Peter S Lum

List of Publications by Year
in descending order

55 papers	3,824 citations	186209 28 h-index	206029 48 g-index
56 all docs	56 docs citations	56 times ranked	3131 citing authors

#	Article	IF	Citations
1	A trade-off between kinematic and dynamic control of bimanual reaching in virtual reality. Journal of Neurophysiology, 2022, 127, 1279-1288.	0.9	2
2	Perceived effort affects choice of limb and reaction time of movements. Journal of Neurophysiology, 2021, 125, 63-73.	0.9	13
3	Clinical Test of a Wearable, High DOF, Spring Powered Hand Exoskeleton (HandSOME II). IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1877-1885.	2.7	11
4	Shoulder position and handedness differentially affect excitability and intracortical inhibition of hand muscles. Experimental Brain Research, 2021, 239, 1517-1530.	0.7	0
5	Tele-rehabilitation of upper-extremity hemiparesis after stroke: Proof-of-concept randomized controlled trial of in-home Constraint-Induced Movement therapy. Restorative Neurology and Neuroscience, 2021, 39, 303-318.	0.4	9
6	Pilot Test of Dosage Effects in HEXORR II for Robotic Hand Movement Therapy in Individuals With Chronic Stroke. Frontiers in Rehabilitation Sciences, 2021, 2, .	0.5	1
7	A tracking device for a wearable high-DOF passive hand exoskeleton. , 2021, 2021, 6643-6646.		4
8	Home-Based Therapy After Stroke Using the Hand Spring Operated Movement Enhancer (HandSOME II). Frontiers in Neurorobotics, 2021, 15, 773477.	1.6	4
9	Conceptualizing the Experience of Exoskeletons in Home Hand Rehabilitation After Stroke. Archives of Physical Medicine and Rehabilitation, 2020, 101, e134-e135.	0.5	1
10	Characterizing upper extremity motor behavior in the first week after stroke. PLoS ONE, 2020, 15, e0221668.	1.1	19
11	HandMATE: Wearable Robotic Hand Exoskeleton and Integrated Android App for At Home Stroke Rehabilitation. , 2020, 2020, 4867-4872.		24
12	Conceptualization of Hand-TaPS to measure the subjective experience of dynamic hand orthoses in promoting functional recovery at home after stroke. Technology and Disability, 2020, 32, 285-294.	0.3	3
13	Improving Accelerometry-Based Measurement of Functional Use of the Upper Extremity After Stroke: Machine Learning Versus Counts Threshold Method. Neurorehabilitation and Neural Repair, 2020, 34, 1078-1087.	1.4	30
14	An Elbow Exoskeleton for Upper Limb Rehabilitation With Series Elastic Actuator and Cable-Driven Differential. IEEE Transactions on Robotics, 2019, 35, 1464-1474.	7.3	74
15	Pilot testing of the spring operated wearable enhancer for arm rehabilitation (SpringWear). Journal of NeuroEngineering and Rehabilitation, 2018, 15, 13.	2.4	20
16	Machine Learning Approaches to Predict Functional Upper Extremity Use in Individuals with Stroke. , 2018, , .		3
17	Robust Classification of Functional and Nonfunctional Arm Movement after Stroke Using a Single Wrist-Worn Sensor Device. , 2018, , .		5
18	Neural coupling between homologous muscles during bimanual tasks: effects of visual and somatosensory feedback. Journal of Neurophysiology, 2017, 117, 655-664.	0.9	9

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19	Home-Based Therapy After Stroke Using the Hand Spring Operated Movement Enhancer (HandSOME). IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 2305-2312.	2.7	48
20	Measuring Functional Arm Movement after Stroke Using a Single Wrist-Worn Sensor and Machine Learning. Journal of Stroke and Cerebrovascular Diseases, 2017, 26, 2880-2887.	0.7	56
21	Hand rehabilitation after stroke using a wearable, high DOF, spring powered exoskeleton. , 2016, 2016, 578-581.		23
22	Spring operated wearable enhancer for arm rehabilitation (SpringWear) after stroke. , 2016, 2016, 4893-4896.		7
23	Dynamic motor tracking is sensitive to subacute mTBI. Experimental Brain Research, 2016, 234, 3173-3184.	0.7	7
24	Using Wearable Sensors and Machine Learning Models to Separate Functional Upper Extremity Use From Walking-Associated Arm Movements. Archives of Physical Medicine and Rehabilitation, 2016, 97, 224-231.	0.5	32
25	Proximal arm kinematics affect grip force-load force coordination. Journal of Neurophysiology, 2015, 114, 2265-2277.	0.9	3
26	Internal models of upper limb prosthesis users when grasping and lifting a fragile object with their prosthetic limb. Experimental Brain Research, 2014, 232, 3785-3795.	0.7	36
27	Robotic Therapy Provides a Stimulus for Upper Limb Motor Recovery After Stroke That Is Complementary to and Distinct From Conventional Therapy. Neurorehabilitation and Neural Repair, 2014, 28, 367-376.	1.4	64
28	Concurrent neuromechanical and functional gains following upper-extremity power training post-stroke. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 1.	2.4	138
29	Compensation for the intrinsic dynamics of the InMotion2 robot. Journal of Neuroscience Methods, 2013, 214, 15-20.	1.3	8
30	Poster 45 Telerehabilitation Versus Outpatient Delivery of Constraint-Induced Movement therapy: Update on a Randomized Controlled Trial. Archives of Physical Medicine and Rehabilitation, 2013, 94, e27-e28.	0.5	2
31	Clinical Effects of Using HEXORR (Hand Exoskeleton Rehabilitation Robot) for Movement Therapy in Stroke Rehabilitation. American Journal of Physical Medicine and Rehabilitation, 2013, 92, 947-958.	0.7	25
32	Cortical effects of repetitive finger flexion- vs. extension-resisted tracking movements: a TMS study. Journal of Neurophysiology, 2013, 109, 1009-1016.	0.9	18
33	Robotic Approaches for Rehabilitation of Hand Function After Stroke. American Journal of Physical Medicine and Rehabilitation, 2012, 91, S242-S254.	0.7	126
34	Characterization of Compensatory Trunk Movements During Prosthetic Upper Limb Reaching Tasks. Archives of Physical Medicine and Rehabilitation, 2012, 93, 2029-2034.	0.5	90
35	Hand Spring Operated Movement Enhancer (HandSOME): A Portable, Passive Hand Exoskeleton for Stroke Rehabilitation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 391-399.	2.7	164
36	Development and pilot testing of HEXORR: Hand EXOskeleton Rehabilitation Robot. Journal of NeuroEngineering and Rehabilitation, 2010, 7, 36.	2.4	219

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37	Feedforward control strategies of subjects with transradial amputation in planar reaching. Journal of Rehabilitation Research and Development, 2010, 47, 201.	1.6	34
38	Gains in Upper Extremity Function After Stroke via Recovery or Compensation: Potential Differential Effects on Amount of Real-World Limb Use. Topics in Stroke Rehabilitation, 2009, 16, 237-253.	1.0	135
39	Improving backdrivability in geared rehabilitation robots. Medical and Biological Engineering and Computing, 2009, 47, 441-447.	1.6	57
40	Trans-radial upper extremity amputees are capable of adapting to a novel dynamic environment. Experimental Brain Research, 2008, 188, 589-601.	0.7	30
41	Effect of Training on Upper-Extremity Prosthetic Performance and Motor Learning: A Single-Case Study. Archives of Physical Medicine and Rehabilitation, 2008, 89, 1199-1204.	0.5	44
42	Greater reliance on impedance control in the nondominant arm compared with the dominant arm when adapting to a novel dynamic environment. Experimental Brain Research, 2007, 182, 567-577.	0.7	62
43	Cerebral palsy: New approaches to therapy. Current Neurology and Neuroscience Reports, 2007, 7, 147-155.	2.0	41
44	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
45	Activity-based therapies. NeuroRx, 2006, 3, 428-438.	6.0	72
46	A telerehabilitation approach to delivery of constraint-induced movement therapy. Journal of Rehabilitation Research and Development, 2006, 43, 391.	1.6	68
47	MIME robotic device for upper-limb neurorehabilitation in subacute stroke subjects: A follow-up study. Journal of Rehabilitation Research and Development, 2006, 43, 631.	1.6	381
48	Reliability of Dynamic Muscle Performance in the Hemiparetic Upper Limb. Journal of Neurologic Physical Therapy, 2005, 29, 9-17.	0.7	25
49	AutoCITE. Stroke, 2005, 36, 1301-1304.	1.0	115
50	Effects of velocity on maximal torque production in poststroke hemiparesis. Muscle and Nerve, 2004, 30, 732-742.	1.0	67
51	Evidence for strength imbalances as a significant contributor to abnormal synergies in hemiparetic subjects. Muscle and Nerve, 2003, 27, 211-221.	1.0	85
52	Robotic stroke therapy assistant. Robotica, 2003, 21, 33-44.	1.3	50
53	Robotic Devices for Movement Therapy After Stroke: Current Status and Challenges to Clinical Acceptance. Topics in Stroke Rehabilitation, 2002, 8, 40-53.	1.0	181
54	Robot-assisted movement training compared with conventional therapy techniques for the rehabilitation of upper-limb motor function after stroke. Archives of Physical Medicine and Rehabilitation, 2002, 83, 952-959.	0.5	993

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55	Human control of a simple two-hand grasp. Biological Cybernetics, 1992, 67, 553-564.	0.6	26