

# AleÅ; Holobar

## List of Publications by Year in descending order

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78  
papers

4,629  
citations

218677

26  
h-index

110387

64  
g-index

80  
all docs

80  
docs citations

80  
times ranked

2626  
citing authors

#	ARTICLE	IF	CITATIONS
1	The length of tibialis anterior does not influence force steadiness during submaximal isometric contractions with the dorsiflexors. <i>European Journal of Sport Science</i> , 2022, 22, 539-548.	2.7	9
2	Less common synaptic input between muscles from the same group allows for more flexible coordination strategies during a fatiguing task. <i>Journal of Neurophysiology</i> , 2022, 127, 421-433.	1.8	27
3	Online Tracking of the Phase Difference Between Neural Drives to Antagonist Muscle Pairs in Essential Tremor Patients. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2022, 30, 709-718.	4.9	7
4	Association between effective neural drive to the triceps surae and fluctuations in plantar flexion torque during submaximal isometric contractions. <i>Experimental Physiology</i> , 2022, 107, 489-507.	2.0	7
5	Leg Dominance Does Not Influence Maximal Force, Force Steadiness, or Motor Unit Discharge Characteristics. <i>Medicine and Science in Sports and Exercise</i> , 2022, 54, 1278-1287.	0.4	8
6	Consensus for experimental design in electromyography (CEDE) project: High-density surface electromyography matrix. <i>Journal of Electromyography and Kinesiology</i> , 2022, 64, 102656.	1.7	22
7	Effects of reciprocal inhibition and whole-body relaxation on persistent inward currents estimated by two different methods. <i>Journal of Physiology</i> , 2022, 600, 2765-2787.	2.9	25
8	Anomalies of motor unit amplitude and territory after botulinum toxin injection. <i>Journal of Neural Engineering</i> , 2022, 19, 036041.	3.5	1
9	Neuromuscular characteristics of front and back legs in junior fencers. <i>Experimental Brain Research</i> , 2022, 240, 2085-2096.	1.5	6
10	Startling stimuli increase maximal motor unit discharge rate and rate of force development in humans. <i>Journal of Neurophysiology</i> , 2022, 128, 455-469.	1.8	8
11	Control of Spinal Motoneurons by Feedback From a Non-Invasive Real-Time Interface. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 926-935.	4.2	30
12	A Novel High-Density Electromyography Probe for Evaluating Anorectal Neurophysiology: Design, Human Feasibility Study, and Validation with Trans-Sacral Magnetic Stimulation. <i>Annals of Biomedical Engineering</i> , 2021, 49, 502-514.	2.5	4
13	Deep Learning for Robust Decomposition of High-Density Surface EMG Signals. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 526-534.	4.2	52
14	Identification of the laterality of motor unit behavior in female patients with parkinson's disease using high-density surface electromyography. <i>European Journal of Neuroscience</i> , 2021, 53, 1938-1949.	2.6	7
15	On the Prediction of Motor Unit Filter Changes in Blind Source Separation of High-Density Surface Electromyograms During Dynamic Muscle Contractions. <i>IEEE Access</i> , 2021, 9, 103533-103540.	4.2	9
16	Non-Negative Matrix Factorization of Simulated High Density Surface Electromyograms Reflects Both Muscle Excitation and Muscle Shortening. <i>IEEE Access</i> , 2021, 9, 70548-70555.	4.2	3
17	Quercetin ingestion modifies human motor unit firing patterns and muscle contractile properties. <i>Experimental Brain Research</i> , 2021, 239, 1567-1579.	1.5	9
18	High-density surface electromyography to assess motor unit firing rate in Charcot-Marie-Tooth disease type 1A patients. <i>Clinical Neurophysiology</i> , 2021, 132, 812-818.	1.5	10

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19	Fish Protein Ingestion Induces Neural, but Not Muscular Adaptations, Following Resistance Training in Young Adults. <i>Frontiers in Nutrition</i> , 2021, 8, 645747.	3.7	3
20	Analysis of motor unit spike trains estimated from high-density surface electromyography is highly reliable across operators. <i>Journal of Electromyography and Kinesiology</i> , 2021, 58, 102548.	1.7	61
21	Noninvasive Neural Interfacing With Wearable Muscle Sensors: Combining Convolutional Blind Source Separation Methods and Deep Learning Techniques for Neural Decoding. <i>IEEE Signal Processing Magazine</i> , 2021, 38, 103-118.	5.6	37
22	Consensus for experimental design in electromyography (CEDE) project: Terminology matrix. <i>Journal of Electromyography and Kinesiology</i> , 2021, 59, 102565.	1.7	29
23	The Effects of Spinal Manipulation on Motor Unit Behavior. <i>Brain Sciences</i> , 2021, 11, 105.	2.3	3
24	On the Reuse of Motor Unit Filters in High Density Surface Electromyograms Recorded at Different Contraction Levels. <i>IEEE Access</i> , 2021, 9, 115227-115236.	4.2	29
25	Motor unit firing patterns on increasing force during force and position tasks. <i>Journal of Neurophysiology</i> , 2021, 126, 1653-1659.	1.8	3
26	Association between the Degree of Pre-Synaptic Dopaminergic Pathway Degeneration and Motor Unit Firing Behavior in Parkinson's Disease Patients. <i>Sensors</i> , 2021, 21, 6615.	3.8	1
27	High-density electromyography biofeedback during robotic wrist exercises for reducing co-activation of antagonist muscles: a case report. <i>International Journal of Rehabilitation Research</i> , 2021, 44, 92-97.	1.3	1
28	Multi-run Differential Evolution Improves the Decomposition of Compound Muscle Action Potential in High-Density Surface Electromyograms. <i>IFMBE Proceedings</i> , 2021, , 848-856.	0.3	0
29	Inter-Person Differences in Isometric Coactivations of Triceps Surae and Tibialis Anterior Decrease in Young, but Not in Older Adults After 14 Days of Bed Rest. <i>Frontiers in Physiology</i> , 2021, 12, 809243.	2.8	1
30	Modulation of Neural and Muscular Adaptation Processes During Resistance Training by Fish Protein Ingestions in Older Adults. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2020, 75, 867-874.	3.6	13
31	Effect of milk fat globule membrane supplementation on motor unit adaptation following resistance training in older adults. <i>Physiological Reports</i> , 2020, 8, e14491.	1.7	12
32	On the Selection of Neural Network Architecture for Supervised Motor Unit Identification from High-Density Surface EMG. , 2020, 2020, 736-739.		3
33	Consensus for experimental design in electromyography (CEDE) project: Amplitude normalization matrix. <i>Journal of Electromyography and Kinesiology</i> , 2020, 53, 102438.	1.7	170
34	Estimation of Muscle Co-Activations in Wrist Rehabilitation After Stroke is Sensitive to Motor Unit Distribution and Action Potential Shapes. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020, 28, 1208-1215.	4.9	12
35	Public database for validation of follicle detection algorithms on 3D ultrasound images of ovaries. <i>Computer Methods and Programs in Biomedicine</i> , 2020, 196, 105621.	4.7	9
36	Direct translation of findings in isolated animal preparations to <i>in vivo</i> human motoneuron behaviour is challenging. <i>Journal of Physiology</i> , 2020, 598, 1111-1112.	2.9	0

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37	Automatic Identification of Individual Motor Unit Firing Accuracy From High-Density Surface Electromyograms. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 419-426.	4.9	3
38	Improved Assessment of Muscle Excitation From Surface Electromyograms in Isometric Muscle Contractions. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 1483-1491.	4.9	6
39	Consensus for experimental design in electromyography (CEDE) project: Electrode selection matrix. Journal of Electromyography and Kinesiology, 2019, 48, 128-144.	1.7	95
40	Voluntary and tremorogenic inputs to motor neuron pools of agonist/antagonist muscles in essential tremor patients. Journal of Neurophysiology, 2019, 122, 2043-2053.	1.8	19
41	Three-dimensional amplitude characteristics of masseter motor units and representativeness of extracted motor unit samples. Clinical Neurophysiology, 2019, 130, 388-395.	1.5	6
42	Non-invasive Decoding of the Motoneurons: A Guided Source Separation Method Based on Convolution Kernel Compensation With Clustered Initial Points. Frontiers in Computational Neuroscience, 2019, 13, 14.	2.1	17
43	High-density electromyographic data during isometric contractions of the ankle joint in children with cerebral palsy pre and post BoNT-A treatment. Data in Brief, 2019, 24, 103840.	1.0	2
44	You are as fast as your motor neurons: speed of recruitment and maximal discharge of motor neurons determine the maximal rate of force development in humans. Journal of Physiology, 2019, 597, 2445-2456.	2.9	205
45	Motor Unit Identification From High-Density Surface Electromyograms in Repeated Dynamic Muscle Contractions. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 66-75.	4.9	59
46	Tremor severity in Parkinson's disease and cortical changes of areas controlling movement sequencing: A preliminary study. Journal of Neuroscience Research, 2018, 96, 1341-1352.	2.9	12
47	Novel Method for Accuracy Assessment of Individual Motor Unit Firing Identification from High-Density Surface Electromyograms. , 2018, , .		1
48	Surface EMG Analysis of Age-related Changes in Motor Unit Firing Rates of Triceps Surae During Isometric Plantar Flexion. , 2018, , .		0
49	Effect of Resistance Training and Fish Protein Intake on Motor Unit Firing Pattern and Motor Function of Elderly. Frontiers in Physiology, 2018, 9, 1733.	2.8	21
50	Motor Unit-Driven Identification of Pathological Tremor in Electroencephalograms. Frontiers in Neurology, 2018, 9, 879.	2.4	7
51	Comparison of Convolution Kernel Compensation and Non-Negative Matrix Factorization of Surface Electromyograms. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 1935-1944.	4.9	11
52	Decrease in force steadiness with aging is associated with increased power of the common but not independent input to motor neurons. Journal of Neurophysiology, 2018, 120, 1616-1624.	1.8	40
53	A new optical flow model for motor unit conduction velocity estimation in multichannel surface EMG. Computers in Biology and Medicine, 2017, 83, 59-68.	7.0	3
54	Progressive FastICA Peel-Off and Convolution Kernel Compensation Demonstrate High Agreement for High Density Surface EMG Decomposition. Neural Plasticity, 2016, 2016, 1-5.	2.2	26

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55	Motor Unit Characteristics after Targeted Muscle Reinnervation. PLoS ONE, 2016, 11, e0149772.	2.5	43
56	Preferential distribution of nociceptive input to motoneurons with muscle units in the cranial portion of the upper trapezius muscle. Journal of Neurophysiology, 2016, 116, 611-618.	1.8	9
57	Age-related changes in motor unit firing pattern of vastus lateralis muscle during low-moderate contraction. Age, 2016, 38, 48.	3.0	79
58	Decomposition of surface electromyograms reveals changes in motor control after 14-day bed rest. , 2016, , .		1
59	Characterization of Human Motor Units From Surface EMG Decomposition. Proceedings of the IEEE, 2016, 104, 353-373.	21.3	143
60	Multi-channel intramuscular and surface EMG decomposition by convolutive blind source separation. Journal of Neural Engineering, 2016, 13, 026027.	3.5	391
61	Estimating reflex responses in large populations of motor units by decomposition of the high-density surface electromyogram. Journal of Physiology, 2015, 593, 4305-4318.	2.9	46
62	The Phase Difference Between Neural Drives to Antagonist Muscles in Essential Tremor Is Associated with the Relative Strength of Supraspinal and Afferent Input. Journal of Neuroscience, 2015, 35, 8925-8937.	3.6	56
63	Classification of motor unit activity following targeted muscle reinnervation. , 2015, , .		10
64	Examination of Poststroke Alteration in Motor Unit Firing Behavior Using High-Density Surface EMG Decomposition. IEEE Transactions on Biomedical Engineering, 2015, 62, 1242-1252.	4.2	81
65	Human?Machine Interfacing by Decoding the Surface Electromyogram [Life Sciences]. IEEE Signal Processing Magazine, 2015, 32, 115-120.	5.6	47
66	Influence of common synaptic input to motor neurons on the neural drive to muscle in essential tremor. Journal of Neurophysiology, 2015, 113, 182-191.	1.8	58
67	The Extraction of Neural Information from the Surface EMG for the Control of Upper-Limb Prostheses: Emerging Avenues and Challenges. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 797-809.	4.9	725
68	Surface EMG pre-processing techniques for the detection of common input to motor neuron populations. , 2013, , .		6
69	Real-Time Motor Unit Identification From High-Density Surface EMG. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2013, 21, 949-958.	4.9	106
70	On detection of pathological tremor in electroencephalograms. , 2011, , .		0
71	Experimental Analysis of Accuracy in the Identification of Motor Unit Spike Trains From High-Density Surface EMG. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 221-229.	4.9	183
72	Decoding the neural drive to muscles from the surface electromyogram. Clinical Neurophysiology, 2010, 121, 1616-1623.	1.5	279

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73	Fluctuations in isometric muscle force can be described by one linear projection of low-frequency components of motor unit discharge rates. <i>Journal of Physiology</i> , 2009, 587, 5925-5938.	2.9	236
74	Estimating motor unit discharge patterns from high-density surface electromyogram. <i>Clinical Neurophysiology</i> , 2009, 120, 551-562.	1.5	234
75	Analysis of motor units with high-density surface electromyography. <i>Journal of Electromyography and Kinesiology</i> , 2008, 18, 879-890.	1.7	246
76	Multichannel Blind Source Separation Using Convolution Kernel Compensation. <i>IEEE Transactions on Signal Processing</i> , 2007, 55, 4487-4496.	5.3	421
77	Gradient Convolution Kernel Compensation Applied to Surface Electromyograms. , 2007, , 617-624.		61
78	Quest for effective use of computer technology in education: From natural sciences to medicine. <i>Computer Applications in Engineering Education</i> , 2003, 11, 116-131.	3.4	4