Mark L Latash

List of Publications by Year
in descending order

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413 papers	19,597 citations	12328 69 h-index	20358 116 g-index
420 all docs	420 docs citations	420 times ranked	6179 citing authors

#	Article	IF	Citations
1	Intrathecal Baclofen for Severe Spinal Spasticity. New England Journal of Medicine, 1989, 320, 1517-1521.	27.0	695
2	Motor Control Strategies Revealed in the Structure of Motor Variability. Exercise and Sport Sciences Reviews, 2002, 30, 26-31.	3.0	646
3	Toward a New Theory of Motor Synergies. Motor Control, 2007, 11, 276-308.	0.6	621
4	The bliss (not the problem) of motor abundance (not redundancy). Experimental Brain Research, 2012, 217, 1-5.	1.5	430
5	Joint stiffness: Myth or reality?. Human Movement Science, 1993, 12, 653-692.	1.4	390
6	Enslaving effects in multi-finger force production. Experimental Brain Research, 2000, 131, 187-195.	1.5	361
7	What are â€œnormal movementsâ€•in atypical populations?. Behavioral and Brain Sciences, 1996, 19, 55-68.	0.7	318
8	Identifying the control structure of multijoint coordination during pistol shooting. Experimental Brain Research, 2000, 135, 382-404.	1.5	308
9	Structure of motor variability in marginally redundant multifinger force production tasks. Experimental Brain Research, 2001, 141, 153-165.	1.5	256
10	Motor Synergies and the Equilibrium-Point Hypothesis. Motor Control, 2010, 14, 294-322.	0.6	255
11	On the Problem of Adequate Language in Motor Control. Motor Control, 1998, 2, 306-313.	0.6	239
12	Muscle synergies during shifts of the center of pressure by standing persons. Experimental Brain Research, 2003, 152, 281-292.	1.5	238
13	Coordinated force production in multi-finger tasks: finger interaction and neural network modeling. Biological Cybernetics, 1998, 79, 139-150.	1.3	232
14	Electromechanical delay: An experimental artifact. Journal of Electromyography and Kinesiology, 1992, 2, 59-68.	1.7	201
15	Interaction of Afferent and Efferent Signals Underlying Joint Position Sense. Journal of Motor Behavior, 1982, 14, 174-193.	0.9	187
16	Testing hypotheses and the advancement of science: recent attempts to falsify the equilibrium point hypothesis. Experimental Brain Research, 2005, 161, 91-103.	1.5	176
17	Muscle synergies during shifts of the center of pressure by standing persons: identification of muscle modes. Biological Cybernetics, 2003, 89, 152-161.	1.3	173
18	Anticipatory postural adjustments in conditions of postural instability. Electroencephalography and Clinical Neurophysiology - Electromyography and Motor Control, 1998, 109, 350-359.	1.4	166

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19	Understanding finger coordination through analysis of the structure of force variability. Biological Cybernetics, 2002, 86, 29-39.	1.3	162
20	Age-related changes in finger coordination in static prehension tasks. Journal of Applied Physiology, 2004, 97, 213-224.	2.5	158
21	A mode hypothesis for finger interaction during multi-finger force-production tasks. Biological Cybernetics, 2003, 88, 91-98.	1.3	147
22	Structure of joint variability in bimanual pointing tasks. Experimental Brain Research, 2002, 143, 11-23.	1.5	140
23	Multifinger Prehension: An Overview. Journal of Motor Behavior, 2008, 40, 446-476.	0.9	140
24	Muscle coactivation: definitions, mechanisms, and functions. Journal of Neurophysiology, 2018, 120, 88-104.	1.8	140
25	Effects of age and gender on finger coordination in MVC and submaximal force-matching tasks. Journal of Applied Physiology, 2003, 94, 259-270.	2.5	137
26	The emergence and disappearance of multi-digit synergies during force-production tasks. Experimental Brain Research, 2005, 164, 260-270.	1.5	135
27	A central back-coupling hypothesis on the organization of motor synergies: a physical metaphor and a neural model. Biological Cybernetics, 2005, 92, 186-191.	1.3	132
28	Anticipatory covariation of finger forces during self-paced and reaction time force production. Neuroscience Letters, 2005, 381, 92-96.	2.1	129
29	The effects of instability and additional hand support on anticipatory postural adjustments in leg, trunk, and arm muscles during standing. Experimental Brain Research, 2000, 135, 81-93.	1.5	124
30	Synergies in Health and Disease: Relations to Adaptive Changes in Motor Coordination. Physical Therapy, 2006, 86, 1151-1160.	2.4	124
31	Anticipatory postural adjustments during self-paced and reaction-time movements. Experimental Brain Research, 1998, 121, 7-19.	1.5	123
32	Motor control theories and their applications. Medicina (Lithuania), 2010, 46, 382.	2.0	123
33	Prehension synergies: trial-to-trial variability and hierarchical organization of stable performance. Experimental Brain Research, 2003, 152, 173-184.	1.5	121
34	Changes in multifinger interaction and coordination in Parkinson's disease. Journal of Neurophysiology, 2012, 108, 915-924.	1.8	117
35	Force and torque production in static multifinger prehension: biomechanics and control. I. Biomechanics. Biological Cybernetics, 2002, 87, 50-57.	1.3	112
36	Finger coordination during discrete and oscillatory force production tasks. Experimental Brain Research, 2002, 146, 419-432.	1.5	108

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37	Motor redundancy during maximal voluntary contraction in four-finger tasks. Experimental Brain Research, 1998, 122, 71-78.	1.5	107
38	Learning multi-finger synergies: an uncontrolled manifold analysis. Experimental Brain Research, 2004, 157, 336-50.	1.5	107
39	Neural control of movement stability: Lessons from studies of neurological patients. Neuroscience, 2015, 301, 39-48.	2.3	107
40	Changes in Postural Sway and Its Fractions in Conditions of Postural Instability. Journal of Applied Biomechanics, 2006, 22, 51-60.	0.8	106
41	Finger coordination in persons with Down syndrome: atypical patterns of coordination and the effects of practice. Experimental Brain Research, 2002, 146, 345-355.	1.5	104
42	Stages in learning motor synergies: A view based on the equilibrium-point hypothesis. Human Movement Science, 2010, 29, 642-654.	1.4	103
43	Finger interaction during accurate multi-finger force production tasks in young and elderly persons. Experimental Brain Research, 2004, 156, 282-292.	1.5	102
44	Effects of Altering Initial Position on Movement Direction and Extent. Journal of Neurophysiology, 2003, 89, 401-415.	1.8	101
45	The role of kinematic redundancy in adaptation of reaching. Experimental Brain Research, 2006, 176, 54-69.	1.5	101
46	Age effects on force produced by intrinsic and extrinsic hand muscles and finger interaction during MVC tasks. Journal of Applied Physiology, 2003, 95, 1361-1369.	2.5	100
47	Two aspects of feedforward postural control: anticipatory postural adjustments and anticipatory synergy adjustments. Journal of Neurophysiology, 2011, 105, 2275-2288.	1.8	100
48	Joint angle variability in 3D bimanual pointing: uncontrolled manifold analysis. Experimental Brain Research, 2005, 163, 44-57.	1.5	99
49	Uncontrolled manifold analysis of single trials during multi-finger force production by persons with and without Down syndrome. Experimental Brain Research, 2003, 153, 45-58.	1.5	98
50	Prehension Synergies. Exercise and Sport Sciences Reviews, 2004, 32, 75-80.	3.0	98
51	Muscle modes and synergies during voluntary body sway. Experimental Brain Research, 2007, 179, 533-550.	1.5	96
52	Effects of different types of light touch on postural sway. Experimental Brain Research, 2002, 147, 71-79.	1.5	95
53	Muscle modes during shifts of the center of pressure by standing persons: effect of instability and additional support. Experimental Brain Research, 2004, 157, 18-31.	1.5	95
54	Practice and Transfer Effects During Fast Single-Joint Elbow Movements in Individuals With Down Syndrome. Physical Therapy, 1994, 74, 1000-1012.	2.4	90

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55	The relation between posture and movement: A study of a simple synergy in a two-joint task. Human Movement Science, 1995, 14, 79-107.	1.4	89
56	Prehension Synergies in Three Dimensions. Journal of Neurophysiology, 2005, 93, 766-776.	1.8	89
57	Age-related changes in multifinger synergies in accurate moment of force production tasks. Journal of Applied Physiology, 2007, 102, 1490-1501.	2.5	89
58	An Equilibrium-Point Model for Fast, Single-Joint Movement: II. Similarity of Single-Joint Isometric and Isotonic Descending Commands. Journal of Motor Behavior, 1991, 23, 179-191.	0.9	88
59	Motor control goes beyond physics: differential effects of gravity and inertia on finger forces during manipulation of hand-held objects. Experimental Brain Research, 2005, 162, 300-308.	1.5	88
60	Motor control in Down syndrome: The role of adaptation and practice. Journal of Developmental and Physical Disabilities, 1992, 4, 227-261.	1.6	82
61	Movement sway: changes in postural sway during voluntary shifts of the center of pressure. Experimental Brain Research, 2003, 150, 314-324.	1.5	82
62	What Do Synergies Do? Effects of Secondary Constraints on Multidigit Synergies in Accurate Force-Production Tasks. Journal of Neurophysiology, 2008, 99, 500-513.	1.8	81
63	A principle of error compensation studied within a task of force production by a redundant set of fingers. Experimental Brain Research, 1998, 122, 131-138.	1.5	80
64	The effects of stroke and age on finger interaction in multi-finger force production tasks. Clinical Neurophysiology, 2003, 114, 1646-1655.	1.5	79
65	Anticipatory postural adjustments during load catching by standing subjects. Clinical Neurophysiology, 2001, 112, 1250-1265.	1.5	78
66	The principle of superposition in human prehension. Robotica, 2004, 22, 231-234.	1.9	76
67	Approaches to analysis of handwriting as a task of coordinating a redundant motor system. Human Movement Science, 2003, 22, 153-171.	1.4	73
68	Anticipatory postural adjustments under simple and choice reaction time conditions. Brain Research, 2002, 924, 184-197.	2.2	72
69	Learning effects on muscle modes and multi-mode postural synergies. Experimental Brain Research, 2008, 184, 323-338.	1.5	72
70	Two stages and three components of the postural preparation to action. Experimental Brain Research, 2011, 212, 47-63.	1.5	72
71	Anticipatory postural adjustments during self-initiated perturbations of different magnitude triggered by a standard motor action. Electroencephalography and Clinical Neurophysiology - Electromyography and Motor Control, 1996, 101, 497-503.	1.4	71
72	The role of action in postural preparation for loading and unloading in standing subjects. Experimental Brain Research, 2001, 138, 458-466.	1.5	71

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73	Two Kinematic Synergies in Voluntary Whole-Body Movements During Standing. Journal of Neurophysiology, 2006, 95, 636-645.	1.8	71
74	Age-related changes in the control of finger force vectors. Journal of Applied Physiology, 2010, 109, 1827-1841.	2.5	71
75	Prehension synergies and control with referent hand configurations. Experimental Brain Research, 2010, 202, 213-229.	1.5	70
76	Mirror Writing: Learning, Transfer, and Implications for Internal Inverse Models. Journal of Motor Behavior, 1999, 31, 107-111.	0.9	69
77	The roles of proximal and distal muscles in anticipatory postural adjustments under asymmetrical perturbations and during standing on rollerskates. Clinical Neurophysiology, 2000, 111, 613-623.	1.5	69
78	Hierarchies of synergies: an example of two-hand, multi-finger tasks. Experimental Brain Research, 2007, 179, 167-180.	1.5	69
79	Force and torque production in static multifinger prehension: biomechanics and control. II. Control. Biological Cybernetics, 2002, 87, 40-49.	1.3	68
80	Prehension Synergies: Trial-to-Trial Variability and Principle of Superposition During Static Prehension in Three Dimensions. Journal of Neurophysiology, 2005, 93, 3649-3658.	1.8	67
81	A Technique to Determine Friction at the Fingertips. Journal of Applied Biomechanics, 2008, 24, 43-50.	0.8	66
82	Fatigue and Motor Redundancy: Adaptive Increase in Finger Force Variance in Multi-Finger Tasks. Journal of Neurophysiology, 2010, 103, 2990-3000.	1.8	66
83	Effects of intrathecal baclofen on voluntary motor control in spastic paresis. Journal of Neurosurgery, 1990, 72, 388-392.	1.6	65
84	Task-specific modulation of anticipatory postural adjustments in individuals with hemiparesis. Clinical Neurophysiology, 2002, 113, 642-655.	1.5	65
85	Effects of motor imagery on finger force responses to transcranial magnetic stimulation. Cognitive Brain Research, 2004, 20, 273-280.	3.0	65
86	Feedforward postural adjustments in a simple two-joint synergy in patients with Parkinson's disease. Electroencephalography and Clinical Neurophysiology - Electromyography and Motor Control, 1995, 97, 77-89.	1.4	64
87	Hierarchical control of static prehension: II. Multi-digit synergies. Experimental Brain Research, 2009, 194, 1-15.	1.5	63
88	Processes underlying unintentional finger-force changes in the absence of visual feedback. Experimental Brain Research, 2015, 233, 711-721.	1.5	63
89	An Equilibrium-Point Model for Fast, Single-Joint Movement: I. Emergence of Strategy-Dependent EMG Patterns. Journal of Motor Behavior, 1991, 23, 163-177.	0.9	62
90	Learning motor synergies by persons with Down syndrome. Journal of Intellectual Disability Research, 2007, 51, 962-971.	2.0	62

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91	Finger force vectors in multi-finger prehension. Journal of Biomechanics, 2003, 36, 1745-1749.	2.1	61
92	Optimality vs. variability: an example of multi-finger redundant tasks. Experimental Brain Research, 2010, 207, 119-132.	1.5	61
93	Elderly show decreased adjustments of motor synergies in preparation to action. Clinical Biomechanics, 2007, 22, 44-51.	1.2	60
94	Central mechanisms of finger interaction during one- and two-hand force production at distal and proximal phalanges. Brain Research, 2002, 924, 198-208.	2.2	59
95	Impaired synergic control of posture in Parkinson's patients without postural instability. Gait and Posture, 2016, 44, 209-215.	1.4	59
96	The effects of strength training on finger strength and hand dexterity in healthy elderly individuals. Journal of Applied Physiology, 2008, 105, 1166-1178.	2.5	58
97	Muscle synergies during voluntary body sway: combining across-trials and within-a-trial analyses. Experimental Brain Research, 2006, 174, 679-693.	1.5	57
98	Effects of olivo-ponto-cerebellar atrophy (OPCA) on finger interaction and coordination. Clinical Neurophysiology, 2013, 124, 991-998.	1.5	57
99	Synergies in health and disease: relations to adaptive changes in motor coordination. Physical Therapy, 2006, 86, 1151-60.	2.4	57
100	Anticipatory postural adjustments and anticipatory synergy adjustments: preparing to a postural perturbation with predictable and unpredictable direction. Experimental Brain Research, 2017, 235, 713-730.	1.5	55
101	Internal forces during object manipulation. Experimental Brain Research, 2005, 165, 69-83.	1.5	54
102	Feed-forward control of a redundant motor system. Biological Cybernetics, 2006, 95, 271-280.	1.3	54
103	Multi-muscle synergies in an unusual postural task: quick shear force production. Experimental Brain Research, 2008, 187, 237-253.	1.5	54
104	An apparent contradiction: increasing variability to achieve greater precision?. Experimental Brain Research, 2014, 232, 403-413.	1.5	54
105	Changes in finger coordination and responses to single pulse TMS of motor cortex during practice of a multifinger force production task. Experimental Brain Research, 2003, 151, 60-71.	1.5	53
106	The effects of muscle vibration on anticipatory postural adjustments. Brain Research, 2004, 1015, 57-72.	2.2	53
107	An analytical approach to the problem of inverse optimization with additive objective functions: an application to human prehension. Journal of Mathematical Biology, 2010, 61, 423-453.	1.9	53
108	Early and late components of feed-forward postural adjustments to predictable perturbations. Clinical Neurophysiology, 2012, 123, 1016-1026.	1.5	53

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109	Towards physics of neural processes and behavior. Neuroscience and Biobehavioral Reviews, 2016, 69, 136-146.	6.1	53
110	Viscoelastic response of the finger pad to incremental tangential displacements. Journal of Biomechanics, 2005, 38, 1441-1449.	2.1	51
111	Effects of joint immobilization on standing balance. Human Movement Science, 2009, 28, 515-528.	1.4	51
112	The effects of age on stabilization of the mediolateral trajectory of the swing foot. Gait and Posture, 2013, 38, 923-928.	1.4	51
113	Changes in the force-sharing pattern induced by modifications of visual feedback during force production by a set of fingers. Experimental Brain Research, 1998, 123, 255-262.	1.5	50
114	Do synergies decrease force variability? A study of single-finger and multi-finger force production. Experimental Brain Research, 2008, 188, 411-425.	1.5	50
115	Flexible muscle modes and synergies in challenging whole-body tasks. Experimental Brain Research, 2008, 189, 171-187.	1.5	50
116	Kinematic description of variability of fast movements: analytical and experimental approaches. Biological Cybernetics, 1993, 69, 485-492.	1.3	49
117	Effects of friction at the digit-object interface on the digit forces in multi-finger prehension. Experimental Brain Research, 2006, 172, 425-438.	1.5	49
118	The sources of two components of variance: an example of multifinger cyclic force production tasks at different frequencies. Experimental Brain Research, 2009, 196, 263-277.	1.5	49
119	Factors affecting grip force: anatomy, mechanics, and referent configurations. Experimental Brain Research, 2014, 232, 1219-1231.	1.5	49
120	Stability of hand force production. I. Hand level control variables and multifinger synergies. Journal of Neurophysiology, 2017, 118, 3152-3164.	1.8	49
121	Unsteady steady-states: central causes of unintentional force drift. Experimental Brain Research, 2016, 234, 3597-3611.	1.5	48
122	Bilateral deficit and symmetry in finger force production during two-hand multifinger tasks. Experimental Brain Research, 2001, 141, 530-540.	1.5	47
123	An equilibrium-point model of electromyographic patterns during single-joint movements based on experimentally reconstructed control signals. Journal of Electromyography and Kinesiology, 1994, 4, 230-241.	1.7	46
124	Muscle synergies involved in preparation to a step made under the self-paced and reaction time instructions. Clinical Neurophysiology, 2006, 117, 41-56.	1.5	46
125	Is Voluntary Control of Natural Postural Sway Possible?. Journal of Motor Behavior, 2008, 40, 179-185.	0.9	46
126	Dopaminergic modulation of motor coordinaton in Parkinson's disease. Parkinsonism and Related Disorders, 2014, 20, 64-68.	2.2	46

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127	Prehension synergies and hand function in early-stage Parkinsonâ€™s disease. Experimental Brain Research, 2015, 233, 425-440.	1.5	46
128	Independent control of joint stiffness in the framework of the equilibrium-point hypothesis. Biological Cybernetics, 1992, 67, 377-384.	1.3	45
129	Adjustments of prehension synergies in response to self-triggered and experimenter-triggered load and torque perturbations. Experimental Brain Research, 2006, 175, 641-653.	1.5	45
130	Effects of unilateral stroke on multi-finger synergies and their feed-forward adjustments. Neuroscience, 2016, 319, 194-205.	2.3	45
131	Motor variability within a multi-effector system: experimental and analytical studies of multi-finger production of quick force pulses. Experimental Brain Research, 2005, 163, 75-85.	1.5	44
132	Age-related changes in optimality and motor variability: an example of multifinger redundant tasks. Experimental Brain Research, 2011, 212, 1-18.	1.5	44
133	Improving finger coordination in young and elderly persons. Experimental Brain Research, 2013, 226, 273-283.	1.5	44
134	Equifinality and its violations in a redundant system: multifinger accurate force production. Journal of Neurophysiology, 2013, 110, 1965-1973.	1.8	44
135	The use of flexible arm muscle synergies to perform an isometric stabilization task. Clinical Neurophysiology, 2007, 118, 525-537.	1.5	43
136	Synergy as a new and sensitive marker of basal ganglia dysfunction: A study of asymptomatic welders. NeuroToxicology, 2016, 56, 76-85.	3.0	43
137	Synergic control of a single muscle: The example of flexor digitorum superficialis. Journal of Physiology, 2021, 599, 1261-1279.	2.9	43
138	Muscle synergies involved in shifting the center of pressure while making a first step. Experimental Brain Research, 2005, 167, 196-210.	1.5	42
139	Anticipatory adjustments of multi-finger synergies in preparation for self-triggered perturbations. Experimental Brain Research, 2006, 174, 604-612.	1.5	42
140	Motor Abundance Contributes to Resolving Multiple Kinematic Task Constraints. Motor Control, 2010, 14, 83-115.	0.6	42
141	Evolution of Motor Control: From Reflexes and Motor Programs to the Equilibrium-Point Hypothesis. Journal of Human Kinetics, 2008, 19, 3-24.	1.5	41
142	Practicing Elements Versus Practicing Coordination: Changes in the Structure of Variance. Journal of Motor Behavior, 2012, 44, 471-478.	0.9	41
143	Abnormal motor patterns in the framework of the equilibrium-point hypothesis: a cause for dystonic movements?. Biological Cybernetics, 1994, 71, 87-94.	1.3	40
144	Motor control theories and their applications. Medicina (Lithuania), 2010, 46, 382-92.	2.0	40

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145	Manipulation of a fragile object. Experimental Brain Research, 2010, 202, 413-430.	1.5	39
146	Effects of muscle fatigue on multi-muscle synergies. Experimental Brain Research, 2011, 214, 335-350.	1.5	39
147	Prehension synergies during nonvertical grasping, I: experimental observations. Biological Cybernetics, 2004, 91, 148-58.	1.3	38
148	Is the thumb a fifth finger? A study of digit interaction during force production tasks. Experimental Brain Research, 2005, 160, 203-213.	1.5	38
149	Finger inter-dependence: Linking the kinetic and kinematic variables. Human Movement Science, 2008, 27, 408-422.	1.4	38
150	End-state comfort and joint configuration variance during reaching. Experimental Brain Research, 2013, 225, 431-442.	1.5	38
151	Laws of nature that define biological action and perception. Physics of Life Reviews, 2021, 36, 47-67.	2.8	38
152	A study of a bimanual synergy associated with holding an object. Human Movement Science, 1998, 17, 753-779.	1.4	37
153	Anticipatory postural adjustments associated with lateral and rotational perturbations during standing. Journal of Electromyography and Kinesiology, 2001, 11, 39-51.	1.7	37
154	Do Synergies Improve Accuracy? A Study of Speed-Accuracy Trade-Offs during Finger Force Production. Motor Control, 2008, 12, 151-172.	0.6	37
155	Motor Equivalence (ME) During Reaching: Is ME Observable at the Muscle Level?. Motor Control, 2013, 17, 145-175.	0.6	37
156	Unintentional movements produced by back-coupling between the actual and referent body configurations: violations of equifinality in multi-joint positional tasks. Experimental Brain Research, 2014, 232, 3847-3859.	1.5	37
157	The Effects of Practice on Coordination. Exercise and Sport Sciences Reviews, 2014, 42, 37-42.	3.0	37
158	On the nature of unintentional action: a study of force/moment drifts during multifinger tasks. Journal of Neurophysiology, 2016, 116, 698-708.	1.8	37
159	Multi-Finger Prehension: Control of a Redundant Mechanical System. Advances in Experimental Medicine and Biology, 2009, 629, 597-618.	1.6	37
160	The human central nervous system needs time to organize task-specific covariation of finger forces. Neuroscience Letters, 2003, 353, 72-74.	2.1	36
161	Finger coordination during moment production on a mechanically fixed object. Experimental Brain Research, 2004, 157, 457-67.	1.5	36
162	Emerging and disappearing synergies in a hierarchically controlled system. Experimental Brain Research, 2007, 183, 259-270.	1.5	36

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163	Fittsâ€™ Law in early postural adjustments. Neuroscience, 2013, 231, 61-69.	2.3	36
164	Dopaminergic modulation of multi-muscle synergies in postural tasks performed by patients with Parkinsonâ€™s disease. Journal of Electromyography and Kinesiology, 2017, 33, 20-26.	1.7	36
165	The basis of a simple synergy: reconstruction of joint equilibrium trajectories during unrestrained arm movements. Human Movement Science, 1999, 18, 3-30.	1.4	35
166	Hand dominance and multi-finger synergies. Neuroscience Letters, 2006, 409, 200-204.	2.1	35
167	Multi-muscle synergies in a dual postural task: evidence for the principle of superposition. Experimental Brain Research, 2010, 202, 457-471.	1.5	35
168	Biological Movement and Laws of Physics. Motor Control, 2017, 21, 327-344.	0.6	35
169	Changes in voluntary motor control induced by intrathecal baclofen in patients with spasticity of different etiology. Physiotherapy Research International, 1996, 1, 229-246.	1.5	34
170	On Primitives in Motor Control. Motor Control, 2020, 24, 318-346.	0.6	34
171	Reconstruction of equilibrium trajectories and joint stiffness patterns during single-joint voluntary movements under different instructions. Biological Cybernetics, 1994, 71, 441-450.	1.3	33
172	Effects of postural task requirements on the speedâ€“accuracy trade-off. Experimental Brain Research, 2007, 180, 457-467.	1.5	33
173	Stability of multifinger action in different state spaces. Journal of Neurophysiology, 2014, 112, 3209-3218.	1.8	33
174	Finger interactions studied with transcranial magnetic stimulation during multi-finger force production tasks. Clinical Neurophysiology, 2003, 114, 1445-1455.	1.5	32
175	Prehension synergies during nonvertical grasping, II: Modeling and optimization. Biological Cybernetics, 2004, 91, 231-242.	1.3	32
176	Motor equivalence and structure of variance: multi-muscle postural synergies in Parkinsonâ€™s disease. Experimental Brain Research, 2017, 235, 2243-2258.	1.5	32
177	A New Book by N. A. Bernstein: â€œOn Dexterity and Its Developmentâ€. Journal of Motor Behavior, 1994, 26, 56-62.	0.9	31
178	Motor equivalence during multi-finger accurate force production. Experimental Brain Research, 2015, 233, 487-502.	1.5	31
179	Challenging gait leads to stronger lower-limb kinematic synergies: The effects of walking within a more narrow pathway. Neuroscience Letters, 2015, 600, 110-114.	2.1	31
180	The organization of quick corrections within a two-joint synergy in conditions of unexpected blocking and release of a fast movement. Clinical Neurophysiology, 2000, 111, 975-987.	1.5	30

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181	Tangential load sharing among fingers during prehension. Ergonomics, 2004, 47, 876-889.	2.1	30
182	Maintaining rotational equilibrium during object manipulation: linear behavior of a highly non-linear system. Experimental Brain Research, 2006, 169, 519-531.	1.5	30
183	Early postural adjustments in preparation to whole-body voluntary sway. Journal of Electromyography and Kinesiology, 2012, 22, 110-116.	1.7	30
184	The effects of aging on the rambling and trembling components of postural sway: Effects of motor and sensory challenges. Gait and Posture, 2013, 38, 637-642.	1.4	30
185	Prehension Stability: Experiments With Expanding and Contracting Handle. Journal of Neurophysiology, 2006, 95, 2513-2529.	1.8	29
186	Postural control during upper body locomotor-like movements: similar synergies based on dissimilar muscle modes. Experimental Brain Research, 2009, 193, 565-579.	1.5	29
187	Virtual reality: A fascinating tool for motor rehabilitation (to be used with caution). Disability and Rehabilitation, 1998, 20, 104-105.	1.8	28
188	Anticipatory Synergy Adjustments in Preparation to Self-Triggered Perturbations in Elderly Individuals. Journal of Applied Biomechanics, 2008, 24, 175-179.	0.8	28
189	Optimality versus variability: effect of fatigue in multi-finger redundant tasks. Experimental Brain Research, 2012, 216, 591-607.	1.5	28
190	Relations between surface EMG of extrinsic flexors and individual finger forces support the notion of muscle compartments. European Journal of Applied Physiology, 2002, 88, 185-188.	2.5	27
191	Reversals of anticipatory postural adjustments during voluntary sway in humans. Journal of Physiology, 2005, 565, 675-684.	2.9	27
192	Adjustments to Local Friction in Multifinger Prehension. Journal of Motor Behavior, 2007, 39, 276-290.	0.9	27
193	Finger force changes in the absence of visual feedback in patients with Parkinsonâ€™s disease. Clinical Neurophysiology, 2016, 127, 684-692.	1.5	27
194	Learning a pointing task with a kinematically redundant limb: Emerging synergies and patterns of final position variability. Human Movement Science, 1999, 18, 819-838.	1.4	26
195	Finger Coordination and Bilateral Deficit during Two-Hand Force Production Tasks Performed by Right-Handed Subjects. Journal of Applied Biomechanics, 2000, 16, 379-391.	0.8	26
196	Postural Synergies and Their Development. Neural Plasticity, 2005, 12, 119-130.	2.2	26
197	Mechanical Analysis and Hierarchies of Multidigit Synergies during Accurate Object Rotation. Motor Control, 2009, 13, 251-279.	0.6	26
198	Intentional and unintentional multi-joint movements: Their nature and structure of variance. Neuroscience, 2015, 289, 181-193.	2.3	26

#	Article	IF	Citations
199	Stability of hand force production. II. Ascending and descending synergies. Journal of Neurophysiology, 2018, 120, 1045-1060.	1.8	26
200	Control of finger force direction in the flexion-extension plane. Experimental Brain Research, 2005, 161, 307-315.	1.5	25
201	Plastic changes in interhemispheric inhibition with practice of a two-hand force production task: a transcranial magnetic stimulation study. Neuroscience Letters, 2005, 374, 104-108.	2.1	25
202	Analyses of joint variance related to voluntary whole-body movements performed in standing. Journal of Neuroscience Methods, 2010, 188, 89-96.	2.5	25
203	Anticipatory synergy adjustments: preparing a quick action in an unknown direction. Experimental Brain Research, 2013, 226, 565-573.	1.5	25
204	Effects of Parkinsonâ€™s disease on optimization and structure of variance in multi-finger tasks. Experimental Brain Research, 2013, 231, 51-63.	1.5	25
205	One more time about motor (and non-motor) synergies. Experimental Brain Research, 2021, 239, 2951-2967.	1.5	25
206	Hierarchies of Synergies in Human Movements. Kinesiology, 2008, 40, 29-38.	0.6	25
207	Prehension Synergies in the Grasps With Complex Friction Patterns: Local Versus Synergic Effects and the Template Control. Journal of Neurophysiology, 2007, 98, 16-28.	1.8	24
208	Manipulation of a fragile object by elderly individuals. Experimental Brain Research, 2011, 212, 505-516.	1.5	24
209	Effects of practice on final position reproduction. Experimental Brain Research, 1992, 91, 129-34.	1.5	23
210	Is there a timing synergy during multi-finger production of quick force pulses?. Experimental Brain Research, 2004, 159, 65-71.	1.5	23
211	Movements that are both variable and optimal. Journal of Human Kinetics, 2012, 34, 5-13.	1.5	23
212	Grip-force modulation in multi-finger prehension during wrist flexion and extension. Experimental Brain Research, 2013, 227, 509-522.	1.5	23
213	Equifinality and Its Violations in a Redundant System: Control with Referent Configurations in a Multi-Joint Positional Task. Motor Control, 2014, 18, 405-424.	0.6	23
214	Effects of visual feedback and memory on unintentional drifts in performance during finger-pressing tasks. Experimental Brain Research, 2017, 235, 1149-1162.	1.5	23
215	Optimality and stability of intentional and unintentional actions: I. Origins of drifts in performance. Experimental Brain Research, 2017, 235, 481-496.	1.5	23
216	Systemic effects of deep brain stimulation on synergic control in Parkinsonâ€™s disease. Clinical Neurophysiology, 2018, 129, 1320-1332.	1.5	23

#	Article	IF	Citations
217	Force illusions and drifts observed during muscle vibration. Journal of Neurophysiology, 2018, 119, 326-336.	1.8	23
218	Changes in the symmetry of rapid movements. Experimental Brain Research, 1998, 120, 52-60.	1.5	22
219	Anticipatory control of head posture. Clinical Neurophysiology, 2007, 118, 1802-1814.	1.5	22
220	Grip forces during object manipulation: experiment, mathematical model, and validation. Experimental Brain Research, 2011, 213, 125-139.	1.5	22
221	Age effects on rotational hand action. Human Movement Science, 2012, 31, 502-518.	1.4	22
222	Effects of muscle vibration on multi-finger interaction and coordination. Experimental Brain Research, 2013, 229, 103-111.	1.5	22
223	Changes in Multidigit Synergies and Their Feed-Forward Adjustments in Multiple Sclerosis. Journal of Motor Behavior, 2017, 49, 218-228.	0.9	22
224	Modulation of simple reaction time on the background of an oscillatory action: implications for synergy organization. Experimental Brain Research, 2000, 131, 85-100.	1.5	21
225	Finger interaction during multi-finger tasks involving finger addition and removal. Experimental Brain Research, 2003, 150, 230-236.	1.5	21
226	Time evolution of the organization of multi-muscle postural responses to sudden changes in the external force applied at the trunk level. Neuroscience Letters, 2008, 438, 238-241.	2.1	21
227	Stabilization of cat paw trajectory during locomotion. Journal of Neurophysiology, 2014, 112, 1376-1391.	1.8	21
228	The nature of constant and cyclic force production: unintentional force-drift characteristics. Experimental Brain Research, 2016, 234, 197-208.	1.5	21
229	Effects of Voluntary Agonistâ€“Antagonist Coactivation on Stability of Vertical Posture. Motor Control, 2019, 23, 304-326.	0.6	21
230	Synergies at the level of motor units in single-finger and multi-finger tasks. Experimental Brain Research, 2021, 239, 2905-2923.	1.5	21
231	Forces and moments generated by the human arm: variability and control. Experimental Brain Research, 2012, 223, 159-175.	1.5	20
232	Stability of steady hand force production explored across spaces and methods of analysis. Experimental Brain Research, 2018, 236, 1545-1562.	1.5	20
233	Individual preferences in motor coordination seen across the two hands: relations to movement stability and optimality. Experimental Brain Research, 2019, 237, 1-13.	1.5	20
234	Perceptual and Motor Effects of Muscle Co-activation in a Force Production Task. Neuroscience, 2020, 437, 34-44.	2.3	20

#	Article	IF	Citations
235	Interaction of finger enslaving and error compensation in multiple finger force production. Experimental Brain Research, 2009, 192, 293-298.	1.5	19
236	Unintentional drifts during quiet stance and voluntary body sway. Experimental Brain Research, 2017, 235, 2301-2316.	1.5	19
237	The synergic control of multi-finger force production: stability of explicit and implicit task components. Experimental Brain Research, 2017, 235, 1-14.	1.5	19
238	Bilateral multifinger deficits in symmetric key-pressing tasks. Experimental Brain Research, 2001, 140, 86-94.	1.5	18
239	Hierarchical control of static prehension: I. Biomechanics. Experimental Brain Research, 2009, 193, 615-631.	1.5	18
240	Finger interaction in a three-dimensional pressing task. Experimental Brain Research, 2010, 203, 101-118.	1.5	18
241	Bilateral synergies in foot force production tasks. Experimental Brain Research, 2013, 227, 121-130.	1.5	18
242	Finger enslaving in the dominant and non-dominant hand. Human Movement Science, 2014, 33, 185-193.	1.4	18
243	Interpersonal synergies: static prehension tasks performed by two actors. Experimental Brain Research, 2016, 234, 2267-2282.	1.5	18
244	Stability of Kinesthetic Perception in Efferent-Afferent Spaces: The Concept of Iso-perceptual Manifold. Neuroscience, 2018, 372, 97-113.	2.3	18
245	Efference copy in kinesthetic perception: a copy of what is it?. Journal of Neurophysiology, 2021, 125, 1079-1094.	1.8	18
246	Are there deficits in anticipatory postural adjustments in ParkinsonÊ¼s disease?. NeuroReport, 1996, 7, 1794-1796.	1.2	17
247	Rotational Equilibrium during Multi-Digit Pressing and Prehension. Motor Control, 2004, 8, 392-404.	0.6	17
248	Multi-digit maximum voluntary torque production on a circular object. Ergonomics, 2007, 50, 660-675.	2.1	17
249	Digit force adjustments during finger addition/removal in multi-digit prehension. Experimental Brain Research, 2008, 189, 345-359.	1.5	17
250	Violations of Fittsâ€™ Law in a Ballistic Task. Journal of Motor Behavior, 2009, 41, 525-528.	0.9	17
251	Force-stabilizing synergies in motor tasks involving two actors. Experimental Brain Research, 2015, 233, 2935-2949.	1.5	17
252	Exploring the Concept of Iso-perceptual Manifold (IPM): A Study of Finger Force-Matching Tasks. Neuroscience, 2019, 401, 130-141.	2.3	17

#	Article	IF	Citations
253	Motor control research in rehabilitation medicine. Disability and Rehabilitation, 1996, 18, 293-299.	1.8	16
254	Reconstruction of equilibrium trajectories during whole-body movements. Biological Cybernetics, 1999, 80, 195-204.	1.3	16
255	Matrix analyses of interaction among fingers in static force production tasks. Biological Cybernetics, 2003, 89, 407-414.	1.3	16
256	Joint coordination during bimanual transport of real and imaginary objects. Neuroscience Letters, 2009, 456, 80-84.	2.1	16
257	Beyond rambling and trembling: effects of visual feedback on slow postural drift. Experimental Brain Research, 2019, 237, 865-871.	1.5	16
258	Quantitative analysis of multi-element synergy stabilizing performance: comparison of three methods with respect to their use in clinical studies. Experimental Brain Research, 2019, 237, 453-465.	1.5	16
259	Accurate production of time-varying patterns of the moment of force in multi-finger tasks. Experimental Brain Research, 2006, 175, 68-82.	1.5	15
260	Variance components in discrete force production tasks. Experimental Brain Research, 2010, 205, 335-349.	1.5	15
261	Adaptive increase in force variance during fatigue in tasks with low redundancy. Neuroscience Letters, 2010, 485, 204-207.	2.1	15
262	Prehension of half-full and half-empty glasses: time and history effects on multi-digit coordination. Experimental Brain Research, 2011, 209, 571-585.	1.5	15
263	Mechanical properties of the human hand digits: Age-related differences. Clinical Biomechanics, 2014, 29, 129-137.	1.2	15
264	Distortions of the Efferent Copy during Force Perception: A Study of Force Drifts and Effects of Muscle Vibration. Neuroscience, 2021, 457, 139-154.	2.3	15
265	Reciprocal and coactivation commands at the level of individual motor units in an extrinsic finger flexorâ€“extensor muscle pair. Experimental Brain Research, 2022, 240, 321-340.	1.5	15
266	Changes in movement kinematics during single-joint movements against expectedly and unexpectedly changed inertial loads. Human Movement Science, 1999, 18, 49-66.	1.4	14
267	Effects of grasping force magnitude on the coordination of digit forces in multi-finger prehension. Experimental Brain Research, 2009, 194, 115-129.	1.5	14
268	Effects of fatigue on synergies in a hierarchical system. Human Movement Science, 2012, 31, 1379-1398.	1.4	14
269	Multi-finger synergies and the muscular apparatus of the hand. Experimental Brain Research, 2018, 236, 1383-1393.	1.5	14
270	Case Studies in Neuroscience: The central and somatosensory contributions to finger interdependence and coordination: lessons from a study of a â€œdeafferented personâ€• Journal of Neurophysiology, 2019, 121, 2083-2087.	1.8	14

#	Article	IF	Citations
271	Biomechanics of Vertical Posture and Control with Referent Joint Configurations. Journal of Motor Behavior, 2021, 53, 72-82.	0.9	14
272	The effects of practice on movement reproduction: Implications for models of motor control. Human Movement Science, 1996, 15, 101-114.	1.4	13
273	Organization of Drinking: Postural Characteristics of Arm-Head Coordination. Journal of Motor Behavior, 2002, 34, 139-150.	0.9	13
274	Evidence for Slowing as a Function of Index of Difficulty in Young Adults With Down Syndrome. American Journal on Intellectual and Developmental Disabilities, 2009, 114, 411-426.	1.6	13
275	Enslaving in a serial chain: interactions between grip force and hand force in isometric tasks. Experimental Brain Research, 2014, 232, 775-787.	1.5	13
276	Coupling phenomena during asynchronous submaximal two-hand, multi-finger force production tasks in humans. Neuroscience Letters, 2002, 331, 75-78.	2.1	12
277	Finger interaction during maximal radial and ulnar deviation efforts: experimental data and linear neural network modeling. Experimental Brain Research, 2007, 179, 301-312.	1.5	12
278	Multifinger Ab- and Adduction Strength and Coordination. Journal of Hand Therapy, 2008, 21, 377-385.	1.5	12
279	Motor Control: In Search of Physics of the Living Systems. Journal of Human Kinetics, 2010, 24, 7-18.	1.5	12
280	Finger Coordination Under Artificial Changes in Finger Strength Feedback: A Study Using Analytical Inverse Optimization. Journal of Motor Behavior, 2011, 43, 229-235.	0.9	12
281	Tangential Finger Forces Use Mechanical Advantage During Static Grasping. Journal of Applied Biomechanics, 2012, 28, 78-84.	0.8	12
282	Radial force distribution changes associated with tangential force production in cylindrical grasping, and the importance of anatomical registration. Journal of Biomechanics, 2012, 45, 218-224.	2.1	12
283	Contrasting effects of fatigue on multifinger coordination in young and older adults. Journal of Applied Physiology, 2013, 115, 456-467.	2.5	12
284	Task-Specific Stability of Multifinger Steady-State Action. Journal of Motor Behavior, 2015, 47, 365-377.	0.9	12
285	Stability of vertical posture explored with unexpected mechanical perturbations: synergy indices and motor equivalence. Experimental Brain Research, 2018, 236, 1501-1517.	1.5	12
286	Effects of hand muscle function and dominance on intra-muscle synergies. Human Movement Science, 2022, 82, 102936.	1.4	12
287	Velocity-dependent activation of postural muscles in a simple two-joint synergy. Human Movement Science, 1995, 14, 351-369.	1.4	11
288	Learning a Motor Task Involving Obstacles by a Multi-Joint, Redundant Limb: Two Synergies within One Movement. Journal of Electromyography and Kinesiology, 1998, 8, 169-176.	1.7	11

#	Article	IF	Citations
289	30 Years Later: On the Problem of the Relation between Structure and Function in the Brain from a Contemporary Viewpoint (1966), Part II. Motor Control, 2000, 4, 125-149.	0.6	11
290	Effects of transcranial magnetic stimulation on muscle activation patterns and joint kinematics within a two-joint motor synergy. Brain Research, 2003, 961, 229-242.	2.2	11
291	Stability Control of Grasping Objects With Different Locations of Center of Mass and Rotational Inertia. Journal of Motor Behavior, 2012, 44, 169-178.	0.9	11
292	Internal Forces During Static Prehension: Effects of Age and Grasp Configuration. Journal of Motor Behavior, 2014, 46, 211-222.	0.9	11
293	Learning to Combine High Variability With High Precision: Lack of Transfer to a Different Task. Journal of Motor Behavior, 2015, 47, 153-165.	0.9	11
294	Biomechanics as a window into the neural control of movement. Journal of Human Kinetics, 2016, 52, 7-20.	1.5	11
295	Synergies and Motor Equivalence in Voluntary Sway Tasks: The Effects of Visual and Mechanical Constraints. Journal of Motor Behavior, 2018, 50, 492-509.	0.9	11
296	On the origin of finger enslaving: control with referent coordinates and effects of visual feedback. Journal of Neurophysiology, 2020, 124, 1625-1636.	1.8	11
297	Synergic control of action in levodopa-naÃ¯ve Parkinsonâ€™s disease patients: II. Multi-muscle synergies stabilizing vertical posture. Experimental Brain Research, 2020, 238, 2931-2945.	1.5	11
298	Prehension synergies during smooth changes of the external torque. Experimental Brain Research, 2011, 213, 493-506.	1.5	10
299	Reconstruction of the Unknown Optimization Cost Functions from Experimental Recordings during Static Multi-Finger Prehension. Motor Control, 2012, 16, 195-228.	0.6	10
300	Multi-digit coordination during lifting a horizontally oriented object: synergies control with referent configurations. Experimental Brain Research, 2012, 222, 277-290.	1.5	10
301	Static prehension of a horizontally oriented object in three dimensions. Experimental Brain Research, 2012, 216, 249-261.	1.5	10
302	Characteristics of Unintentional Movements by a Multijoint Effector. Journal of Motor Behavior, 2015, 47, 352-361.	0.9	10
303	Finger Force Matching and Verbal Reports: Testing Predictions of the Iso-Perceptual Manifold Concept. Journal of Motor Behavior, 2021, 53, 598-610.	0.9	10
304	The Nature of Finger Enslaving: New Results and Their Implications. Motor Control, 2021, 25, 680-703.	0.6	10
305	Components of the End-Effector Jerk during Voluntary Arm Movements. Journal of Applied Biomechanics, 2000, 16, 14-25.	0.8	9
306	A Device for Testing the Intrinsic Muscles of the Hand. Journal of Hand Therapy, 2007, 20, 345-350.	1.5	9

#	Article	IF	Citations
307	Finger synergies during multi-finger cyclic production of moment of force. Experimental Brain Research, 2007, 177, 243-254.	1.5	9
308	Reproducibility and Variability of the Cost Functions Reconstructed From Experimental Recordings in Multifinger Prehension. Journal of Motor Behavior, 2012, 44, 69-85.	0.9	9
309	Optimality and stability of intentional and unintentional actions: II. Motor equivalence and structure of variance. Experimental Brain Research, 2017, 235, 457-470.	1.5	9
310	Systematic, Unintended Drifts in the Cyclic Force Produced with the Fingertips. Motor Control, 2018, 22, 82-99.	0.6	9
311	Finger interdependence and unintentional force drifts: Lessons from manipulations of visual feedback. Human Movement Science, 2020, 74, 102714.	1.4	9
312	Understanding and Synergy: A Single Concept at Different Levels of Analysis?. Frontiers in Systems Neuroscience, 2021, 15, 735406.	2.5	9
313	Instruction-Dependent Muscle Activation Patterns Within a Two-Joint Synergy: Separating Mechanics From Neurophysiology. Journal of Motor Behavior, 1998, 30, 194-198.	0.9	8
314	Postural Preparation to Making a Step: Is There a â€œMotor Programâ€•for Postural Preparation?. Journal of Applied Biomechanics, 2007, 23, 261-274.	0.8	8
315	Task-specific stability in muscle activation space during unintentional movements. Experimental Brain Research, 2014, 232, 3645-3658.	1.5	8
316	Synergic control of action in levodopa-naÃ¯ve Parkinsonâ€™s disease patients: I. Multi-finger interaction and coordination. Experimental Brain Research, 2020, 238, 229-245.	1.5	8
317	What do people match when they try to match force? Analysis at the level of hypothetical control variables. Experimental Brain Research, 2020, 238, 1885-1901.	1.5	8
318	Postural Preparation to Stepping: Coupled Center of Pressure Shifts in the Anterior-Posterior and Medio-Lateral Directions. Journal of Human Kinetics, 2016, 54, 5-14.	1.5	8
319	Sloppy, But Acceptable, Control of Biological Movement: Algorithm-Based Stabilization of Subspaces in Abundant Spaces. Journal of Human Kinetics, 2019, 67, 49-72.	1.5	8
320	Unintentional Force Drifts as Consequences of Indirect Force Control with Spatial Referent Coordinates. Neuroscience, 2022, 481, 156-165.	2.3	8
321	Neural network modeling supports a theory on the hierarchical control of prehension. Neural Computing and Applications, 2004, 13, 352-359.	5.6	7
322	Effects of a novel method of acute tryptophan depletion on plasma tryptophan and cognitive performance in healthy volunteers. Psychopharmacology, 2004, 177, 217-223.	3.1	7
323	Similar Motion of a Hand-held Object may Trigger Nonsimilar Grip Force Adjustments. Journal of Hand Therapy, 2007, 20, 300-308.	1.5	7
324	Motor Control: The Heart of Kinesiology. Quest, 2008, 60, 19-30.	1.2	7

#	Article	IF	Citations
325	Optimization and Variability of Motor Behavior in Multifinger Tasks: What Variables Does the Brain Use?. Journal of Motor Behavior, 2013, 45, 289-305.	0.9	7
326	Inter-limb force coupling is resistant to distorted visual feedback in chronic hemiparetic stroke. Journal of Rehabilitation Medicine, 2014, 46, 206-211.	1.1	7
327	Unintentional changes in the apparent stiffness of the multi-joint limb. Experimental Brain Research, 2015, 233, 2989-3004.	1.5	7
328	Human Movements: Synergies, Stability, and Agility. Springer Tracts in Advanced Robotics, 2019, , 135-154.	0.4	7
329	Performance-Stabilizing Synergies in a Complex Motor Skill: Analysis Based on the Uncontrolled Manifold Hypothesis. Motor Control, 2020, 24, 238-252.	0.6	7
330	30 Years Later: The Relation between Structure and Function in the Brain from a Contemporary Point of View (1966), Part 1. Motor Control, 1999, 3, 329-345.	0.6	6
331	Two Archetypes of Motor Control Research. Motor Control, 2010, 14, e41-e53.	0.6	6
332	Kinematic synergies during saccades involving whole-body rotation: A study based on the uncontrolled manifold hypothesis. Human Movement Science, 2010, 29, 243-258.	1.4	6
333	Prehension Synergies during Fatigue of a Single Digit: Adaptations in Control with Referent Configurations. Motor Control, 2014, 18, 278-296.	0.6	6
334	Intra-Personal and Inter-Personal Kinetic Synergies During Jumping. Journal of Human Kinetics, 2015, 49, 75-88.	1.5	6
335	Motor Control: On the Way to Physics of Living Systems. Advances in Experimental Medicine and Biology, 2014, 826, 1-16.	1.6	6
336	Principle of Superposition in Human Prehension. , 2006, , 249-261.		6
337	The equilibrium-point hypothesis is still doing fine. Human Movement Science, 2000, 19, 933-938.	1.4	5
338	Digit forces in multi-digit grasps. , 0, , 33-51.		5
339	Effects of the index finger position and force production on the flexor digitorum superficialis moment arms at the metacarpophalangeal joints â€" a magnetic resonance imaging study. Clinical Biomechanics, 2012, 27, 453-459.	1.2	5
340	Exemplary behaviors. , 2012, , 211-259.		5
341	Control of Finger Force Vectors With Changes in Fingertip Referent Coordinates. Journal of Motor Behavior, 2013, 45, 15-20.	0.9	5
342	Abundant Degrees of Freedom Are Not a Problem. Kinesiology Review, 2018, 7, 64-72.	0.6	5

#	Article	IF	Citations
343	Stepping from a narrow support. Journal of Electromyography and Kinesiology, 2007, 17, 462-472.	1.7	4
344	Stability of the multi-finger prehension synergy studied with transcranial magnetic stimulation. Experimental Brain Research, 2008, 190, 225-238.	1.5	4
345	How long does it take to describe what one sees? The first step using picture description tasks. Human Movement Science, 2010, 29, 369-385.	1.4	4
346	Adaptations to fatigue of a single digit violate the principle of superposition in a multi-finger static prehension task. Experimental Brain Research, 2013, 225, 589-602.	1.5	4
347	Changes in the flexor digitorum profundus tendon geometry in the carpal tunnel due to force production and posture of metacarpophalangeal joint of the index finger: An MRI study. Clinical Biomechanics, 2013, 28, 157-163.	1.2	4
348	Is Power Grasping Contact Continuous or Discrete?. Journal of Applied Biomechanics, 2013, 29, 554-562.	0.8	4
349	Comparison of Interfinger Connection Matrix Computation Techniques. Journal of Applied Biomechanics, 2013, 29, 525-534.	0.8	4
350	Postural sway and perceived comfort in pointing tasks. Neuroscience Letters, 2014, 569, 18-22.	2.1	4
351	The Hand: Shall We Ever Understand How It Works?. Motor Control, 2015, 19, 108-126.	0.6	4
352	Preparation to a quick whole-body action: control with referent body orientation and multi-muscle synergies. Experimental Brain Research, 2019, 237, 1361-1374.	1.5	4
353	Postural Adjustments during Interactions with an Active Partner. Neuroscience, 2021, 463, 14-29.	2.3	4
354	Perturbation-induced fast drifts in finger enslaving. Experimental Brain Research, 2021, 239, 891-902.	1.5	4
355	Changes in Finger Coordination and Hand Function with Advanced Age. , 2006, , 141-159.		4
356	Reconstruction of equilibrium trajectories and joint stiffness patterns during single-joint voluntary movements under different instructions. Biological Cybernetics, 1994, 71, 441-450.	1.3	4
357	Similarities and Differences in Finger Interaction across Typical and Atypical Subpopulations. Journal of Applied Biomechanics, 2003, 19, 264-270.	0.8	3
358	Analysis of a Network for Finger Interaction during Two-Hand Multi-Finger Force Production Tasks. Journal of Applied Biomechanics, 2003, 19, 295-309.	0.8	3
359	Prehension synergies: a study of digit force adjustments to the continuously varied load force exerted on a partially constrained hand-held object. Experimental Brain Research, 2009, 197, 1-13.	1.5	3
360	Coordination of Contact Forces During Multifinger Static Prehension. Journal of Applied Biomechanics, 2011, 27, 87-98.	0.8	3

#	Article	IF	Citations
361	Positional errors introduced by transient perturbations applied to a multi-joint limb. Neuroscience Letters, 2015, 595, 104-107.	2.1	3
362	Posture. , 2016, , 305-333.		3
363	Unintentional force changes in cyclical tasks performed by an abundant system: Empirical observations and a dynamical model. Neuroscience, 2017, 350, 94-109.	2.3	3
364	Feed-forward control of a redundant motor system. Biological Cybernetics, 2006, 95, 271.	1.3	3
365	Optimality, Stability, and Agility of Human Movement: New Optimality Criterion and Trade-Offs. Motor Control, 2023, 27, 123-159.	0.6	3
366	Toward peaceful coexistence of adaptive central strategies and medical professionals. Behavioral and Brain Sciences, 1996, 19, 94-106.	0.7	2
367	The notions of joint stiffness and synaptic plasticity in motor memory. Behavioral and Brain Sciences, 1996, 19, 465-466.	0.7	2
368	Indices of nonlinearity in finger force interaction. Biological Cybernetics, 2004, 90, 264-271.	1.3	2
369	14-3-3. , 2008, , 1-1.		2
370	Directional Variability of the Isometric Force Vector Produced by the Human Hand in Multijoint Planar Tasks. Journal of Motor Behavior, 2011, 43, 451-463.	0.9	2
371	A Logarithmic Speed-Difficulty Trade-off in Speech Production. Motor Control, 2011, 15, 52-67.	0.6	2
372	Why did Grandpa drop the glass?. Journal of Applied Physiology, 2012, 112, 1093-1094.	2.5	2
373	Control with muscle activations. , 2012, , 93-111.		2
374	Effects of practice and adaptation. , 2012, , 261-283.		2
375	Fifty Years of Physics of Living Systems. Advances in Experimental Medicine and Biology, 2016, 957, 81-103.	1.6	2
376	Unintentional movements induced by sequential transient perturbations in a multi-joint positional task. Human Movement Science, 2016, 46, 1-9.	1.4	2
377	Recent Advances in the Neural Control of Movements: Lessons for Functional Recovery. Physical Therapy Research, 2022, 25, 1-11.	0.9	2
378	Joint Torque. , 2016, , 3-24.		2

#	Article	IF	Citations
379	Human Movement: In Search of Borderlands Between Philosophy and Physics. Kinesiology Review, 2022, 11, 179-190.	0.6	2
380	Unintentional force drifts across the human fingers: implications for the neural control of finger tasks. Experimental Brain Research, 2022, 240, 751-761.	1.5	2
381	Flawed kinematic models cannot provide insight into the nature of motor variability. Behavioral and Brain Sciences, 1997, 20, 314-315.	0.7	1
382	Computational ideas developed within the control theory have limited relevance to control processes in living systems. Behavioral and Brain Sciences, 2004, 27, 409-409.	0.7	1
383	Speed-difficulty trade-off in speech: Chinese versus English. Experimental Brain Research, 2011, 211, 193-205.	1.5	1
384	Motor Synergy. , 2016, , 205-245.		1
385	A physicist's view on biological synergies. Physics of Life Reviews, 2016, 17, 40-43.	2.8	1
386	Analytical Inverse Optimization in Two-Hand Prehensile Tasks. Journal of Motor Behavior, 2016, 48, 424-434.	0.9	1
387	Performance drifts in two-finger cyclical force production tasks performed by one and two actors. Experimental Brain Research, 2018, 236, 779-794.	1.5	1
388	Stability of Action and Kinesthetic Perception in Parkinsonâ€™s Disease. Journal of Human Kinetics, 2021, 76, 145-159.	1.5	1
389	Production and Perception of Intentional and Unintentional Actions. Journal of Human Kinetics, 2021, 76, 51-66.	1.5	1
390	Bernsteinâ€™s Philosophy of Time: An Unknown Manuscript by Nikolai Bernstein (1949). Motor Control, 2021, 25, 315-336.	0.6	1
391	Motor Control: Creating a Natural Science of Biological Movement. Kinesiology Review, 2021, 10, 257-263.	0.6	1
392	The first world motor control day. Human Movement Science, 1993, 12, 713-714.	1.4	0
393	Equilibrium-point control? Yes! Deterministic mechanisms of control? No!. Behavioral and Brain Sciences, 1995, 18, 765-766.	0.7	0
394	Motor Control and Sensory Motor Integration (Advances in Psychology Series, Volume III). Motor Control, 1997, 1, 192-196.	0.6	0
395	Does controlling movement require intelligence?. Behavioral and Brain Sciences, 1997, 20, 533-536.	0.7	0
396	Mirror writing: Adults making A-non-B errors?. Behavioral and Brain Sciences, 2001, 24, 46-46.	0.7	0

#	Article	IF	Citations
397	The human central nervous system needs time to organize task-specific covariation of finger forces. Neuroscience Letters, 2003, 353, 72-72.	2.1	0
398	Brain Mechanisms for the Integration of Posture and Movement: (Progress in Brain Research, vol.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Co., Amsterdam. ISBN: 0-444-51389-2.. Motor Control, 2004, 8, 359-363.	0.6	0
399	Control of single-joint movements with a reversal. Journal of Electromyography and Kinesiology, 2005, 15, 406-417.	1.7	0
400	Movement System VariabilityEdited by Davids Keith, Bennett Simon, and Newell Karl M. Published in 2006 by Human Kinetics, Inc., Champaign, IL. ISBN: 0-7360-44825.. Motor Control, 2006, 10, 197-199.	0.6	0
401	Two Aspects of Motor Learning. Advances in Psychology, 2008, 139, 155-166.	0.1	0
402	Motor Control Summer School: The First Ten Years. Motor Control, 2015, 19, 105-107.	0.6	0
403	Redundancy and Abundance. , 2016, , 177-204.		0
404	Grasping. , 2016, , 335-363.		0
405	Motor Program. , 2016, , 275-301.		0
406	Slobodan Jaric (1951â€“2018). Motor Control, 2019, 23, 145-148.	0.6	0
407	Motor Control: A Young Field with Many Facets (Introduction to the Special Issue). Journal of Human Kinetics, 2021, 76, 5-8.	1.5	0
408	Optimality and stability of human behavior. Physics of Life Reviews, 2021, 38, 145-149.	2.8	0
409	Equilibrium-Point Hypothesis. , 2016, , 247-273.		0
410	The Hand: Shall We Ever Understand How It Works?. Motor Control, 2015, 19, 108-126.	0.6	0
411	Motor Control Summer School: The First Ten Years. Motor Control, 2015, 19, 105-107.	0.6	0
412	Abnormal motor patterns in the framework of the equilibrium-point hypothesis: a cause for dystonic movements?. Biological Cybernetics, 1994, 71, 87-94.	1.3	0
413	The legacy of Gerald L. Gottlieb in human movement neuroscience. Journal of Neurophysiology, 2022, 128, 148-159.	1.8	0