Vincent C K Cheung

List of Publications by Year
in descending order

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30 papers	3,403 citations	567144 15 h-index	552653 26 g-index
30 all docs	30 docs citations	30 times ranked	2094 citing authors

#	Article	IF	Citations
1	Approaches to revealing the neural basis of muscle synergies: a review and a critique. Journal of Neurophysiology, 2021, 125, 1580-1597.	0.9	57
2	Muscle Synergies and Clinical Outcome Measures Describe Different Factors of Upper Limb Motor Function in Stroke Survivors Undergoing Rehabilitation in a Virtual Reality Environment. Sensors, 2021, 21, 8002.	2.1	6
3	Muscle endurance time estimation during isometric training using electromyogram and supervised learning. Journal of Electromyography and Kinesiology, 2020, 50, 102376.	0.7	2
4	Classification of runnersâ€™ performance levels with concurrent prediction of biomechanical parameters using data from inertial measurement units. Journal of Biomechanics, 2020, 112, 110072.	0.9	18
5	Plasticity of muscle synergies through fractionation and merging during development and training of human runners. Nature Communications, 2020, 11, 4356.	5.8	68
6	Robustness of Muscle Synergies under Variant Muscle Contraction Force during Forearm Movements. , 2020, 2020, 3306-3309.		2
7	Adapting to the Mechanical Properties and Active Force of an Exoskeleton by Altering Muscle Synergies in Chronic Stroke Survivors. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 2203-2213.	2.7	12
8	Modulation of muscle synergies for multiple forearm movements under variant force and arm position constraints. Journal of Neural Engineering, 2020, 17, 026015.	1.8	11
9	Modulating the Structure of Motor Variability for Skill Learning Through Specific Muscle Synergies in Elderlies and Young Adults. IEEE Open Journal of Engineering in Medicine and Biology, 2020, 1, 33-40.	1.7	16
10	Robot-Driven Locomotor Perturbations Reveal Synergy-Mediated, Context-Dependent Feedforward and Feedback Mechanisms of Adaptation. Scientific Reports, 2020, 10, 5104.	1.6	18
11	Pathway-specific modulatory effects of neuromuscular electrical stimulation during pedaling in chronic stroke survivors. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 143.	2.4	10
12	A Novel FES Strategy for Poststroke Rehabilitation Based on the Natural Organization of Neuromuscular Control. IEEE Reviews in Biomedical Engineering, 2019, 12, 154-167.	13.1	27
13	Rehabilitation Induced Neural Plasticity after Acquired Brain Injury. Neural Plasticity, 2018, 2018, 1-3.	1.0	12
14	Editorial: Neural and Computational Modeling of Movement Control. Frontiers in Computational Neuroscience, 2016, 10, 90.	1.2	5
15	A Quasi-Likelihood Approach to Nonnegative Matrix Factorization. Neural Computation, 2016, 28, 1663-1693.	1.3	7
16	An Optogenetic Demonstration of Motor Modularity in the Mammalian Spinal Cord. Scientific Reports, 2016, 6, 35185.	1.6	45
17	Decomposing time series data by a non-negative matrix factorization algorithm with temporally constrained coefficients. , 2015, 2015, 3496-9.		17
18	On Nonnegative Matrix Factorization Algorithms for Signal-Dependent Noise with Application to Electromyography Data. Neural Computation, 2014, 26, 1128-1168.	1.3	35

#	Article	IF	Citations
19	The effect of arm weight support on upper limb muscle synergies during reaching movements. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 22.	2.4	93
20	The neural origin of muscle synergies. Frontiers in Computational Neuroscience, 2013, 7, 51.	1.2	365
21	Gene Expression Changes in the Motor Cortex Mediating Motor Skill Learning. PLoS ONE, 2013, 8, e61496.	1.1	19
22	Muscle synergy patterns as physiological markers of motor cortical damage. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14652-14656.	3.3	479
23	Neuroscience at MIT. IEEE Pulse, 2011, 2, 47-50.	0.1	0
24	Modules in the brain stem and spinal cord underlying motor behaviors. Journal of Neurophysiology, 2011, 106, 1363-1378.	0.9	118
25	Stability of muscle synergies for voluntary actions after cortical stroke in humans. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 19563-19568.	3.3	347
26	Adjustments of Motor Pattern for Load Compensation Via Modulated Activations of Muscle Synergies During Natural Behaviors. Journal of Neurophysiology, 2009, 101, 1235-1257.	0.9	101
27	Combining modules for movement. Brain Research Reviews, 2008, 57, 125-133.	9.1	470
28	Matrix Factorization Algorithms for the Identification of Muscle Synergies: Evaluation on Simulated and Experimental Data Sets. Journal of Neurophysiology, 2006, 95, 2199-2212.	0.9	634
29	Non-negative matrix factorization algorithms modeling noise distributions within the exponential family. , 2005, 2005, 4990-3.		17
30	Central and Sensory Contributions to the Activation and Organization of Muscle Synergies during Natural Motor Behaviors. Journal of Neuroscience, 2005, 25, 6419-6434.	1.7	392