Carolynn Patten

List of Publications by Year
in descending order

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90 papers	6,170 citations	70961 41 h-index	71532 76 g-index
98 all docs	98 docs citations	98 times ranked	6047 citing authors

#	Article	IF	Citations
1	Evidence for shared neural information between muscle synergies and corticospinal efficacy. Scientific Reports, 2022, 12, .	1.6	5
2	The effect of time since stroke, gender, age, and lesion size on thalamus volume in chronic stroke: a pilot study. Scientific Reports, 2020, 10, 20488.	1.6	5
3	Musculoskeletal Model Personalization Affects Metabolic Cost Estimates for Walking. Frontiers in Bioengineering and Biotechnology, 2020, 8, 588925.	2.0	13
4	Evaluation of Synergy Extrapolation for Predicting Unmeasured Muscle Excitations from Measured Muscle Synergies. Frontiers in Computational Neuroscience, 2020, 14, 588943.	1.2	19
5	Gait asymmetry pattern following stroke determines acute response to locomotor task. Gait and Posture, 2020, 77, 300-307.	0.6	21
6	How Well Do Commonly Used Co-contraction Indices Approximate Lower Limb Joint Stiffness Trends During Gait for Individuals Post-stroke?. Frontiers in Bioengineering and Biotechnology, 2020, 8, 588908.	2.0	20
7	Lower extremity long-latency reflexes differentiate walking function after stroke. Experimental Brain Research, 2019, 237, 2595-2605.	0.7	4
8	Slower than normal walking speeds involve a pattern shift in joint and temporal coordination contributions. Experimental Brain Research, 2019, 237, 2973-2982.	0.7	6
9	Altered muscle activation patterns (AMAP): an analytical tool to compare muscle activity patterns of hemiparetic gait with a normative profile. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 21.	2.4	9
10	Pelvic excursion during walking post-stroke: A novel classification system. Gait and Posture, 2018, 62, 395-404.	0.6	9
11	Visual feedback alters force control and functional activity in the visuomotor network after stroke. NeuroImage: Clinical, 2018, 17, 505-517.	1.4	33
12	Can Measured Synergy Excitations Accurately Construct Unmeasured Muscle Excitations?. Journal of Biomechanical Engineering, 2018, 140, .	0.6	23
13	External biomechanical constraints impair maximal voluntary grip force stability post-stroke. Clinical Biomechanics, 2018, 57, 26-34.	0.5	4
14	Short Intracortical Inhibition During Voluntary Movement Reveals Persistent Impairment Post-stroke. Frontiers in Neurology, 2018, 9, 1105.	1.1	14
15	Free-water and free-water corrected fractional anisotropy in primary and premotor corticospinal tracts in chronic stroke. Human Brain Mapping, 2017, 38, 4546-4562.	1.9	16
16	Speed and Rhythm Affect Temporal Structure of Variability in Reaching Poststroke: A Pilot Study. Journal of Motor Behavior, 2017, 49, 35-45.	0.5	9
17	Methodological Choices in Muscle Synergy Analysis Impact Differentiation of Physiological Characteristics Following Stroke. Frontiers in Computational Neuroscience, 2017, 11, 78.	1.2	43
18	Electromyography Exposes Heterogeneity in Muscle Co-Contraction following Stroke. Frontiers in Neurology, 2017, 8, 699.	1.1	33

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19	Lower extremity EMG-driven modeling of walking with automated adjustment of musculoskeletal geometry. PLoS ONE, 2017, 12, e0179698.	1.1	57
20	Muscle Synergies Facilitate Computational Prediction of Subject-Specific Walking Motions. Frontiers in Bioengineering and Biotechnology, 2016, 4, 77.	2.0	73
21	Priming the Ipsilesional Motor Cortex with Excitatory rTMS to Augment Functional Task Practice Post-Stroke. Archives of Physical Medicine and Rehabilitation, 2016, 97, e93.	0.5	0
22	Microstructural properties of premotor pathways predict visuomotor performance in chronic stroke. Human Brain Mapping, 2016, 37, 2039-2054.	1.9	15
23	A majority rule approach for region-of-interest-guided streamline fiber tractography. Brain Imaging and Behavior, 2016, 10, 1137-1147.	1.1	20
24	Repetitive Transcranial Magnetic Stimulation (rTMS) Therapy in Parkinson Disease: A Metaâ€Analysis. PM and R, 2016, 8, 356-366.	0.9	58
25	Abstract TMP30: SICI During Voluntary Movement Reveals Persistent Impairment in Cortical Stroke. Stroke, 2016, 47, .	1.0	0
26	Upper-extremity spinal reflex inhibition is reproducible and strongly related to grip force poststroke. International Journal of Neuroscience, 2015, 125, 441-448.	0.8	0
27	Comparative Effects of Light or Heavy Resistance Power Training for Improving Lower Extremity Power and Physical Performance in Mobility-Limited Older Adults. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2015, 70, 374-380.	1.7	106
28	Does Inhibitory Repetitive Transcranial Magnetic Stimulation Augment Functional Task Practice to Improve Arm Recovery in Chronic Stroke?. Stroke Research and Treatment, 2014, 2014, 1-10.	0.5	46
29	Does quadriceps neuromuscular activation capability explain walking speed in older men and women?. Experimental Gerontology, 2014, 55, 49-53.	1.2	19
30	Longitudinal decline of lower extremity muscle power in healthy and mobility-limited older adults: influence of muscle mass, strength, composition, neuromuscular activation and single fiber contractile properties. European Journal of Applied Physiology, 2014, 114, 29-39.	1.2	173
31	Impaired Limb Shortening following Stroke: Whatâ€™s in a Name?. PLoS ONE, 2014, 9, e110140.	1.1	41
32	Concurrent neuromechanical and functional gains following upper-extremity power training post-stroke. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 1.	2.4	138
33	Neuromuscular determinants of maximum walking speed in well-functioning older adults. Experimental Gerontology, 2013, 48, 358-363.	1.2	98
34	Poster 48 Enhancing Arm Recovery Post-Stroke: Use of Contralesional Inhibitory rTMS to Augment Functional Task Practice. Archives of Physical Medicine and Rehabilitation, 2013, 94, e28.	0.5	0
35	Eccentric Versus Concentric Resistance Training to Enhance Neuromuscular Activation and Walking Speed Following Stroke. Neurorehabilitation and Neural Repair, 2013, 27, 335-344.	1.4	54
36	Temporal structure of variability decreases in upper extremity movements post stroke. Clinical Biomechanics, 2013, 28, 134-139.	0.5	14

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37	Longitudinal Decline of Neuromuscular Activation and Power in Healthy Older Adults. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2013, 68, 1419-1425.	1.7	71
38	Effects of Aerobic Fitness on Aging-Related Changes of Interhemispheric Inhibition and Motor Performance. Frontiers in Aging Neuroscience, 2013, 5, 66.	1.7	46
39	So-Called â€˜Foot-Dropâ€™ Post-stroke: Not a Dorsiflexor Impairment. Biosystems and Biorobotics, 2013, , 691-695.	0.2	3
40	Effect of Wearable Robotic Leg Orthosis on the Weight Bearing Symmetry during Sit-to-Stand in Individuals Post-stroke. Biosystems and Biorobotics, 2013, , 103-107.	0.2	4
41	Effects of â€˜Intention-Basedâ€™ Robotic Exoskeleton on Muscle Activation Patterns during Overground Walking. Biosystems and Biorobotics, 2013, , 109-113.	0.2	2
42	Comparative effects of high velocity and low velocity power training on muscle performance, muscle mass and functional ability in mobilityâ€limited elders: a randomized trial. FASEB Journal, 2013, 27, 1150.2.	0.2	0
43	Differential Effects of Power Training Versus Functional Task Practice on Compensation and Restoration of Arm Function After Stroke. Neurorehabilitation and Neural Repair, 2012, 26, 842-854.	1.4	38
44	Evaluation of a Novel Statistical Method for EMG-to-Moment Estimation During Gait. , 2012, , .		0
45	Repetitive Transcranial Magnetic Stimulation of Motor Cortex after Stroke. American Journal of Physical Medicine and Rehabilitation, 2012, 91, 254-270.	0.7	113
46	Unexpected Recovery After Robotic Locomotor Training at Physiologic Stepping Speed: A Single-Case Design. Archives of Physical Medicine and Rehabilitation, 2012, 93, 1476-1484.	0.5	16
47	Upper-extremity H-reflex measurement post-stroke: Reliability and inter-limb differences. Clinical Neurophysiology, 2012, 123, 1606-1615.	0.7	29
48	Bimanual force control strategies in chronic stroke: Finger extension versus power grip. Neuropsychologia, 2012, 50, 2536-2545.	0.7	38
49	Robotics for Stroke Recovery. , 2012, , 255-290.		1
50	Aging, Aerobic Activity and Interhemispheric Communication. Brain Sciences, 2012, 2, 634-648.	1.1	19
51	Muscle power failure in mobility-limited older adults: preserved single fiber function despite lower whole muscle size, quality and rate of neuromuscular activation. European Journal of Applied Physiology, 2012, 112, 2289-2301.	1.2	88
52	The specific contributions of force and velocity to muscle power in older adults. Experimental Gerontology, 2012, 47, 608-613.	1.2	72
53	Muscle Performance and Physical Function Are Associated With Voluntary Rate of Neuromuscular Activation in Older Adults. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2011, 66A, 115-121.	1.7	77
54	Force control deficits in chronic stroke: grip formation and release phases. Experimental Brain Research, 2011, 211, 1-15.	0.7	71

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55	Impaired Voluntary Neuromuscular Activation Limits Muscle Power in Mobility-Limited Older Adults. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2010, 65A, 495-502.	1.7	74
56	Invited Commentary on â€œAllowing Intralimb Kinematic Variability During Locomotor Training Poststroke Improves Kinematic Consistency: A Subgroup Analysis From a Randomized Clinical Trialâ€. Physical Therapy, 2009, 89, e7-e8.	1.1	1
57	Pilot study of Lokomat versus manual-assisted treadmill training for locomotor recovery post-stroke. Journal of NeuroEngineering and Rehabilitation, 2009, 6, 18.	2.4	255
58	A physiology based inverse dynamic analysis of human gait: potential and perspectives. Computer Methods in Biomechanics and Biomedical Engineering, 2009, 12, 563-574.	0.9	61
59	Capacity to increase walking speed is limited by impaired hip and ankle power generation in lower functioning persons post-stroke. Gait and Posture, 2009, 29, 129-137.	0.6	180
60	Joint moment work during the stance-to-swing transition in hemiparetic subjects. Journal of Biomechanics, 2008, 41, 877-883.	0.9	61
61	Strengthening to Promote Functional Recovery Poststroke: An Evidence-Based Review. Topics in Stroke Rehabilitation, 2008, 15, 177-199.	1.0	115
62	Reproducibility and Minimal Detectable Change of Three-Dimensional Kinematic Analysis of Reaching Tasks in People With Hemiparesis After Stroke. Physical Therapy, 2008, 88, 652-663.	1.1	230
63	Slow rate of neuromuscular activation contributes to impaired movement acceleration and peak power in mobilityâ€limited older adults. FASEB Journal, 2008, 22, 1163.9.	0.2	0
64	Does Force Or Velocity Contribute More To Maximal Muscle Power In Older Adults?. Medicine and Science in Sports and Exercise, 2007, 39, S262.	0.2	0
65	Activation impairment alters muscle torqueâ€“velocity in the knee extensors of persons with post-stroke hemiparesis. Clinical Neurophysiology, 2006, 117, 2328-2337.	0.7	56
66	Reliability of concentric and eccentric torque during isokinetic knee extension in post-stroke hemiparesis. Clinical Biomechanics, 2006, 21, 395-404.	0.5	44
67	Does Unilateral Pedaling Activate a Rhythmic Locomotor Pattern in the Nonpedaling Leg in Post-Stroke Hemiparesis?. Journal of Neurophysiology, 2006, 95, 3154-3163.	0.9	59
68	Combined Functional Task Practice and Dynamic High Intensity Resistance Training Promotes Recovery of Upper-extremity Motor Function in Post-stroke Hemiparesis. Journal of Neurologic Physical Therapy, 2006, 30, 99-115.	0.7	60
69	Its Not About the Muscle. Journal of Neurologic Physical Therapy, 2006, 30, 118-119.	0.7	0
70	Treadmill training with harness support: Selection of parameters for individuals with poststroke hemiparesis. Journal of Rehabilitation Research and Development, 2006, 43, 485.	1.6	55
71	Reliability of Dynamic Muscle Performance in the Hemiparetic Upper Limb. Journal of Neurologic Physical Therapy, 2005, 29, 9-17.	0.7	25
72	Interlimb Influences on Paretic Leg Function in Poststroke Hemiparesis. Journal of Neurophysiology, 2005, 93, 2460-2473.	0.9	77

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73	RELIABILITY OF GAIT PERFORMANCE TESTS IN MEN AND WOMEN WITH HEMIPARESIS AFTER STROKE. Journal of Rehabilitation Medicine, 2005, 37, 75-82.	0.8	919
74	Reliability of elbow stretch reflex assessment in chronic post-stroke hemiparesis. Clinical Neurophysiology, 2005, 116, 1870-1878.	0.7	45
75	Gait deviations associated with post-stroke hemiparesis: improvement during treadmill walking using weight support, speed, support stiffness, and handrail hold. Gait and Posture, 2005, 22, 57-62.	0.6	113
76	Gait differences between individuals with post-stroke hemiparesis and non-disabled controls at matched speeds. Gait and Posture, 2005, 22, 51-56.	0.6	569
77	Effects of velocity on maximal torque production in poststroke hemiparesis. Muscle and Nerve, 2004, 30, 732-742.	1.0	67
78	Weakness and strength training in persons with poststroke hemiplegia: Rationale, method, and efficacy. Journal of Rehabilitation Research and Development, 2004, 41, 293.	1.6	265
79	Head and Body Center of Gravity Control Strategies: Adaptations Following Vestibular Rehabilitation. Acta Oto-Laryngologica, 2003, 123, 32-40.	0.3	26
80	T 2Mapping of Muscle. Seminars in Musculoskeletal Radiology, 2003, 7, 297-307.	0.4	123
81	Reliability and responsiveness of elbow trajectory tracking. Journal of Rehabilitation Research and Development, 2003, 40, 487.	1.6	43
82	Adaptations in maximal motor unit discharge rate to strength training in young and older adults. Muscle and Nerve, 2001, 24, 542-550.	1.0	147
83	Adaptations in motor unit discharge activity with force control training in young and older human adults. European Journal of Applied Physiology, 2000, 83, 128-143.	1.2	123
84	Reeducating Muscle Force Control in Older Persons through Strength Training. Topics in Geriatric Rehabilitation, 2000, 15, 47-59.	0.2	14
85	Maximal motor unit discharge rates in the quadriceps muscles of older weight lifters. Medicine and Science in Sports and Exercise, 1999, 31, 1638.	0.2	66
86	An Accelerometry-Based System for the Assessment of Balance and Postural Sway. Gerontology, 1998, 44, 40-45.	1.4	107
87	Motor unit discharge behavior in older adults during maximal-effort contractions. Journal of Applied Physiology, 1995, 79, 1908-1913.	1.2	269
88	Neck Dissection: Morbidity and Rehabilitation. Cancer Treatment and Research, 1990, 52, 133-147.	0.2	15
89	Absolute Reliability of Gait Parameters Acquired With Markerless Motion Capture in Living Domains. Frontiers in Human Neuroscience, 0, 16, .	1.0	10
90	Feasibility of Markerless Motion Capture for Three-Dimensional Gait Assessment in Community Settings. Frontiers in Human Neuroscience, 0, 16, .	1.0	8