the Introduction Phase of an Ergonomic Intervention. Human Factors, 2005, 47, 526-535.	2.1	5
63	Lifting Performed on Laterally Slanted Ground Surfaces. Proceedings of the Human Factors and Ergonomics Society, 2005, 49, 1325-1329.	0.2	0
64	Application of Universal Design Principles in the Design of a Self-Checkout System. Proceedings of the Human Factors and Ergonomics Society, 2004, 48, 1111-1115.	0.2	0
65	Productivity and Ergonomic Investigation of Bent-Handle Pliers. Human Factors, 2004, 46, 234-243.	2.1	6
66	The effects of a sloped ground surface on trunk kinematics and L5/S1 moment during lifting. Ergonomics, 2004, 47, 646-659.	1.1	34
67	Cervicobrachial muscle response to cognitive load in a dual-task scenario. Ergonomics, 2004, 47, 625-645.	1.1	38
68	Influence of knee angle and individual flexibility on the flexion-relaxation response of the low back musculature. Journal of Electromyography and Kinesiology, 2004, 14, 485-494.	0.7	60
69	Ergonomic interventions for the reduction of low back stress in framing carpenters in the home building industry. International Journal of Industrial Ergonomics, 2003, 31, 397-409.	1.5	22
70	The Effects of Personality Type and Stress on Muscle Activity during Simulated Work Tasks. Proceedings of the Human Factors and Ergonomics Society, 2003, 47, 1159-1163.	0.2	0
71	The Effect of Personality Type on Assembly Time and Wrist Kinematics during a Laboratory Task. Proceedings of the Human Factors and Ergonomics Society, 2002, 46, 1105-1109.	0.2	1
72	Nonlinear System Identification Applied to the Biomechanical Response of the Human Trunk during Sudden Loading. Proceedings of the Human Factors and Ergonomics Society, 2002, 46, 1076-1080.	0.2	0

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73	Use of the Cabs Methodology to Assess Biomechanical Stress in Commercial Crab Fishermen. Proceedings of the Human Factors and Ergonomics Society, 2002, 46, 1152-1156.	0.2	0
74	Effect of Grip Span on Lateral Pinch Grip Strength. Human Factors, 2002, 44, 569-577.	2.1	31
75	Ergonomic interventions for the furniture manufacturing industry. Part I—lift assist devices. International Journal of Industrial Ergonomics, 2002, 29, 263-273.	1.5	21
76	Ergonomic interventions for the furniture manufacturing industry. Part II—Handtools. International Journal of Industrial Ergonomics, 2002, 29, 275-287.	1.5	28
77	An investigation of ergonomic interventions in dental hygiene work. Applied Ergonomics, 2002, 33, 175-184.	1.7	32
78	Technical Note: The use of mirrors during an assembly task: a study of ergonomics and productivity. Ergonomics, 2001, 44, 215-228.	1.1	21
79	A field evaluation of monitor placement effects in VDT users. Applied Ergonomics, 2001, 32, 313-325.	1.7	72
80	The Influence of Head, Forearm and Back Support on Myoelectric Activity, Performance and Subjective Comfort during a VDT Task. Proceedings of the Human Factors and Ergonomics Society, 2001, 45, 1082-1086.	0.2	2
81	Assessing the Relationship between Cognitive Load and Cervicobrachial Muscle Response during a Typing Task. Proceedings of the Human Factors and Ergonomics Society, 2001, 45, 1092-1096.	0.2	1
82	Human Modeling and Simulation: Establishing Parameters for an Adjustable Notebook Computer Display. Proceedings of the Human Factors and Ergonomics Society, 2001, 45, 682-686.	0.2	0
83	Ergonomic Interventions for the Home Building Industry. Proceedings of the Human Factors and Ergonomics Society, 2000, 44, 5-703-5-706.	0.2	1
84	Transverse-Contour Modeling of Trunk Muscles—Distributed Forces and Spinal Loads During Lifting and Twisting. Spine, 2000, 25, 180.	1.0	28
85	Effects of semi-rigid arch-support orthotics: an investigation with potential ergonomic implications. Applied Ergonomics, 2000, 31, 515-522.	1.7	14
86	An empirical approach to characterizing trunk muscle coactivation using simulation input modeling techniques. Journal of Biomechanics, 2000, 33, 1701-1704.	0.9	8
87	Predicting Trunk Kinematics Using Static Task Parameters. Proceedings of the Human Factors and Ergonomics Society, 2000, 44, 158-161.	0.2	0
88	Continuous Assessment of Back Stress (CABS): A New Method to Quantify Low-Back Stress in Jobs with Variable Biomechanical Demands. Human Factors, 2000, 42, 209-225.	2.1	39
89	The Use of Mirrors during an Assembly Task: A Study of Ergonomics and Productivity. Proceedings of the Human Factors and Ergonomics Society, 2000, 44, 189-192.	0.2	3
90	Ergonomic Hand tool Interventions for the Furniture Manufacturing Industry. Proceedings of the Human Factors and Ergonomics Society, 2000, 44, 5-99-5-102.	0.2	1

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91	The Effect of Personality Type on Muscle Coactivation during Elbow Flexion. Human Factors, 1999, 41, 51-60.	2.1	22
92	The effects of video display terminal height on the operator: a comparison of the 15° and 40° recommendations. Applied Ergonomics, 1998, 29, 239-246.	1.7	142
93	Assessing Low Back Stress in the Construction Industry Using the Continuous Assessment of Back Stress (CABS) Method. Proceedings of the Human Factors and Ergonomics Society, 1998, 42, 886-890.	0.2	1
94	The Effects of VDT Location on User Posture and Comfort: A Field Study. Proceedings of the Human Factors and Ergonomics Society, 1998, 42, 871-875.	0.2	4
95	The interaction between load and coupling during dynamic manual materials handling tasks. Occupational Ergonomics, 1998, 1, 3-11.	0.3	12
96	Selective activation of the external oblique musculature during axial torque production. Clinical Biomechanics, 1997, 12, 172-180.	0.5	41
97	Intra-abdominal pressure during trunk extension motions. Clinical Biomechanics, 1996, 11, 267-274.	0.5	46
98	An Investigation of the Variability in Human Performance during Sagittally Symmetric Lifting Tasks. IIE Transactions, 1996, 28, 745-752.	2.1	17
99	The Use of the Multivariate Johnson Distributions to Model Trunk Muscle Coactivation. Proceedings of the Human Factors and Ergonomics Society, 1996, 40, 584-588.	0.2	0
100	Multivariate input modeling with Johnson distributions. , 1996, , .		24
101	The Effects of Lifting Frequency on the Dynamics of Lifting. Proceedings of the Human Factors and Ergonomics Society, 1995, 39, 650-654.	0.2	1
102	Selective Activation of the External Obliques during Twisting. Proceedings of the Human Factors and Ergonomics Society, 1995, 39, 610-614.	0.2	0
103	A Study of the Interaction between Load and Coupling during Lifting. Proceedings of the Human Factors and Ergonomics Society, 1994, 38, 644-648.	0.2	2
104	Electromyographic studies of the lumbar trunk musculature during the generation of low-level trunk acceleration. Journal of Orthopaedic Research, 1993, 11, 811-817.	1.2	74
105	A Stochastic Model of Trunk Muscle Coactivation During Trunk Bending. Spine, 1993, 18, 1396-1409.	1.0	184
106	A Comprehensive Evaluation of Trunk Response to Asymmetric Trunk Motion. Spine, 1992, 17, 318-326.	1.0	125
107	The quantification of EMG normalization error. Ergonomics, 1991, 34, 343-352.	1.1	179
108	Muscle activities during asymmetric trunk angular accelerations. Journal of Orthopaedic Research, 1990, 8, 824-832.	1.2	82

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109	Lumbar Motion Response to a Constant Load Velocity Lift. Human Factors, 1990, 32, 493-501.	2.1	8
110	The Effects of Preview and Task Symmetry on Trunk Muscle Response to Sudden Loading. Human Factors, 1989, 31, 101-115.	2.1	88
111	Effects of Fatigue on Muscle Groups under Dynamic Exertions. Proceedings of the Human Factors Society Annual Meeting, 1989, 33, 646-650.	0.1	0
112	The Effects of Asymmetry, Load Level, Start Position and Load Velocity on Lumbar Motion. Proceedings of the Human Factors Society Annual Meeting, 1988, 32, 700-704.	0.1	1