Mark L Latash

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16,488 65 408 109 h-index g-index citations papers 7.19 420 17,954 2.5 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
408	Intrathecal baclofen for severe spinal spasticity. New England Journal of Medicine, 1989, 320, 1517-21	59.2	609
407	Motor control strategies revealed in the structure of motor variability. <i>Exercise and Sport Sciences Reviews</i> , 2002 , 30, 26-31	6.7	530
406	Toward a new theory of motor synergies. <i>Motor Control</i> , 2007 , 11, 276-308	1.3	507
405	The bliss (not the problem) of motor abundance (not redundancy). <i>Experimental Brain Research</i> , 2012 , 217, 1-5	2.3	341
404	Joint stiffness: Myth or reality?. Human Movement Science, 1993, 12, 653-692	2.4	330
403	Enslaving effects in multi-finger force production. <i>Experimental Brain Research</i> , 2000 , 131, 187-95	2.3	299
402	What are flormal movements[In atypical populations?. Behavioral and Brain Sciences, 1996, 19, 55-68	0.9	275
401	Identifying the control structure of multijoint coordination during pistol shooting. <i>Experimental Brain Research</i> , 2000 , 135, 382-404	2.3	272
400	Synergy 2008 ,		225
399	Motor synergies and the equilibrium-point hypothesis. <i>Motor Control</i> , 2010 , 14, 294-322	1.3	217
398	Structure of motor variability in marginally redundant multifinger force production tasks. <i>Experimental Brain Research</i> , 2001 , 141, 153-65	2.3	217
397	On the problem of adequate language in motor control. <i>Motor Control</i> , 1998 , 2, 306-13	1.3	210
396	Muscle synergies during shifts of the center of pressure by standing persons. <i>Experimental Brain Research</i> , 2003 , 152, 281-92	2.3	204
395	Coordinated force production in multi-finger tasks: finger interaction and neural network modeling. <i>Biological Cybernetics</i> , 1998 , 79, 139-50	2.8	194
394	Interaction of afferent and efferent signals underlying joint position sense: empirical and theoretical approaches. <i>Journal of Motor Behavior</i> , 1982 , 14, 174-93	1.4	174
393	Electromechanical delay: An experimental artifact. <i>Journal of Electromyography and Kinesiology</i> , 1992 , 2, 59-68	2.5	173
392	Anticipatory postural adjustments in conditions of postural instability. <i>Electroencephalography and Clinical Neurophysiology - Electromyography and Motor Control</i> , 1998 , 109, 350-9		147

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391	Age-related changes in finger coordination in static prehension tasks. <i>Journal of Applied Physiology</i> , 2004 , 97, 213-24	3.7	142
390	Testing hypotheses and the advancement of science: recent attempts to falsify the equilibrium point hypothesis. <i>Experimental Brain Research</i> , 2005 , 161, 91-103	2.3	140
389	Muscle synergies during shifts of the center of pressure by standing persons: identification of muscle modes. <i>Biological Cybernetics</i> , 2003 , 89, 152-61	2.8	139
388	Understanding finger coordination through analysis of the structure of force variability. <i>Biological Cybernetics</i> , 2002 , 86, 29-39	2.8	138
387	Structure of joint variability in bimanual pointing tasks. Experimental Brain Research, 2002, 143, 11-23	2.3	128
386	A mode hypothesis for finger interaction during multi-finger force-production tasks. <i>Biological Cybernetics</i> , 2003 , 88, 91-8	2.8	128
385	The emergence and disappearance of multi-digit synergies during force-production tasks. <i>Experimental Brain Research</i> , 2005 , 164, 260-70	2.3	123
384	Multifinger prehension: an overview. <i>Journal of Motor Behavior</i> , 2008 , 40, 446-76	1.4	121
383	A central back-coupling hypothesis on the organization of motor synergies: a physical metaphor and a neural model. <i>Biological Cybernetics</i> , 2005 , 92, 186-91	2.8	121
382	Effects of age and gender on finger coordination in MVC and submaximal force-matching tasks. <i>Journal of Applied Physiology</i> , 2003 , 94, 259-70	3.7	120
381	Anticipatory covariation of finger forces during self-paced and reaction time force production. <i>Neuroscience Letters</i> , 2005 , 381, 92-6	3.3	115
380	The effects of instability and additional hand support on anticipatory postural adjustments in leg, trunk, and arm muscles during standing. <i>Experimental Brain Research</i> , 2000 , 135, 81-93	2.3	111
379	Synergies in Health and Disease: Relations to Adaptive Changes in Motor Coordination. <i>Physical Therapy</i> , 2006 , 86, 1151-1160	3.3	109
378	Anticipatory postural adjustments during self-paced and reaction-time movements. <i>Experimental Brain Research</i> , 1998 , 121, 7-19	2.3	108
377	Prehension synergies: trial-to-trial variability and hierarchical organization of stable performance. <i>Experimental Brain Research</i> , 2003 , 152, 173-84	2.3	105
376	Changes in multifinger interaction and coordination in Parkinson's disease. <i>Journal of Neurophysiology</i> , 2012 , 108, 915-24	3.2	101
375	Finger coordination during discrete and oscillatory force production tasks. <i>Experimental Brain Research</i> , 2002 , 146, 419-32	2.3	96
374	Motor redundancy during maximal voluntary contraction in four-finger tasks. <i>Experimental Brain Research</i> , 1998 , 122, 71-8	2.3	95

373	Motor control theories and their applications. <i>Medicina (Lithuania)</i> , 2010 , 46, 382	3.1	92
372	Learning multi-finger synergies: an uncontrolled manifold analysis. <i>Experimental Brain Research</i> , 2004 , 157, 336-50	2.3	92
371	Force and torque production in static multifinger prehension: biomechanics and control. I. Biomechanics. <i>Biological Cybernetics</i> , 2002 , 87, 50-7	2.8	92
370	Prehension synergies. Exercise and Sport Sciences Reviews, 2004, 32, 75-80	6.7	92
369	Finger interaction during accurate multi-finger force production tasks in young and elderly persons. <i>Experimental Brain Research</i> , 2004 , 156, 282-92	2.3	91
368	Two aspects of feedforward postural control: anticipatory postural adjustments and anticipatory synergy adjustments. <i>Journal of Neurophysiology</i> , 2011 , 105, 2275-88	3.2	90
367	Stages in learning motor synergies: a view based on the equilibrium-point hypothesis. <i>Human Movement Science</i> , 2010 , 29, 642-54	2.4	90
366	Finger coordination in persons with Down syndrome: atypical patterns of coordination and the effects of practice. <i>Experimental Brain Research</i> , 2002 , 146, 345-55	2.3	89
365	Effects of altering initial position on movement direction and extent. <i>Journal of Neurophysiology</i> , 2003 , 89, 401-15	3.2	88
364	Effects of different types of light touch on postural sway. Experimental Brain Research, 2002, 147, 71-9	2.3	88
363	Uncontrolled manifold analysis of single trials during multi-finger force production by persons with and without Down syndrome. <i>Experimental Brain Research</i> , 2003 , 153, 45-58	2.3	87
362	Muscle modes during shifts of the center of pressure by standing persons: effect of instability and additional support. <i>Experimental Brain Research</i> , 2004 , 157, 18-31	2.3	86
361	Age effects on force produced by intrinsic and extrinsic hand muscles and finger interaction during MVC tasks. <i>Journal of Applied Physiology</i> , 2003 , 95, 1361-9	3.7	85
360	Joint angle variability in 3D bimanual pointing: uncontrolled manifold analysis. <i>Experimental Brain Research</i> , 2005 , 163, 44-57	2.3	85
359	Neural control of movement stability: Lessons from studies of neurological patients. <i>Neuroscience</i> , 2015 , 301, 39-48	3.9	81
358	Changes in postural sway and its fractions in conditions of postural instability. <i>Journal of Applied Biomechanics</i> , 2006 , 22, 51-60	1.2	81
357	Motor control goes beyond physics: differential effects of gravity and inertia on finger forces during manipulation of hand-held objects. <i>Experimental Brain Research</i> , 2005 , 162, 300-8	2.3	81
356	Muscle modes and synergies during voluntary body sway. <i>Experimental Brain Research</i> , 2007 , 179, 533-5	50 .3	79

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355	The relation between posture and movement: A study of a simple synergy in a two-joint task. Human Movement Science, 1995 , 14, 79-107	2.4	79	
354	An equilibrium-point model for fast, single-joint movement: II. Similarity of single-joint isometric and isotonic descending commands. <i>Journal of Motor Behavior</i> , 1991 , 23, 179-91	1.4	79	
353	The role of kinematic redundancy in adaptation of reaching. Experimental Brain Research, 2007, 176, 54	- 69 3	77	
352	Practice and transfer effects during fast single-joint elbow movements in individuals with Down syndrome. <i>Physical Therapy</i> , 1994 , 74, 1000-12; discussion 1012-6	3.3	77	
351	Age-related changes in multifinger synergies in accurate moment of force production tasks. <i>Journal of Applied Physiology</i> , 2007 , 102, 1490-501	3.7	76	
350	Prehension synergies in three dimensions. <i>Journal of Neurophysiology</i> , 2005 , 93, 766-76	3.2	76	
349	A principle of error compensation studied within a task of force production by a redundant set of fingers. <i>Experimental Brain Research</i> , 1998 , 122, 131-8	2.3	75	
348	Motor control in Down syndrome: The role of adaptation and practice. <i>Journal of Developmental and Physical Disabilities</i> , 1992 , 4, 227-261	1.5	74	
347	What do synergies do? Effects of secondary constraints on multidigit synergies in accurate force-production tasks. <i>Journal of Neurophysiology</i> , 2008 , 99, 500-13	3.2	73	
346	The principle of superposition in human prehension. <i>Robotica</i> , 2004 , 22, 231-234	2.1	69	
345	Anticipatory postural adjustments during load catching by standing subjects. <i>Clinical Neurophysiology</i> , 2001 , 112, 1250-65	4.3	69	
344	Two stages and three components of the postural preparation to action. <i>Experimental Brain Research</i> , 2011 , 212, 47-63	2.3	67	
343	Learning effects on muscle modes and multi-mode postural synergies. <i>Experimental Brain Research</i> , 2008 , 184, 323-38	2.3	64	
342	Anticipatory postural adjustments under simple and choice reaction time conditions. <i>Brain Research</i> , 2002 , 924, 184-97	3.7	64	
341	Muscle coactivation: definitions, mechanisms, and functions. <i>Journal of Neurophysiology</i> , 2018 , 120, 88-	19.4	63	
340	Movement sway: changes in postural sway during voluntary shifts of the center of pressure. <i>Experimental Brain Research</i> , 2003 , 150, 314-24	2.3	63	
339	The effects of stroke and age on finger interaction in multi-finger force production tasks. <i>Clinical Neurophysiology</i> , 2003 , 114, 1646-55	4.3	63	
338	Approaches to analysis of handwriting as a task of coordinating a redundant motor system. <i>Human Movement Science</i> , 2003 , 22, 153-71	2.4	62	

337	Age-related changes in the control of finger force vectors. <i>Journal of Applied Physiology</i> , 2010 , 109, 18	2 <i>7₃.</i> 4 1	61
336	Prehension synergies and control with referent hand configurations. <i>Experimental Brain Research</i> , 2010 , 202, 213-29	2.3	61
335	The role of action in postural preparation for loading and unloading in standing subjects. <i>Experimental Brain Research</i> , 2001 , 138, 458-66	2.3	61
334	A technique to determine friction at the fingertips. <i>Journal of Applied Biomechanics</i> , 2008 , 24, 43-50	1.2	60
333	Hierarchies of synergies: an example of two-hand, multi-finger tasks. <i>Experimental Brain Research</i> , 2007 , 179, 167-80	2.3	60
332	Two kinematic synergies in voluntary whole-body movements during standing. <i>Journal of Neurophysiology</i> , 2006 , 95, 636-45	3.2	59
331	Prehension synergies: trial-to-trial variability and principle of superposition during static prehension in three dimensions. <i>Journal of Neurophysiology</i> , 2005 , 93, 3649-58	3.2	59
330	Task-specific modulation of anticipatory postural adjustments in individuals with hemiparesis. <i>Clinical Neurophysiology</i> , 2002 , 113, 642-55	4.3	59
329	The roles of proximal and distal muscles in anticipatory postural adjustments under asymmetrical perturbations and during standing on rollerskates. <i>Clinical Neurophysiology</i> , 2000 , 111, 613-23	4.3	59
328	Feedforward postural adjustments in a simple two-joint synergy in patients with Parkinson's disease. <i>Electroencephalography and Clinical Neurophysiology - Electromyography and Motor Control</i> , 1995 , 97, 77-89		59
327	Central mechanisms of finger interaction during one- and two-hand force production at distal and proximal phalanges. <i>Brain Research</i> , 2002 , 924, 198-208	3.7	56
326	Mirror Writing: Learning, Transfer, and Implications for Internal Inverse Models. <i>Journal of Motor Behavior</i> , 1999 , 31, 107-111	1.4	56
325	An equilibrium-point model for fast, single-joint movement: I. Emergence of strategy-dependent EMG patterns. <i>Journal of Motor Behavior</i> , 1991 , 23, 163-77	1.4	56
324	Hierarchical control of static prehension: II. Multi-digit synergies. <i>Experimental Brain Research</i> , 2009 , 194, 1-15	2.3	55
323	Optimality vs. variability: an example of multi-finger redundant tasks. <i>Experimental Brain Research</i> , 2010 , 207, 119-32	2.3	55
322	Effects of motor imagery on finger force responses to transcranial magnetic stimulation. <i>Cognitive Brain Research</i> , 2004 , 20, 273-80		55
321	Force and torque production in static multifinger prehension: biomechanics and control. II. Control. <i>Biological Cybernetics</i> , 2002 , 87, 40-9	2.8	55
320	Fatigue and motor redundancy: adaptive increase in finger force variance in multi-finger tasks. Journal of Neurophysiology, 2010 , 103, 2990-3000	3.2	54

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319	Effects of intrathecal baclofen on voluntary motor control in spastic paresis. <i>Journal of Neurosurgery</i> , 1990 , 72, 388-92	3.2	53	
318	Learning motor synergies by persons with Down syndrome. <i>Journal of Intellectual Disability</i> Research, 2007 , 51, 962-71	3.2	52	
317	Processes underlying unintentional finger-force changes in the absence of visual feedback. <i>Experimental Brain Research</i> , 2015 , 233, 711-21	2.3	51	
316	Effects of olivo-ponto-cerebellar atrophy (OPCA) on finger interaction and coordination. <i>Clinical Neurophysiology</i> , 2013 , 124, 991-8	4.3	51	
315	The effects of strength training on finger strength and hand dexterity in healthy elderly individuals. <i>Journal of Applied Physiology</i> , 2008 , 105, 1166-78	3.7	51	
314	Elderly show decreased adjustments of motor synergies in preparation to action. <i>Clinical Biomechanics</i> , 2007 , 22, 44-51	2.2	51	
313	Changes in finger coordination and responses to single pulse TMS of motor cortex during practice of a multifinger force production task. <i>Experimental Brain Research</i> , 2003 , 151, 60-71	2.3	51	
312	Feed-forward control of a redundant motor system. <i>Biological Cybernetics</i> , 2006 , 95, 271-80	2.8	50	
311	Finger force vectors in multi-finger prehension. <i>Journal of Biomechanics</i> , 2003 , 36, 1745-9	2.9	50	
310	Synergies in health and disease: relations to adaptive changes in motor coordination. <i>Physical Therapy</i> , 2006 , 86, 1151-60	3.3	50	
309	Muscle synergies during voluntary body sway: combining across-trials and within-a-trial analyses. <i>Experimental Brain Research</i> , 2006 , 174, 679-93	2.3	49	
308	Multi-muscle synergies in an unusual postural task: quick shear force production. <i>Experimental Brain Research</i> , 2008 , 187, 237-53	2.3	48	
307	The effects of muscle vibration on anticipatory postural adjustments. <i>Brain Research</i> , 2004 , 1015, 57-72	3.7	48	
306	Kinematic description of variability of fast movements: analytical and experimental approaches. <i>Biological Cybernetics</i> , 1993 , 69, 485-492	2.8	48	
305	An analytical approach to the problem of inverse optimization with additive objective functions: an application to human prehension. <i>Journal of Mathematical Biology</i> , 2010 , 61, 423-53	2	47	
304	Changes in the force-sharing pattern induced by modifications of visual feedback during force production by a set of fingers. <i>Experimental Brain Research</i> , 1998 , 123, 255-62	2.3	47	
303	Flexible muscle modes and synergies in challenging whole-body tasks. <i>Experimental Brain Research</i> , 2008 , 189, 171-87	2.3	47	
302	Internal forces during object manipulation. Experimental Brain Research, 2005, 165, 69-83	2.3	47	

301	Towards physics of neural processes and behavior. <i>Neuroscience and Biobehavioral Reviews</i> , 2016 , 69, 136-46	9	47
300	Do synergies decrease force variability? A study of single-finger and multi-finger force production. <i>Experimental Brain Research</i> , 2008 , 188, 411-25	2.3	46
299	Effects of friction at the digit-object interface on the digit forces in multi-finger prehension. <i>Experimental Brain Research</i> , 2006 , 172, 425-38	2.3	44
298	An equilibrium-point model of electromyographic patterns during single-joint movements based on experimentally reconstructed control signals. <i>Journal of Electromyography and Kinesiology</i> , 1994 , 4, 230	o- 4 ⊅	44
297	Impaired synergic control of posture in Parkinson's patients without postural instability. <i>Gait and Posture</i> , 2016 , 44, 209-15	2.6	43
296	An apparent contradiction: increasing variability to achieve greater precision?. <i>Experimental Brain Research</i> , 2014 , 232, 403-13	2.3	43
295	Improving finger coordination in young and elderly persons. <i>Experimental Brain Research</i> , 2013 , 226, 273-83	2.3	43
294	The effects of age on stabilization of the mediolateral trajectory of the swing foot. <i>Gait and Posture</i> , 2013 , 38, 923-8	2.6	43
293	Viscoelastic response of the finger pad to incremental tangential displacements. <i>Journal of Biomechanics</i> , 2005 , 38, 1441-9	2.9	43
292	Effects of joint immobilization on standing balance. Human Movement Science, 2009, 28, 515-28	2.4	42
291	Adjustments of prehension synergies in response to self-triggered and experimenter-triggered load and torque perturbations. <i>Experimental Brain Research</i> , 2006 , 175, 641-53	2.3	42
290	Muscle synergies involved in preparation to a step made under the self-paced and reaction time instructions. <i>Clinical Neurophysiology</i> , 2006 , 117, 41-56	4.3	42
289	Bilateral deficit and symmetry in finger force production during two-hand multifinger tasks. <i>Experimental Brain Research</i> , 2001 , 141, 530-40	2.3	42
288	Equifinality and its violations in a redundant system: multifinger accurate force production. <i>Journal of Neurophysiology</i> , 2013 , 110, 1965-73	3.2	41
287	Motor variability within a multi-effector system: experimental and analytical studies of multi-finger production of quick force pulses. <i>Experimental Brain Research</i> , 2005 , 163, 75-85	2.3	40
286	Muscle synergies involved in shifting the center of pressure while making a first step. <i>Experimental Brain Research</i> , 2005 , 167, 196-210	2.3	40
285	Stability of hand force production. I. Hand level control variables and multifinger synergies. <i>Journal of Neurophysiology</i> , 2017 , 118, 3152-3164	3.2	39
284	Practicing elements versus practicing coordination: changes in the structure of variance. <i>Journal of Motor Behavior</i> , 2012 , 44, 471-8	1.4	39

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283	The sources of two components of variance: an example of multifinger cyclic force production tasks at different frequencies. <i>Experimental Brain Research</i> , 2009 , 196, 263-77	2.3	39	
282	Unsteady steady-states: central causes of unintentional force drift. <i>Experimental Brain Research</i> , 2016 , 234, 3597-3611	2.3	38	
281	Early and late components of feed-forward postural adjustments to predictable perturbations. <i>Clinical Neurophysiology</i> , 2012 , 123, 1016-26	4.3	38	
280	Anticipatory adjustments of multi-finger synergies in preparation for self-triggered perturbations. <i>Experimental Brain Research</i> , 2006 , 174, 604-12	2.3	38	
279	Abnormal motor patterns in the framework of the equilibrium-point hypothesis: a cause for dystonic movements?. <i>Biological Cybernetics</i> , 1994 , 71, 87-94	2.8	38	
278	Motor abundance contributes to resolving multiple kinematic task constraints. <i>Motor Control</i> , 2010 , 14, 83-115	1.3	37	
277	Is voluntary control of natural postural sway possible?. <i>Journal of Motor Behavior</i> , 2008 , 40, 179-85	1.4	37	
276	Motor control theories and their applications. <i>Medicina (Lithuania)</i> , 2010 , 46, 382-92	3.1	37	
275	Factors affecting grip force: anatomy, mechanics, and referent configurations. <i>Experimental Brain Research</i> , 2014 , 232, 1219-31	2.3	36	
274	Anticipatory postural adjustments and anticipatory synergy adjustments: preparing to a postural perturbation with predictable and unpredictable direction. <i>Experimental Brain Research</i> , 2017 , 235, 713	3- 73 0	36	
273	Independent control of joint stiffness in the framework of the equilibrium-point hypothesis. <i>Biological Cybernetics</i> , 1992 , 67, 377-84	2.8	36	
272	Prehension synergies and hand function in early-stage Parkinson's disease. <i>Experimental Brain Research</i> , 2015 , 233, 425-40	2.3	35	
271	Age-related changes in optimality and motor variability: an example of multifinger redundant tasks. <i>Experimental Brain Research</i> , 2011 , 212, 1-18	2.3	35	
270	Multi-muscle synergies in a dual postural task: evidence for the principle of superposition. <i>Experimental Brain Research</i> , 2010 , 202, 457-71	2.3	35	
269	Finger inter-dependence: linking the kinetic and kinematic variables. <i>Human Movement Science</i> , 2008 , 27, 408-22	2.4	35	
268	Evolution of Motor Control: From Reflexes and Motor Programs to the Equilibrium-Point Hypothesis. <i>Journal of Human Kinetics</i> , 2008 , 19, 3-24	2.6	35	
267	Prehension synergies during nonvertical grasping, I: experimental observations. <i>Biological Cybernetics</i> , 2004 , 91, 148-58	2.8	35	
266	Anticipatory postural adjustments during self-initiated perturbations of different magnitude triggered by a standard motor action. <i>Electroencephalography and Clinical Neurophysiology - Electromyography and Motor Control</i> , 1996 , 101, 497-503		35	

265	Do synergies improve accuracy? A study of speed-accuracy trade-offs during finger force production. <i>Motor Control</i> , 2008 , 12, 151-72	1.3	34
264	The use of flexible arm muscle synergies to perform an isometric stabilization task. <i>Clinical Neurophysiology</i> , 2007 , 118, 525-37	4.3	34
263	Biological Movement and Laws of Physics. <i>Motor Control</i> , 2017 , 21, 327-344	1.3	33
262	The effects of practice on coordination. <i>Exercise and Sport Sciences Reviews</i> , 2014 , 42, 37-42	6.7	33
261	Emerging and disappearing synergies in a hierarchically controlled system. <i>Experimental Brain Research</i> , 2007 , 183, 259-70	2.3	33
260	Hand dominance and multi-finger synergies. <i>Neuroscience Letters</i> , 2006 , 409, 200-4	3.3	33
259	Is the thumb a fifth finger? A study of digit interaction during force production tasks. <i>Experimental Brain Research</i> , 2005 , 160, 203-13	2.3	33
258	On the nature of unintentional action: a study of force/moment drifts during multifinger tasks. <i>Journal of Neurophysiology</i> , 2016 , 116, 698-708	3.2	33
257	Multi-finger prehension: control of a redundant mechanical system. <i>Advances in Experimental Medicine and Biology</i> , 2009 , 629, 597-618	3.6	33
256	Effects of unilateral stroke on multi-finger synergies and their feed-forward adjustments. <i>Neuroscience</i> , 2016 , 319, 194-205	3.9	32
255	Dopaminergic modulation of motor coordinaton in Parkinson's disease. <i>Parkinsonism and Related Disorders</i> , 2014 , 20, 64-8	3.6	32
254	Unintentional movements produced by back-coupling between the actual and referent body configurations: violations of equifinality in multi-joint positional tasks. <i>Experimental Brain Research</i> , 2014 , 232, 3847-59	2.3	32
253	Motor equivalence (ME) during reaching: is ME observable at the muscle level?. <i>Motor Control</i> , 2013 , 17, 145-75	1.3	32
252	Manipulation of a fragile object. Experimental Brain Research, 2010, 202, 413-30	2.3	32
251	End-state comfort and joint configuration variance during reaching. <i>Experimental Brain Research</i> , 2013 , 225, 431-42	2.3	31
250	Fitts' Law in early postural adjustments. <i>Neuroscience</i> , 2013 , 231, 61-9	3.9	31
249	A study of a bimanual synergy associated with holding an object. <i>Human Movement Science</i> , 1998 , 17, 753-779	2.4	31
248	The human central nervous system needs time to organize task-specific covariation of finger forces. <i>Neuroscience Letters</i> , 2003 , 353, 72-4	3.3	31

247	Stability of multifinger action in different state spaces. <i>Journal of Neurophysiology</i> , 2014 , 112, 3209-18	3.2	30
246	Finger coordination during moment production on a mechanically fixed object. <i>Experimental Brain Research</i> , 2004 , 157, 457-67	2.3	30
245	Synergy as a new and sensitive marker of basal ganglia dysfunction: A study of asymptomatic welders. <i>NeuroToxicology</i> , 2016 , 56, 76-85	4.4	30
244	Effects of muscle fatigue on multi-muscle synergies. <i>Experimental Brain Research</i> , 2011 , 214, 335-50	2.3	29
243	Prehension synergies during nonvertical grasping, II: Modeling and optimization. <i>Biological Cybernetics</i> , 2004 , 91, 231-42	2.8	29
242	Anticipatory postural adjustments associated with lateral and rotational perturbations during standing. <i>Journal of Electromyography and Kinesiology</i> , 2001 , 11, 39-51	2.5	29
241	The basis of a simple synergy: reconstruction of joint equilibrium trajectories during unrestrained arm movements. <i>Human Movement Science</i> , 1999 , 18, 3-30	2.4	29
240	Finger interactions studied with transcranial magnetic stimulation during multi-finger force production tasks. <i>Clinical Neurophysiology</i> , 2003 , 114, 1445-55	4.3	28
239	Motor equivalence during multi-finger accurate force production. <i>Experimental Brain Research</i> , 2015 , 233, 487-502	2.3	27
238	Effects of postural task requirements on the speed-accuracy trade-off. <i>Experimental Brain Research</i> , 2007 , 180, 457-67	2.3	27
237	Relations between surface EMG of extrinsic flexors and individual finger forces support the notion of muscle compartments. <i>European Journal of Applied Physiology</i> , 2002 , 88, 185-8	3.4	27
236	Early postural adjustments in preparation to whole-body voluntary sway. <i>Journal of Electromyography and Kinesiology</i> , 2012 , 22, 110-6	2.5	26
235	Maintaining rotational equilibrium during object manipulation: linear behavior of a highly non-linear system. <i>Experimental Brain Research</i> , 2006 , 169, 519-31	2.3	26
234	Tangential load sharing among fingers during prehension. <i>Ergonomics</i> , 2004 , 47, 876-89	2.9	26
233	The organization of quick corrections within a two-joint synergy in conditions of unexpected blocking and release of a fast movement. <i>Clinical Neurophysiology</i> , 2000 , 111, 975-87	4.3	26
232	Dopaminergic modulation of multi-muscle synergies in postural tasks performed by patients with Parkinson's disease. <i>Journal of Electromyography and Kinesiology</i> , 2017 , 33, 20-26	2.5	25
231	Virtual reality: a fascinating tool for motor rehabilitation (to be used with caution). <i>Disability and Rehabilitation</i> , 1998 , 20, 104-5	2.4	25
230	Changes in voluntary motor control induced by intrathecal baclofen in patients with spasticity of different etiology. <i>Physiotherapy Research International</i> , 1996 , 1, 229-46	1.8	25

229	Optimality versus variability: effect of fatigue in multi-finger redundant tasks. <i>Experimental Brain Research</i> , 2012 , 216, 591-607	2.3	24
228	Anticipatory synergy adjustments in preparation to self-triggered perturbations in elderly individuals. <i>Journal of Applied Biomechanics</i> , 2008 , 24, 175-9	1.2	24
227	Postural synergies and their development. <i>Neural Plasticity</i> , 2005 , 12, 119-30; discussion 263-72	3.3	24
226	Finger Coordination and Bilateral Deficit during Two-Hand Force Production Tasks Performed by Right-Handed Subjects. <i>Journal of Applied Biomechanics</i> , 2000 , 16, 379-391	1.2	24
225	A new book by N. A. Bernstein: "On dexterity and its development". <i>Journal of Motor Behavior</i> , 1994 , 26, 56-62	1.4	24
224	Hierarchies of Synergies in Human Movements. <i>Kinesiology</i> , 2008 , 40, 29-38	1	24
223	Motor equivalence and structure of variance: multi-muscle postural synergies in Parkinson's disease. <i>Experimental Brain Research</i> , 2017 , 235, 2243-2258	2.3	23
222	Anticipatory synergy adjustments: preparing a quick action in an unknown direction. <i>Experimental Brain Research</i> , 2013 , 226, 565-73	2.3	23
221	Postural control during upper body locomotor-like movements: similar synergies based on dissimilar muscle modes. <i>Experimental Brain Research</i> , 2009 , 193, 565-79	2.3	23
220	Control of finger force direction in the flexion-extension plane. <i>Experimental Brain Research</i> , 2005 , 161, 307-15	2.3	23
219	Plastic changes in interhemispheric inhibition with practice of a two-hand force production task: a transcranial magnetic stimulation study. <i>Neuroscience Letters</i> , 2005 , 374, 104-8	3.3	23
218	Prehension stability: experiments with expanding and contracting handle. <i>Journal of Neurophysiology</i> , 2006 , 95, 2513-29	3.2	23
217	Reversals of anticipatory postural adjustments during voluntary sway in humans. <i>Journal of Physiology</i> , 2005 , 565, 675-84	3.9	23
216	Reconstruction of equilibrium trajectories and joint stiffness patterns during single-joint voluntary movements under different instructions. <i>Biological Cybernetics</i> , 1994 , 71, 441-50	2.8	23
215	Challenging gait leads to stronger lower-limb kinematic synergies: The effects of walking within a more narrow pathway. <i>Neuroscience Letters</i> , 2015 , 600, 110-4	3.3	22
214	Finger force changes in the absence of visual feedback in patients with Parkinson's disease. <i>Clinical Neurophysiology</i> , 2016 , 127, 684-692	4.3	22
213	Equifinality and its violations in a redundant system: control with referent configurations in a multi-joint positional task. <i>Motor Control</i> , 2014 , 18, 405-24	1.3	22
212	Effects of Parkinson's disease on optimization and structure of variance in multi-finger tasks. Experimental Brain Research, 2013 , 231, 51-63	2.3	22

211	Manipulation of a fragile object by elderly individuals. Experimental Brain Research, 2011, 212, 505-16	2.3	22
210	Analyses of joint variance related to voluntary whole-body movements performed in standing. Journal of Neuroscience Methods, 2010 , 188, 89-96	3	22
209	Adjustments to local friction in multifinger prehension. <i>Journal of Motor Behavior</i> , 2007 , 39, 276-90	1.4	22
208	Learning a pointing task with a kinematically redundant limb: Emerging synergies and patterns of final position variability. <i>Human Movement Science</i> , 1999 , 18, 819-838	2.4	22
207	Laws of nature that define biological action and perception. <i>Physics of Life Reviews</i> , 2021 , 36, 47-67	2.1	22
206	The effects of aging on the rambling and trembling components of postural sway: effects of motor and sensory challenges. <i>Gait and Posture</i> , 2013 , 38, 637-42	2.6	21
205	Intentional and unintentional multi-joint movements: their nature and structure of variance. <i>Neuroscience</i> , 2015 , 289, 181-93	3.9	21
204	Movements that are both variable and optimal. <i>Journal of Human Kinetics</i> , 2012 , 34, 5-13	2.6	21
203	Mechanical analysis and hierarchies of multidigit synergies during accurate object rotation. <i>Motor Control</i> , 2009 , 13, 251-79	1.3	21
202	Finger interaction during multi-finger tasks involving finger addition and removal. <i>Experimental Brain Research</i> , 2003 , 150, 230-6	2.3	21
201	Grip-force modulation in multi-finger prehension during wrist flexion and extension. <i>Experimental Brain Research</i> , 2013 , 227, 509-22	2.3	20
200	Optimality and stability of intentional and unintentional actions: I. Origins of drifts in performance. <i>Experimental Brain Research</i> , 2017 , 235, 481-496	2.3	20
199	Grip forces during object manipulation: experiment, mathematical model, and validation. <i>Experimental Brain Research</i> , 2011 , 213, 125-39	2.3	20
198	Prehension synergies in the grasps with complex friction patterns: local versus synergic effects and the template control. <i>Journal of Neurophysiology</i> , 2007 , 98, 16-28	3.2	20
197	Effects of visual feedback and memory on unintentional drifts in performance during finger-pressing tasks. <i>Experimental Brain Research</i> , 2017 , 235, 1149-1162	2.3	19
196	Force illusions and drifts observed during muscle vibration. <i>Journal of Neurophysiology</i> , 2018 , 119, 326-	3 <u>3</u> .6	19
195	Interaction of finger enslaving and error compensation in multiple finger force production. <i>Experimental Brain Research</i> , 2009 , 192, 293-8	2.3	19
194	Time evolution of the organization of multi-muscle postural responses to sudden changes in the external force applied at the trunk level. <i>Neuroscience Letters</i> , 2008 , 438, 238-41	3.3	19

193	Anticipatory control of head posture. Clinical Neurophysiology, 2007, 118, 1802-14	4.3	19
192	Is there a timing synergy during multi-finger production of quick force pulses?. <i>Experimental Brain Research</i> , 2004 , 159, 65-71	2.3	19
191	Stability of hand force production. II. Ascending and descending synergies. <i>Journal of Neurophysiology</i> , 2018 , 120, 1045-1060	3.2	19
190	Age effects on rotational hand action. <i>Human Movement Science</i> , 2012 , 31, 502-18	2.4	18
189	Finger interaction in a three-dimensional pressing task. <i>Experimental Brain Research</i> , 2010 , 203, 101-18	2.3	18
188	Changes in the symmetry of rapid movements. Effects of velocity and viscosity. <i>Experimental Brain Research</i> , 1998 , 120, 52-60	2.3	18
187	Effects of practice on final position reproduction. Experimental Brain Research, 1992, 91, 129-34	2.3	18
186	The nature of constant and cyclic force production: unintentional force-drift characteristics. <i>Experimental Brain Research</i> , 2016 , 234, 197-208	2.3	17
185	The synergic control of multi-finger force production: stability of explicit and implicit task components. <i>Experimental Brain Research</i> , 2017 , 235, 1-14	2.3	17
184	Changes in Multidigit Synergies and Their Feed-Forward Adjustments in Multiple Sclerosis. <i>Journal of Motor Behavior</i> , 2017 , 49, 218-228	1.4	17
183	Hierarchical control of static prehension: I. Biomechanics. Experimental Brain Research, 2009, 193, 615-3	12.3	17
182	Rotational equilibrium during multi-digit pressing and prehension. <i>Motor Control</i> , 2004 , 8, 392-404	1.3	17
181	Synergic control of a single muscle: The example of flexor digitorum superficialis. <i>Journal of Physiology</i> , 2021 , 599, 1261-1279	3.9	17
180	Stabilization of cat paw trajectory during locomotion. <i>Journal of Neurophysiology</i> , 2014 , 112, 1376-91	3.2	16
179	Joint coordination during bimanual transport of real and imaginary objects. <i>Neuroscience Letters</i> , 2009 , 456, 80-4	3.3	16
178	Bilateral multifinger deficits in symmetric key-pressing tasks. <i>Experimental Brain Research</i> , 2001 , 140, 86-94	2.3	16
177	Modulation of simple reaction time on the background of an oscillatory action: implications for synergy organization. <i>Experimental Brain Research</i> , 2000 , 131, 85-100	2.3	16
176	Are there deficits in anticipatory postural adjustments in Parkinson's disease?. <i>NeuroReport</i> , 1996 , 7, 1794-6	1.7	16

175	On Primitives in Motor Control. <i>Motor Control</i> , 2020 , 24, 318-346	1.3	16
174	Effects of Voluntary Agonist-Antagonist Coactivation on Stability of Vertical Posture. <i>Motor Control</i> , 2019 , 23, 304-326	1.3	16
173	Perceptual and Motor Effects of Muscle Co-activation in a Force Production Task. <i>Neuroscience</i> , 2020 , 437, 34-44	3.9	15
172	Prehension of half-full and half-empty glasses: time and history effects on multi-digit coordination. <i>Experimental Brain Research</i> , 2011 , 209, 571-85	2.3	15
171	Multi-digit maximum voluntary torque production on a circular object. <i>Ergonomics</i> , 2007 , 50, 660-75	2.9	15
170	Digit force adjustments during finger addition/removal in multi-digit prehension. <i>Experimental Brain Research</i> , 2008 , 189, 345-59	2.3	15
169	Accurate production of time-varying patterns of the moment of force in multi-finger tasks. <i>Experimental Brain Research</i> , 2006 , 175, 68-82	2.3	15
168	Reconstruction of equilibrium trajectories during whole-body movements. <i>Biological Cybernetics</i> , 1999 , 80, 195-204	2.8	15
167	Stability of Kinesthetic Perception in Efferent-Afferent Spaces: The Concept of Iso-perceptual Manifold. <i>Neuroscience</i> , 2018 , 372, 97-113	3.9	14
166	Stability of steady hand force production explored across spaces and methods of analysis. <i>Experimental Brain Research</i> , 2018 , 236, 1545-1562	2.3	14
165	Forces and moments generated by the human arm: variability and control. <i>Experimental Brain Research</i> , 2012 , 223, 159-75	2.3	14
164	Adaptive increase in force variance during fatigue in tasks with low redundancy. <i>Neuroscience Letters</i> , 2010 , 485, 204-7	3.3	14
163	Force-stabilizing synergies in motor tasks involving two actors. <i>Experimental Brain Research</i> , 2015 , 233, 2935-49	2.3	13
162	Systemic effects of deep brain stimulation on synergic control in Parkinson's disease. <i>Clinical Neurophysiology</i> , 2018 , 129, 1320-1332	4.3	13
161	Enslaving in a serial chain: interactions between grip force and hand force in isometric tasks. <i>Experimental Brain Research</i> , 2014 , 232, 775-87	2.3	13
160	Effects of muscle vibration on multi-finger interaction and coordination. <i>Experimental Brain Research</i> , 2013 , 229, 103-11	2.3	13
159	Bilateral synergies in foot force production tasks. Experimental Brain Research, 2013, 227, 121-30	2.3	13
158	Matrix analyses of interaction among fingers in static force production tasks. <i>Biological Cybernetics</i> , 2003 , 89, 407-14	2.8	13

157	Changes in movement kinematics during single-joint movements against expectedly and unexpectedly changed inertial loads. <i>Human Movement Science</i> , 1999 , 18, 49-66	2.4	13
156	Motor control research in rehabilitation medicine. <i>Disability and Rehabilitation</i> , 1996 , 18, 293-9	2.4	13
155	Interpersonal synergies: static prehension tasks performed by two actors. <i>Experimental Brain Research</i> , 2016 , 234, 2267-82	2.3	13
154	Unintentional drifts during quiet stance and voluntary body sway. <i>Experimental Brain Research</i> , 2017 , 235, 2301-2316	2.3	12
153	Exploring the Concept of Iso-perceptual Manifold (IPM): A Study of Finger Force-Matching Tasks. <i>Neuroscience</i> , 2019 , 401, 130-141	3.9	12
152	Multi-finger synergies and the muscular apparatus of the hand. <i>Experimental Brain Research</i> , 2018 , 236, 1383-1393	2.3	12
151	Effects of fatigue on synergies in a hierarchical system. <i>Human Movement Science</i> , 2012 , 31, 1379-98	2.4	12
150	Finger interaction during maximal radial and ulnar deviation efforts: experimental data and linear neural network modeling. <i>Experimental Brain Research</i> , 2007 , 179, 301-12	2.3	12
149	The effects of practice on movement reproduction: Implications for models of motor control. <i>Human Movement Science</i> , 1996 , 15, 101-114	2.4	12
148	Case Studies in Neuroscience: The central and somatosensory contributions to finger interdependence and coordination: lessons from a study of a "deafferented person". <i>Journal of Neurophysiology</i> , 2019 , 121, 2083-2087	3.2	11
147	Task-specific stability of multifinger steady-state action. <i>Journal of Motor Behavior</i> , 2015 , 47, 365-77	1.4	11
146	Finger enslaving in the dominant and non-dominant hand. Human Movement Science, 2014, 33, 185-93	2.4	11
145	Radial force distribution changes associated with tangential force production in cylindrical grasping, and the importance of anatomical registration. <i>Journal of Biomechanics</i> , 2012 , 45, 218-24	2.9	11
144	Finger coordination under artificial changes in finger strength feedback: a study using analytical inverse optimization. <i>Journal of Motor Behavior</i> , 2011 , 43, 229-35	1.4	11
143	Violations of Fitts' law in a ballistic task. <i>Journal of Motor Behavior</i> , 2009 , 41, 525-8	1.4	11
142	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, 411-26	2.2	11
141	Variance components in discrete force production tasks. <i>Experimental Brain Research</i> , 2010 , 205, 335-4	92.3	11
140	Organization of drinking: postural characteristics of arm-head coordination. <i>Journal of Motor Behavior</i> , 2002 , 34, 139-50	1.4	11

139	Coupling phenomena during asynchronous submaximal two-hand, multi-finger force production tasks in humans. <i>Neuroscience Letters</i> , 2002 , 331, 75-8	3.3	11
138	Individual preferences in motor coordination seen across the two hands: relations to movement stability and optimality. <i>Experimental Brain Research</i> , 2019 , 237, 1-13	2.3	11
137	Reconstruction of the unknown optimization cost functions from experimental recordings during static multi-finger prehension. <i>Motor Control</i> , 2012 , 16, 195-228	1.3	10
136	Stability control of grasping objects with different locations of center of mass and rotational inertia. <i>Journal of Motor Behavior</i> , 2012 , 44, 169-78	1.4	10
135	Multi-digit coordination during lifting a horizontally oriented object: synergies control with referent configurations. <i>Experimental Brain Research</i> , 2012 , 222, 277-90	2.3	10
134	Contrasting effects of fatigue on multifinger coordination in young and older adults. <i>Journal of Applied Physiology</i> , 2013 , 115, 456-67	3.7	10
133	30 years later: On the problem of the relation between structure and function in the brain from a contemporary viewpoint (1996), part II. <i>Motor Control</i> , 2000 , 4, 125-49	1.3	10
132	On the origin of finger enslaving: control with referent coordinates and effects of visual feedback. Journal of Neurophysiology, 2020 , 124, 1625-1636	3.2	10
131	Distortions of the Efferent Copy during Force Perception: A Study of Force Drifts and Effects of Muscle Vibration. <i>Neuroscience</i> , 2021 , 457, 139-154	3.9	10
130	Learning to combine high variability with high precision: lack of transfer to a different task. <i>Journal of Motor Behavior</i> , 2015 , 47, 153-65	1.4	9
129	Stability of vertical posture explored with unexpected mechanical perturbations: synergy indices and motor equivalence. <i>Experimental Brain Research</i> , 2018 , 236, 1501-1517	2.3	9
128	Mechanical properties of the human hand digits: age-related differences. <i>Clinical Biomechanics</i> , 2014 , 29, 129-37	2.2	9
127	Tangential finger forces use mechanical advantage during static grasping. <i>Journal of Applied Biomechanics</i> , 2012 , 28, 78-84	1.2	9
126	Prehension synergies during smooth changes of the external torque. <i>Experimental Brain Research</i> , 2011 , 213, 493-506	2.3	9
125	Motor Control: In Search of Physics of the Living Systems. <i>Journal of Human Kinetics</i> , 2010 , 24, 7-18	2.6	9
124	Learning a motor task involving obstacles by a multi-joint, redundant limb: two synergies within one movement. <i>Journal of Electromyography and Kinesiology</i> , 1998 , 8, 169-76	2.5	9
123	Multifinger ab- and adduction strength and coordination. <i>Journal of Hand Therapy</i> , 2008 , 21, 377-85	1.6	9
122	Finger synergies during multi-finger cyclic production of moment of force. <i>Experimental Brain Research</i> , 2007 , 177, 243-54	2.3	9

121	Biomechanics as a window into the neural control of movement. <i>Journal of Human Kinetics</i> , 2016 , 52, 7-20	2.6	9
120	Quantitative analysis of multi-element synergy stabilizing performance: comparison of three methods with respect to their use in clinical studies. <i>Experimental Brain Research</i> , 2019 , 237, 453-465	2.3	9
119	Beyond rambling and trembling: effects of visual feedback on slow postural drift. <i>Experimental Brain Research</i> , 2019 , 237, 865-871	2.3	8
118	What do people match when they try to match force? Analysis at the level of hypothetical control variables. <i>Experimental Brain Research</i> , 2020 , 238, 1885-1901	2.3	8
117	Optimality and stability of intentional and unintentional actions: II. Motor equivalence and structure of variance. <i>Experimental Brain Research</i> , 2017 , 235, 457-470	2.3	8
116	Reproducibility and variability of the cost functions reconstructed from experimental recordings in multifinger prehension. <i>Journal of Motor Behavior</i> , 2012 , 44, 69-85	1.4	8
115	Effects of grasping force magnitude on the coordination of digit forces in multi-finger prehension. <i>Experimental Brain Research</i> , 2009 , 194, 115-29	2.3	8
114	Effects of transcranial magnetic stimulation on muscle activation patterns and joint kinematics within a two-joint motor synergy. <i>Brain Research</i> , 2003 , 961, 229-42	3.7	8
113	Components of the End-Effector Jerk during Voluntary Arm Movements. <i>Journal of Applied Biomechanics</i> , 2000 , 16, 14-25	1.2	8
112	Biomechanics of Vertical Posture and Control with Referent Joint Configurations. <i>Journal of Motor Behavior</i> , 2021 , 53, 72-82	1.4	8
111	Finger interdependence and unintentional force drifts: Lessons from manipulations of visual feedback. <i>Human Movement Science</i> , 2020 , 74, 102714	2.4	8
110	Finger Force Matching and Verbal Reports: Testing Predictions of the Iso-Perceptual Manifold Concept. <i>Journal of Motor Behavior</i> , 2021 , 53, 598-610	1.4	8
109	Characteristics of unintentional movements by a multijoint effector. <i>Journal of Motor Behavior</i> , 2015 , 47, 352-61	1.4	7
108	Systematic, Unintended Drifts in the Cyclic Force Produced with the Fingertips. <i>Motor Control</i> , 2018 , 22, 82-99	1.3	7
107	Synergies and Motor Equivalence in Voluntary Sway Tasks: The Effects of Visual and Mechanical Constraints. <i>Journal of Motor Behavior</i> , 2018 , 50, 492-509	1.4	7
106	Static prehension of a horizontally oriented object in three dimensions. <i>Experimental Brain Research</i> , 2012 , 216, 249-61	2.3	7
105	Optimization and variability of motor behavior in multifinger tasks: what variables does the brain use?. <i>Journal of Motor Behavior</i> , 2013 , 45, 289-305	1.4	7
104	Postural preparation to making a step: is there a 'motor program' for postural preparation?. <i>Journal of Applied Biomechanics</i> , 2007 , 23, 261-74	1.2	7

103	A device for testing the intrinsic muscles of the hand. <i>Journal of Hand Therapy</i> , 2007 , 20, 345-50	1.6	7
102	Velocity-dependent activation of postural muscles in a simple two-joint synergy. <i>Human Movement Science</i> , 1995 , 14, 351-369	2.4	7
101	Postural Preparation to Stepping: Coupled Center of Pressure Shifts in the Anterior-Posterior and Medio-Lateral Directions. <i>Journal of Human Kinetics</i> , 2016 , 54, 5-14	2.6	7
100	Unintentional changes in the apparent stiffness of the multi-joint limb. <i>Experimental Brain Research</i> , 2015 , 233, 2989-3004	2.3	6
99	Task-specific stability in muscle activation space during unintentional movements. <i>Experimental Brain Research</i> , 2014 , 232, 3645-58	2.3	6
98	Prehension synergies during fatigue of a single digit: adaptations in control with referent configurations. <i>Motor Control</i> , 2014 , 18, 278-96	1.3	6
97	Inter-limb force coupling is resistant to distorted visual feedback in chronic hemiparetic stroke. <i>Journal of Rehabilitation Medicine</i> , 2014 , 46, 206-11	3.4	6
96	Internal forces during static prehension: effects of age and grasp configuration. <i>Journal of Motor Behavior</i> , 2014 , 46, 211-22	1.4	6
95	Kinematic synergies during saccades involving whole-body rotation: a study based on the uncontrolled manifold hypothesis. <i>Human Movement Science</i> , 2010 , 29, 243-58	2.4	6
94	Similar motion of a hand-held object may trigger nonsimilar grip force adjustments. <i>Journal of Hand Therapy</i> , 2007 , 20, 300-7; quiz 308; discussion 309	1.6	6
93	Sloppy, But Acceptable, Control of Biological Movement: Algorithm-Based Stabilization of Subspaces in Abundant Spaces. <i>Journal of Human Kinetics</i> , 2019 , 67, 49-72	2.6	6
92	Efference copy in kinesthetic perception: a copy of what is it?. <i>Journal of Neurophysiology</i> , 2021 , 125, 1079-1094	3.2	6
91	Synergies at the level of motor units in single-finger and multi-finger tasks. <i>Experimental Brain Research</i> , 2021 , 239, 2905-2923	2.3	6
90	Control of finger force vectors with changes in fingertip referent coordinates. <i>Journal of Motor Behavior</i> , 2013 , 45, 15-20	1.4	5
89	Intra-Personal and Inter-Personal Kinetic Synergies During Jumping. <i>Journal of Human Kinetics</i> , 2015 , 49, 75-88	2.6	5
88	Effects of the index finger position and force production on the flexor digitorum superficialis moment arms at the metacarpophalangeal joints - a magnetic resonance imaging study. <i>Clinical Biomechanics</i> , 2012 , 27, 453-9	2.2	5
87	Two Archetypes of Motor Control Research. <i>Motor Control</i> , 2010 , 14, e41-e53	1.3	5
86	Motor Control: The Heart of Kinesiology. <i>Quest</i> , 2008 , 60, 19-30	2.2	5

85	Is there a timing synergy during multi-finger production of quick force pulses?. <i>Psychopharmacology</i> , 2004 , 177, 217-23	4.7	5
84	The equilibrium-point hypothesis is still doing fine. <i>Human Movement Science</i> , 2000 , 19, 933-938	2.4	5
83	Instruction-dependent muscle activation patterns within a two-joint synergy: separating mechanics from neurophysiology. <i>Journal of Motor Behavior</i> , 1998 , 30, 194-8	1.4	5
82	30 years later: the relation between structure and function in the brain from a contemporary point of view (1966), part I. <i>Motor Control</i> , 1999 , 3, 329-32, 342-45	1.3	5
81	Motor control: on the way to physics of living systems. <i>Advances in Experimental Medicine and Biology</i> , 2014 , 826, 1-16	3.6	5
80	Principle of Superposition in Human Prehension 2006 , 249-261		5
79	One more time about motor (and non-motor) synergies. Experimental Brain Research, 2021, 239, 2951-7	29 <u>6</u> 3	5
78	Abundant Degrees of Freedom Are Not a Problem. <i>Kinesiology Review</i> , 2018 , 7, 64-72	2	4
77	Adaptations to fatigue of a single digit violate the principle of superposition in a multi-finger static prehension task. <i>Experimental Brain Research</i> , 2013 , 225, 589-602	2.3	4
76	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. <i>Clinical Biomechanics</i> , 2013 , 28, 157-63	2.2	4
75	Is power grasping contact continuous or discrete?. Journal of Applied Biomechanics, 2013, 29, 554-62	1.2	4
74	Comparison of interfinger connection matrix computation techniques. <i>Journal of Applied Biomechanics</i> , 2013 , 29, 525-34	1.2	4
73	Digit forces in multi-digit grasps33-51		4
72	Stepping from a narrow support. Journal of Electromyography and Kinesiology, 2007, 17, 462-72	2.5	4
71	Performance-Stabilizing Synergies in a Complex Motor Skill: Analysis Based on the Uncontrolled Manifold Hypothesis. <i>Motor Control</i> , 2020 , 24, 238-252	1.3	4
70	Bernstein Desired Future and Physics of Human Movement. <i>Cognitive Systems Monographs</i> , 2015 , 287-299	0.2	4
69	Human Movements: Synergies, Stability, and Agility. Springer Tracts in Advanced Robotics, 2019, 135-15	40.5	4
68	Synergic control of action in levodopa-nalle Parkinson's disease patients: I. Multi-finger interaction and coordination. <i>Experimental Brain Research</i> , 2020 , 238, 229-245	2.3	4

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67	Synergic control of action in levodopa-nalle Parkinson's disease patients: II. Multi-muscle synergies stabilizing vertical posture. <i>Experimental Brain Research</i> , 2020 , 238, 2931-2945	2.3	4
66	Perturbation-induced fast drifts in finger enslaving. Experimental Brain Research, 2021, 239, 891-902	2.3	4
65	Changes in Finger Coordination and Hand Function with Advanced Age 2006 , 141-159		4
64	Positional errors introduced by transient perturbations applied to a multi-joint limb. <i>Neuroscience Letters</i> , 2015 , 595, 104-7	3.3	3
63	Postural sway and perceived comfort in pointing tasks. <i>Neuroscience Letters</i> , 2014 , 569, 18-22	3.3	3
62	The Hand: Shall We Ever Understand How it Works?. <i>Motor Control</i> , 2015 , 19, 108-26	1.3	3
61	Exemplary behaviors 2012 , 211-259		3
60	Coordination of contact forces during multifinger static prehension. <i>Journal of Applied Biomechanics</i> , 2011 , 27, 87-98	1.2	3
59	How long does it take to describe what one sees? The first step using picture description tasks. <i>Human Movement Science</i> , 2010 , 29, 369-85	2.4	3
58	Stability of the multi-finger prehension synergy studied with transcranial magnetic stimulation. <i>Experimental Brain Research</i> , 2008 , 190, 225-38	2.3	3
57	Analysis of a Network for Finger Interaction during Two-Hand Multi-Finger Force Production Tasks. <i>Journal of Applied Biomechanics</i> , 2003 , 19, 295-309	1.2	3
56	Neural network modeling supports a theory on the hierarchical control of prehension. <i>Neural Computing and Applications</i> , 2004 , 13, 352-359	4.8	3
55	Reciprocal and coactivation commands at the level of individual motor units in an extrinsic finger flexor-extensor muscle pair. <i>Experimental Brain Research</i> , 2021 , 1	2.3	3
54	The Nature of Finger Enslaving: New Results and Their Implications. <i>Motor Control</i> , 2021 , 25, 680-703	1.3	3
53	Unintentional force changes in cyclical tasks performed by an abundant system: Empirical observations and a dynamical model. <i>Neuroscience</i> , 2017 , 350, 94-109	3.9	2
52	Preparation to a quick whole-body action: control with referent body orientation and multi-muscle synergies. <i>Experimental Brain Research</i> , 2019 , 237, 1361-1374	2.3	2
51	Unintentional movements induced by sequential transient perturbations in a multi-joint positional task. <i>Human Movement Science</i> , 2016 , 46, 1-9	2.4	2
50	Control with muscle activations 2012 , 93-111		2

49	Effects of practice and adaptation 2012 , 261-283		2
48	A logarithmic speed-difficulty trade-off in speech production. <i>Motor Control</i> , 2011 , 15, 52-67	1.3	2
47	Directional variability of the isometric force vector produced by the human hand in multijoint planar tasks. <i>Journal of Motor Behavior</i> , 2011 , 43, 451-63	1.4	2
46	Similarities and Differences in Finger Interaction across Typical and Atypical Subpopulations. <i>Journal of Applied Biomechanics</i> , 2003 , 19, 264-270	1.2	2
45	Indices of nonlinearity in finger force interaction. <i>Biological Cybernetics</i> , 2004 , 90, 264-71	2.8	2
44	Toward peaceful coexistence of adaptive central strategies and medical professionals. <i>Behavioral and Brain Sciences</i> , 1996 , 19, 94-106	0.9	2
43	The notions of joint stiffness and synaptic plasticity in motor memory. <i>Behavioral and Brain Sciences</i> , 1996 , 19, 465-466	0.9	2
42	Understanding and Synergy: A Single Concept at Different Levels of Analysis?. <i>Frontiers in Systems Neuroscience</i> , 2021 , 15, 735406	3.5	2
41	Unintentional Force Drifts as Consequences of Indirect Force Control with Spatial Referent Coordinates. <i>Neuroscience</i> , 2021 ,	3.9	2
40	Postural Adjustments during Interactions with an Active Partner. <i>Neuroscience</i> , 2021 , 463, 14-29	3.9	2
39	Fifty Years of Physics of Living Systems. Advances in Experimental Medicine and Biology, 2016, 957, 81-1	03 .6	2
38	Analytical Inverse Optimization in Two-Hand Prehensile Tasks. <i>Journal of Motor Behavior</i> , 2016 , 48, 424	-3:44	1
37	Speed-difficulty trade-off in speech: Chinese versus English. Experimental Brain Research, 2011, 211, 19	3 ₂ 295	1
36	Prehension synergies: a study of digit force adjustments to the continuously varied load force exerted on a partially constrained hand-held object. <i>Experimental Brain Research</i> , 2009 , 197, 1-13	2.3	1
35	Flawed kinematic models cannot provide insight into the nature of motor variability. <i>Behavioral and Brain Sciences</i> , 1997 , 20, 314-315	0.9	1
34	Computational ideas developed within the control theory have limited relevance to control processes in living systems. <i>Behavioral and Brain Sciences</i> , 2004 , 27, 409-409	0.9	1
33	Unintentional force drifts across the human fingers: implications for the neural control of finger tasks <i>Experimental Brain Research</i> , 2022 , 240, 751	2.3	1
32	Feed-forward control of a redundant motor system. <i>Biological Cybernetics</i> , 2006 , 95, 271	2.8	1

31	Joint Torque 2016 , 3-24		1	
30	Bernstein's Philosophy of Time: An Unknown Manuscript by Nikolai Bernstein (1949). <i>Motor Control</i> , 2021 , 25, 315-336	1.3	1	
29	A physicist's view on biological synergies: Comment on "Hand synergies: Integration of robotics and neuroscience for understanding the control of biological and artificial hands" by Marco Santello et al. <i>Physics of Life Reviews</i> , 2016 , 17, 40-3	2.1	1	
28	Production and Perception of Intentional and Unintentional Actions. <i>Journal of Human Kinetics</i> , 2021 , 76, 51-66	2.6	1	
27	Motor Control: Creating a Natural Science of Biological Movement. <i>Kinesiology Review</i> , 2021 , 10, 257-2	63	1	
26	Optimality, Stability, and Agility of Human Movement: New Optimality Criterion and Trade-Offs <i>Motor Control</i> , 2022 , 1-37	1.3	1	
25	Effects of hand muscle function and dominance on intra-muscle synergies <i>Human Movement Science</i> , 2022 , 82, 102936	2.4	1	
24	Performance drifts in two-finger cyclical force production tasks performed by one and two actors. <i>Experimental Brain Research</i> , 2018 , 236, 779-794	2.3	0	
23	Posture 2016 , 305-333		0	
22	Stability of Action and Kinesthetic Perception in Parkinson's Disease. <i>Journal of Human Kinetics</i> , 2021 , 76, 145-159	2.6	Ο	
21	Recent Advances in the Neural Control of Movements: Lessons for Functional Recovery <i>Physical Therapy Research</i> , 2022 , 25, 1-11	1.3	0	
20	Slobodan Jaric (1951-2018). <i>Motor Control</i> , 2019 , 23, 145-148	1.3		
19	Motor Control and Sensory Motor Integration (Advances in Psychology Series, Volume III). <i>Motor Control</i> , 1997 , 1, 192-196	1.3		
18	Does controlling movement require intelligence?. Behavioral and Brain Sciences, 1997, 20, 533-536	0.9		
17	Two Aspects of Motor Learning: Learning Movements and Learning Synergies. <i>Advances in Psychology</i> , 2008 , 139, 155-166			
16	Control of single-joint movements with a reversal. <i>Journal of Electromyography and Kinesiology</i> , 2005 , 15, 406-17	2.5		
15	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 <i>Motor Control</i> , 2006 , 10, 197-199	1.3		
14	The human central nervous system needs time to organize task-specific covariation of finger forces. <i>Neuroscience Letters</i> , 2003 , 353, 72-72	3.3		

13	Brain Mechanisms for the Integration of Posture and Movement: (Progress in Brain Research, vol. 143)Edited by Mori S. , Stuart D. G. Wiesendanger M Published in 2003 by Elsevier Science Publishing Co., Amsterdam. ISBN: 0-444-51389-2 <i>Motor Control</i> , 2004 , 8, 359-363	1.3
12	Mirror writing: Adults making A-non-B errors?. <i>Behavioral and Brain Sciences</i> , 2001 , 24, 46-46	0.9
11	Equilibrium-point control? Yes! Deterministic mechanisms of control? No!. <i>Behavioral and Brain Sciences</i> , 1995 , 18, 765-766	0.9
10	Human Movement: In Search of Borderlands Between Philosophy and Physics. <i>Kinesiology Review</i> , 2022 , 1-12	2
9	Equilibrium-Point Hypothesis 2016 , 247-273	
8	Redundancy and Abundance 2016 , 177-204	
7	Grasping 2016 , 335-363	
6	Motor Synergy 2016 , 205-245	
5	Motor Program 2016 , 275-301	
4	Motor Control: A Young Field with Many Facets (Introduction to the Special Issue). <i>Journal of Human Kinetics</i> , 2021 , 76, 5-8	2.6
3	Optimality and stability of human behavior: Reply to comments on "Laws of nature that define biological action and perception". <i>Physics of Life Reviews</i> , 2021 , 38, 145-149	2.1
2	Abnormal motor patterns in the framework of the equilibrium-point hypothesis: a cause for dystonic movements?. <i>Biological Cybernetics</i> , 1994 , 71, 87-94	2.8
1	Reconstruction of equilibrium trajectories and joint stiffness patterns during single-joint voluntary movements under different instructions. <i>Biological Cybernetics</i> , 1994 , 71, 441-450	2.8