

Vincent C K Cheung

List of Publications by Year in descending order

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Version: 2024-02-01

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	Matrix Factorization Algorithms for the Identification of Muscle Synergies: Evaluation on Simulated and Experimental Data Sets. <i>Journal of Neurophysiology</i> , 2006, 95, 2199-2212.	0.9	634
2	Muscle synergy patterns as physiological markers of motor cortical damage. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 14652-14656.	3.3	479
3	Combining modules for movement. <i>Brain Research Reviews</i> , 2008, 57, 125-133.	9.1	470
4	Central and Sensory Contributions to the Activation and Organization of Muscle Synergies during Natural Motor Behaviors. <i>Journal of Neuroscience</i> , 2005, 25, 6419-6434.	1.7	392
5	The neural origin of muscle synergies. <i>Frontiers in Computational Neuroscience</i> , 2013, 7, 51.	1.2	365
6	Stability of muscle synergies for voluntary actions after cortical stroke in humans. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 19563-19568.	3.3	347
7	Modules in the brain stem and spinal cord underlying motor behaviors. <i>Journal of Neurophysiology</i> , 2011, 106, 1363-1378.	0.9	118
8	Adjustments of Motor Pattern for Load Compensation Via Modulated Activations of Muscle Synergies During Natural Behaviors. <i>Journal of Neurophysiology</i> , 2009, 101, 1235-1257.	0.9	101
9	The effect of arm weight support on upper limb muscle synergies during reaching movements. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2014, 11, 22.	2.4	93
10	Plasticity of muscle synergies through fractionation and merging during development and training of human runners. <i>Nature Communications</i> , 2020, 11, 4356.	5.8	68
11	Approaches to revealing the neural basis of muscle synergies: a review and a critique. <i>Journal of Neurophysiology</i> , 2021, 125, 1580-1597.	0.9	57
12	An Optogenetic Demonstration of Motor Modularity in the Mammalian Spinal Cord. <i>Scientific Reports</i> , 2016, 6, 35185.	1.6	45
13	On Nonnegative Matrix Factorization Algorithms for Signal-Dependent Noise with Application to Electromyography Data. <i>Neural Computation</i> , 2014, 26, 1128-1168.	1.3	35
14	A Novel FES Strategy for Poststroke Rehabilitation Based on the Natural Organization of Neuromuscular Control. <i>IEEE Reviews in Biomedical Engineering</i> , 2019, 12, 154-167.	13.1	27
15	Gene Expression Changes in the Motor Cortex Mediating Motor Skill Learning. <i>PLoS ONE</i> , 2013, 8, e61496.	1.1	19
16	Classification of runners' performance levels with concurrent prediction of biomechanical parameters using data from inertial measurement units. <i>Journal of Biomechanics</i> , 2020, 112, 110072.	0.9	18
17	Robot-Driven Locomotor Perturbations Reveal Synergy-Mediated, Context-Dependent Feedforward and Feedback Mechanisms of Adaptation. <i>Scientific Reports</i> , 2020, 10, 5104.	1.6	18
18	Non-negative matrix factorization algorithms modeling noise distributions within the exponential family. , 2005, 2005, 4990-3.		17

#	ARTICLE	IF	CITATIONS
19	Decomposing time series data by a non-negative matrix factorization algorithm with temporally constrained coefficients. , 2015, 2015, 3496-9.		17
20	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
21	Rehabilitation Induced Neural Plasticity after Acquired Brain Injury. Neural Plasticity, 2018, 2018, 1-3.	1.0	12
22	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
23	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
24	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
25	A Quasi-Likelihood Approach to Nonnegative Matrix Factorization. Neural Computation, 2016, 28, 1663-1693.	1.3	7
26	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
27	Editorial: Neural and Computational Modeling of Movement Control. Frontiers in Computational Neuroscience, 2016, 10, 90.	1.2	5
28	Muscle endurance time estimation during isometric training using electromyogram and supervised learning. Journal of Electromyography and Kinesiology, 2020, 50, 102376.	0.7	2
29	Robustness of Muscle Synergies under Variant Muscle Contraction Force during Forearm Movements. , 2020, 2020, 3306-3309.		2
30	Neuroscience at MIT. IEEE Pulse, 2011, 2, 47-50.	0.1	0