

Dario Farina

List of Publications by Year in descending order

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439
papers

28,065
citations

3334

91
h-index

10158

140
g-index

465
all docs

465
docs citations

465
times ranked

10886
citing authors

#	ARTICLE	IF	CITATIONS
1	The extraction of neural strategies from the surface EMG. <i>Journal of Applied Physiology</i> , 2004, 96, 1486-1495.	2.5	1,166
2	The Extraction of Neural Information from the Surface EMG for the Control of Upper-Limb Prostheses: Emerging Avenues and Challenges. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2014, 22, 797-809.	4.9	725
3	Multi-channel intramuscular and surface EMG decomposition by convolutive blind source separation. <i>Journal of Neural Engineering</i> , 2016, 13, 026027.	3.5	391
4	The extraction of neural strategies from the surface EMG: an update. <i>Journal of Applied Physiology</i> , 2014, 117, 1215-1230.	2.5	378
5	Influence of amplitude cancellation on the simulated surface electromyogram. <i>Journal of Applied Physiology</i> , 2005, 98, 120-131.	2.5	324
6	Linear and Nonlinear Regression Techniques for Simultaneous and Proportional Myoelectric Control. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2014, 22, 269-279.	4.9	298
7	Influence of anatomical, physical, and detection-system parameters on surface EMG. <i>Biological Cybernetics</i> , 2002, 86, 445-456.	1.3	296
8	Comparison of algorithms for estimation of EMG variables during voluntary isometric contractions. <i>Journal of Electromyography and Kinesiology</i> , 2000, 10, 337-349.	1.7	279
9	Decoding the neural drive to muscles from the surface electromyogram. <i>Clinical Neurophysiology</i> , 2010, 121, 1616-1623.	1.5	279
10	Accurate identification of motor unit discharge patterns from high-density surface EMG and validation with a novel signal-based performance metric. <i>Journal of Neural Engineering</i> , 2014, 11, 016008.	3.5	279
11	Myoelectric Control of Artificial Limbs—Is There a Need to Change Focus? [In the Spotlight]. <i>IEEE Signal Processing Magazine</i> , 2012, 29, 152-150.	5.6	275
12	Analysis of motor units with high-density surface electromyography. <i>Journal of Electromyography and Kinesiology</i> , 2008, 18, 879-890.	1.7	246
13	Man/machine interface based on the discharge timings of spinal motor neurons after targeted muscle reinnervation. <i>Nature Biomedical Engineering</i> , 2017, 1, .	22.5	245
14	EMG-Driven Forward-Dynamic Estimation of Muscle Force and Joint Moment about Multiple Degrees of Freedom in the Human Lower Extremity. <i>PLoS ONE</i> , 2012, 7, e52618.	2.5	239
15	Simultaneous and Proportional Estimation of Hand Kinematics From EMG During Mirrored Movements at Multiple Degrees-of-Freedom. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2012, 20, 371-378.	4.9	238
16	Motor unit recruitment strategies investigated by surface EMG variables. <i>Journal of Applied Physiology</i> , 2002, 92, 235-247.	2.5	237
17	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
18	The linear electrode array: a useful tool with many applications. <i>Journal of Electromyography and Kinesiology</i> , 2003, 13, 37-47.	1.7	234

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19	Estimating motor unit discharge patterns from high-density surface electromyogram. <i>Clinical Neurophysiology</i> , 2009, 120, 551-562.	1.5	234
20	A novel approach for precise simulation of the EMG signal detected by surface electrodes. <i>IEEE Transactions on Biomedical Engineering</i> , 2001, 48, 637-646.	4.2	229
21	Surface Electromyography for Noninvasive Characterization of Muscle. <i>Exercise and Sport Sciences Reviews</i> , 2001, 29, 20-25.	3.0	227
22	Intuitive, Online, Simultaneous, and Proportional Myoelectric Control Over Two Degrees-of-Freedom in Upper Limb Amputees. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2014, 22, 501-510.	4.9	223
23	Simultaneous and Proportional Force Estimation for Multifunction Myoelectric Prostheses Using Mirrored Bilateral Training. <i>IEEE Transactions on Biomedical Engineering</i> , 2011, 58, 681-688.	4.2	212
24	The increase in muscle force after 4 weeks of strength training is mediated by adaptations in motor unit recruitment and rate coding. <i>Journal of Physiology</i> , 2019, 597, 1873-1887.	2.9	212
25	Precise temporal association between cortical potentials evoked by motor imagination and afference induces cortical plasticity. <i>Journal of Physiology</i> , 2012, 590, 1669-1682.	2.9	210
26	Detection of movement intention from single-trial movement-related cortical potentials. <i>Journal of Neural Engineering</i> , 2011, 8, 066009.	3.5	208
27	Common Synaptic Input to Motor Neurons, Motor Unit Synchronization, and Force Control. <i>Exercise and Sport Sciences Reviews</i> , 2015, 43, 23-33.	3.0	208
28	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. <i>Journal of Physiology</i> , 2019, 597, 2445-2456.	2.9	205
29	Tutorial: Analysis of motor unit discharge characteristics from high-density surface EMG signals. <i>Journal of Electromyography and Kinesiology</i> , 2020, 53, 102426.	1.7	193
30	Prosthetic Myoelectric Control Strategies: A Clinical Perspective. <i>Current Surgery Reports</i> , 2014, 2, 1.	0.9	191
31	Efficient neuroplasticity induction in chronic stroke patients by an associative brain-computer interface. <i>Journal of Neurophysiology</i> , 2016, 115, 1410-1421.	1.8	189
32	A Surface EMG Generation Model With Multilayer Cylindrical Description of the Volume Conductor. <i>IEEE Transactions on Biomedical Engineering</i> , 2004, 51, 415-426.	4.2	186
33	Experimental Analysis of Accuracy in the Identification of Motor Unit Spike Trains From High-Density Surface EMG. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2010, 18, 221-229.	4.9	183
34	Is Accurate Mapping of EMG Signals on Kinematics Needed for Precise Online Myoelectric Control?. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2014, 22, 549-558.	4.9	177
35	Effect of Experimental Muscle Pain on Motor Unit Firing Rate and Conduction Velocity. <i>Journal of Neurophysiology</i> , 2004, 91, 1250-1259.	1.8	172
36	Estimation of single motor unit conduction velocity from surface electromyogram signals detected with linear electrode arrays. <i>Medical and Biological Engineering and Computing</i> , 2001, 39, 225-236.	2.8	171

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37	Nonlinear surface EMG analysis to detect changes of motor unit conduction velocity and synchronization. <i>Journal of Applied Physiology</i> , 2002, 93, 1753-1763.	2.5	170
38	Consensus for experimental design in electromyography (CEDE) project: Amplitude normalization matrix. <i>Journal of Electromyography and Kinesiology</i> , 2020, 53, 102438.	1.7	170
39	Enhanced Low-Latency Detection of Motor Intention From EEG for Closed-Loop Brain-Computer Interface Applications. <i>IEEE Transactions on Biomedical Engineering</i> , 2014, 61, 288-296.	4.2	168
40	Motor modules of human locomotion: influence of EMG averaging, concatenation, and number of step cycles. <i>Frontiers in Human Neuroscience</i> , 2014, 8, 335.	2.0	166
41	Self-Correcting Pattern Recognition System of Surface EMG Signals for Upper Limb Prosthesis Control. <i>IEEE Transactions on Biomedical Engineering</i> , 2014, 61, 1167-1176.	4.2	163
42	Surface EMG crosstalk between knee extensor muscles: Experimental and model results. <i>Muscle and Nerve</i> , 2002, 26, 681-695.	2.2	161
43	Geometrical factors in surface EMG of the vastus medialis and lateralis muscles. <i>Journal of Electromyography and Kinesiology</i> , 2000, 10, 327-336.	1.7	158
44	Hybrid neuromusculoskeletal modeling to best track joint moments using a balance between muscle excitations derived from electromyograms and optimization. <i>Journal of Biomechanics</i> , 2014, 47, 3613-3621.	2.1	158
45	Simultaneous control of multiple functions of bionic hand prostheses: Performance and robustness in end users. <i>Science Robotics</i> , 2018, 3, .	17.6	158
46	Detecting the Unique Representation of Motor-Unit Action Potentials in the Surface Electromyogram. <i>Journal of Neurophysiology</i> , 2008, 100, 1223-1233.	1.8	153
47	The effective neural drive to muscles is the common synaptic input to motor neurons. <i>Journal of Physiology</i> , 2014, 592, 3427-3441.	2.9	153
48	EMG-based simultaneous and proportional estimation of wrist/hand kinematics in uni-lateral trans-radial amputees. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2012, 9, 42.	4.6	152
49	Identifying Representative Synergy Matrices for Describing Muscular Activation Patterns During Multidirectional Reaching in the Horizontal Plane. <i>Journal of Neurophysiology</i> , 2010, 103, 1532-1542.	1.8	150
50	Principles of Motor Unit Physiology Evolve With Advances in Technology. <i>Physiology</i> , 2016, 31, 83-94.	3.1	147
51	Multiday EMG-Based Classification of Hand Motions with Deep Learning Techniques. <i>Sensors</i> , 2018, 18, 2497.	3.8	146
52	Extracting Signals Robust to Electrode Number and Shift for Online Simultaneous and Proportional Myoelectric Control by Factorization Algorithms. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2014, 22, 623-633.	4.9	145
53	Characterization of Human Motor Units From Surface EMG Decomposition. <i>Proceedings of the IEEE</i> , 2016, 104, 353-373.	21.3	143
54	Noninvasive estimation of motor unit conduction velocity distribution using linear electrode arrays. <i>IEEE Transactions on Biomedical Engineering</i> , 2000, 47, 380-388.	4.2	140

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55	Tracking motor units longitudinally across experimental sessions with high-density surface electromyography. <i>Journal of Physiology</i> , 2017, 595, 1479-1496.	2.9	139
56	Methods for estimating muscle fibre conduction velocity from surface electromyographic signals. <i>Medical and Biological Engineering and Computing</i> , 2004, 42, 432-445.	2.8	137
57	A Closed-Loop Brain-Computer Interface Triggering an Active Ankle-Foot Orthosis for Inducing Cortical Neural Plasticity. <i>IEEE Transactions on Biomedical Engineering</i> , 2014, 61, 2092-2101.	4.2	137
58	Standardising surface electromyogram recordings for assessment of activity and fatigue in the human upper trapezius muscle. <i>European Journal of Applied Physiology</i> , 2002, 86, 469-478.	2.5	136
59	Spatial Correlation of High Density EMG Signals Provides Features Robust to Electrode Number and Shift in Pattern Recognition for Myocontrol. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2015, 23, 189-198.	4.9	136
60	Motor unit behavior during submaximal contractions following six weeks of either endurance or strength training. <i>Journal of Applied Physiology</i> , 2010, 109, 1455-1466.	2.5	132
61	Closed-Loop Control of Grasping With a Myoelectric Hand Prosthesis: Which Are the Relevant Feedback Variables for Force Control?. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2014, 22, 1041-1052.	4.9	132
62	Influence of the training set on the accuracy of surface EMG classification in dynamic contractions for the control of multifunction prostheses. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2011, 8, 25.	4.6	131
63	Peripheral Electrical Stimulation Triggered by Self-Paced Detection of Motor Intention Enhances Motor Evoked Potentials. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2012, 20, 595-604.	4.9	129
64	Assessment of single motor unit conduction velocity during sustained contractions of the tibialis anterior muscle with advanced spike triggered averaging. <i>Journal of Neuroscience Methods</i> , 2002, 115, 1-12.	2.5	126
65	User adaptation in long-term, open-loop myoelectric training: implications for EMG pattern recognition in prosthesis control. <i>Journal of Neural Engineering</i> , 2015, 12, 046005.	3.5	126
66	Improving the Robustness of Myoelectric Pattern Recognition for Upper Limb Prostheses by Covariate Shift Adaptation. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2016, 24, 961-970.	4.9	126
67	Motor unit recruitment strategies and muscle properties determine the influence of synaptic noise on force steadiness. <i>Journal of Neurophysiology</i> , 2012, 107, 3357-3369.	1.8	123
68	Blind source identification from the multichannel surface electromyogram. <i>Physiological Measurement</i> , 2014, 35, R143-R165.	2.1	121
69	Neural Data-Driven Musculoskeletal Modeling for Personalized Neurorehabilitation Technologies. <i>IEEE Transactions on Biomedical Engineering</i> , 2016, 63, 879-893.	4.2	121
70	Neuromuscular adaptation in experimental and clinical neck pain. <i>Journal of Electromyography and Kinesiology</i> , 2008, 18, 255-261.	1.7	118
71	Bionic Limbs: Clinical Reality and Academic Promises. <i>Science Translational Medicine</i> , 2014, 6, 257ps12.	12.4	117
72	Bionic reconstruction to restore hand function after brachial plexus injury: a case series of three patients. <i>Lancet, The</i> , 2015, 385, 2183-2189.	13.7	116

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73	Linear transmission of cortical oscillations to the neural drive to muscles is mediated by common projections to populations of motoneurons in humans. <i>Journal of Physiology</i> , 2011, 589, 629-637.	2.9	115
74	Associations between motor unit action potential parameters and surface EMG features. <i>Journal of Applied Physiology</i> , 2017, 123, 835-843.	2.5	115
75	Motor Neuron Pools of Synergistic Thigh Muscles Share Most of Their Synaptic Input. <i>Journal of Neuroscience</i> , 2015, 35, 12207-12216.	3.6	114
76	A brain-computer interface for single-trial detection of gait initiation from movement related cortical potentials. <i>Clinical Neurophysiology</i> , 2015, 126, 154-159.	1.5	112
77	Compensation of the effect of sub-cutaneous tissue layers on surface EMG: a simulation study. <i>Medical Engineering and Physics</i> , 1999, 21, 487-497.	1.7	111
78	Assessment of Average Muscle Fiber Conduction Velocity From Surface EMG Signals During Fatiguing Dynamic Contractions. <i>IEEE Transactions on Biomedical Engineering</i> , 2004, 51, 1383-1393.	4.2	111
79	New developments in prosthetic arm systems. <i>Orthopedic Research and Reviews</i> , 2016, Volume 8, 31-39.	1.1	111
80	Axonal components of nerves innervating the human arm. <i>Annals of Neurology</i> , 2017, 82, 396-408.	5.3	111
81	High-Density Electromyography and Motor Skill Learning for Robust Long-Term Control of a 7-DoF Robot Arm. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2016, 24, 424-433.	4.9	110
82	Analysis of intramuscular electromyogram signals. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 357-368.	3.4	106
83	A musculoskeletal model of human locomotion driven by a low dimensional set of impulsive excitation primitives. <i>Frontiers in Computational Neuroscience</i> , 2013, 7, 79.	2.1	106
84	Robust Real-Time Musculoskeletal Modeling Driven by Electromyograms. <i>IEEE Transactions on Biomedical Engineering</i> , 2018, 65, 556-564.	4.2	105
85	Modeling and simulating the neuromuscular mechanisms regulating ankle and knee joint stiffness during human locomotion. <i>Journal of Neurophysiology</i> , 2015, 114, 2509-2527.	1.8	104
86	User adaptation in Myoelectric Man-Machine Interfaces. <i>Scientific Reports</i> , 2017, 7, 4437.	3.3	104
87	Toward higher-performance bionic limbs for wider clinical use. <i>Nature Biomedical Engineering</i> , 2023, 7, 473-485.	22.5	104
88	Amplitude cancellation reduces the size of motor unit potentials averaged from the surface EMG. <i>Journal of Applied Physiology</i> , 2006, 100, 1928-1937.	2.5	100
89	Identification of common synaptic inputs to motor neurons from the rectified electromyogram. <i>Journal of Physiology</i> , 2013, 591, 2403-2418.	2.9	98
90	Multichannel Electrotactile Feedback With Spatial and Mixed Coding for Closed-Loop Control of Grasping Force in Hand Prostheses. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2017, 25, 183-195.	4.9	98

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91	Robust and accurate decoding of motoneuron behaviour and prediction of the resulting force output. <i>Journal of Physiology</i> , 2018, 596, 2643-2659.	2.9	98
92	Postural activation of the human medial gastrocnemius muscle: are the muscle units spatially localised?. <i>Journal of Physiology</i> , 2011, 589, 431-443.	2.9	97
93	Effect of arm position on the prediction of kinematics from EMG in amputees. <i>Medical and Biological Engineering and Computing</i> , 2013, 51, 143-151.	2.8	97
94	The clinical relevance of advanced artificial feedback in the control of a multi-functional myoelectric prosthesis. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2018, 15, 28.	4.6	97
95	Robust simultaneous myoelectric control of multiple degrees of freedom in wrist-hand prostheses by real-time neuromusculoskeletal modeling. <i>Journal of Neural Engineering</i> , 2018, 15, 066026.	3.5	97
96	Surface electromyographic amplitude does not identify differences in neural drive to synergistic muscles. <i>Journal of Applied Physiology</i> , 2018, 124, 1071-1079.	2.5	96
97	Assessment of low back muscle fatigue by surface EMG signal analysis: methodological aspects. <i>Journal of Electromyography and Kinesiology</i> , 2003, 13, 319-332.	1.7	95
98	Stereovision and augmented reality for closed-loop control of grasping in hand prostheses. <i>Journal of Neural Engineering</i> , 2014, 11, 046001.	3.5	95
99	Consensus for experimental design in electromyography (CEDE) project: Electrode selection matrix. <i>Journal of Electromyography and Kinesiology</i> , 2019, 48, 128-144.	1.7	95
100	Accessing the Neural Drive to Muscle and Translation to Neurorehabilitation Technologies. <i>IEEE Reviews in Biomedical Engineering</i> , 2012, 5, 3-14.	18.0	93
101	Optimization of wavelets for classification of movement-related cortical potentials generated by variation of force-related parameters. <i>Journal of Neuroscience Methods</i> , 2007, 162, 357-363.	2.5	92
102	Changes in H reflex and V wave following short-term endurance and strength training. <i>Journal of Applied Physiology</i> , 2012, 112, 54-63.	2.5	90
103	Sensor fusion and computer vision for context-aware control of a multi degree-of-freedom prosthesis. <i>Journal of Neural Engineering</i> , 2015, 12, 066022.	3.5	89
104	High-density surface electromyography provides reliable estimates of motor unit behavior. <i>Clinical Neurophysiology</i> , 2016, 127, 2534-2541.	1.5	89
105	Concentric-ring electrode systems for noninvasive detection of single motor unit activity. <i>IEEE Transactions on Biomedical Engineering</i> , 2001, 48, 1326-1334.	4.2	87
106	Neuromuscular adjustments that constrain submaximal EMG amplitude at task failure of sustained isometric contractions. <i>Journal of Applied Physiology</i> , 2011, 111, 485-494.	2.5	87
107	Accurate and representative decoding of the neural drive to muscles in humans with multi-channel intramuscular thin-film electrodes. <i>Journal of Physiology</i> , 2015, 593, 3789-3804.	2.9	87
108	Online Tremor Suppression Using Electromyography and Low-Level Electrical Stimulation. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2015, 23, 385-395.	4.9	87

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109	The human motor neuron pools receive a dominant slow-varying common synaptic input. <i>Journal of Physiology</i> , 2016, 594, 5491-5505.	2.9	83
110	Integrated and flexible multichannel interface for electrotactile stimulation. <i>Journal of Neural Engineering</i> , 2016, 13, 046014.	3.5	82
111	EMG Biofeedback for online predictive control of grasping force in a myoelectric prosthesis. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2015, 12, 55.	4.6	81
112	Context-Dependent Upper Limb Prosthesis Control for Natural and Robust Use. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2016, 24, 744-753.	4.9	81
113	Long-term implant of intramuscular sensors and nerve transfers for wireless control of robotic arms in above-elbow amputees. <i>Science Robotics</i> , 2019, 4, .	17.6	81
114	Electrotactile EMG feedback improves the control of prosthesis grasping force. <i>Journal of Neural Engineering</i> , 2016, 13, 056010.	3.5	80
115	Translating Research on Myoelectric Control into Clinics—Are the Performance Assessment Methods Adequate?. <i>Frontiers in Neurorobotics</i> , 2017, 11, 7.	2.8	79
116	Surface EMG Crosstalk Evaluated from Experimental Recordings and Simulated Signals. <i>Methods of Information in Medicine</i> , 2004, 43, 30-35.	1.2	78
117	Non-invasive characterization of motor unit behaviour in pathological tremor. <i>Journal of Neural Engineering</i> , 2012, 9, 056011.	3.5	78
118	Effect of power, pedal rate, and force on average muscle fiber conduction velocity during cycling. <i>Journal of Applied Physiology</i> , 2004, 97, 2035-2041.	2.5	77
119	Longitudinal Case Study of Regression-Based Hand Prosthesis Control in Daily Life. <i>Frontiers in Neuroscience</i> , 2020, 14, 600.	2.8	77
120	The proportion of common synaptic input to motor neurons increases with an increase in net excitatory input. <i>Journal of Applied Physiology</i> , 2015, 119, 1337-1346.	2.5	76
121	Voluntary control of wearable robotic exoskeletons by patients with paresis via neuromechanical modeling. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2019, 16, 91.	4.6	76
122	Detection of movement-related cortical potentials based on subject-independent training. <i>Medical and Biological Engineering and Computing</i> , 2013, 51, 507-512.	2.8	75
123	Experimental muscle pain changes motor control strategies in dynamic contractions. <i>Experimental Brain Research</i> , 2005, 164, 215-224.	1.5	74
124	Factors Influencing the Estimates of Correlation between Motor Unit Activities in Humans. <i>PLoS ONE</i> , 2012, 7, e44894.	2.5	73
125	Detecting and classifying movement-related cortical potentials associated with hand movements in healthy subjects and stroke patients from single-electrode, single-trial EEG. <i>Journal of Neural Engineering</i> , 2015, 12, 056013.	3.5	70
126	Multichannel thin-film electrode for intramuscular electromyographic recordings. <i>Journal of Applied Physiology</i> , 2008, 104, 821-827.	2.5	69

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127	Online mapping of EMG signals into kinematics by autoencoding. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2018, 15, 21.	4.6	68
128	Experimental muscle pain reduces initial motor unit discharge rates during sustained submaximal contractions. <i>Journal of Applied Physiology</i> , 2005, 98, 999-1005.	2.5	66
129	Short- and Long-Term Learning of Feedforward Control of a Myoelectric Prosthesis with Sensory Feedback by Amputees. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2017, 25, 2133-2145.	4.9	66
130	Force Steadiness: From Motor Units to Voluntary Actions. <i>Physiology</i> , 2021, 36, 114-130.	3.1	66
131	A Multi-Class Proportional Myocontrol Algorithm for Upper Limb Prosthesis Control: Validation in Real-Life Scenarios on Amputees. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2015, 23, 827-836.	4.9	65
132	Predicting wrist kinematics from motor unit discharge timings for the control of active prostheses. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2019, 16, 47.	4.6	65
133	Hand gesture recognition based on motor unit spike trains decoded from high-density electromyography. <i>Biomedical Signal Processing and Control</i> , 2020, 55, 101637.	5.7	65
134	FS-HGR: Few-Shot Learning for Hand Gesture Recognition via Electromyography. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2021, 29, 1004-1015.	4.9	65
135	Decorrelation of cortical inputs and motoneuron output. <i>Journal of Neurophysiology</i> , 2011, 106, 2688-2697.	1.8	64
136	Estimation of Grasping Force from Features of Intramuscular EMG Signals with Mirrored Bilateral Training. <i>Annals of Biomedical Engineering</i> , 2012, 40, 648-656.	2.5	64
137	Relationship between grasping force and features of single-channel intramuscular EMG signals. <i>Journal of Neuroscience Methods</i> , 2009, 185, 143-150.	2.5	63
138	Differential Motor Unit Changes after Endurance or High-Intensity Interval Training. <i>Medicine and Science in Sports and Exercise</i> , 2017, 49, 1126-1136.	0.4	63
139	A Finite Element Model for Describing the Effect of Muscle Shortening on Surface EMG. <i>IEEE Transactions on Biomedical Engineering</i> , 2006, 53, 593-600.	4.2	62
140	Amplitude Cancellation of Motor-Unit Action Potentials in the Surface Electromyogram Can Be Estimated With Spike-Triggered Averaging. <i>Journal of Neurophysiology</i> , 2008, 100, 431-440.	1.8	61
141	Adjustments Differ Among Low-Threshold Motor Units During Intermittent, Isometric Contractions. <i>Journal of Neurophysiology</i> , 2009, 101, 350-359.	1.8	61
142	Effect of pain on the modulation in discharge rate of sternocleidomastoid motor units with force direction. <i>Clinical Neurophysiology</i> , 2010, 121, 744-753.	1.5	61
143	Muscles from the same muscle group do not necessarily share common drive: evidence from the human triceps surae. <i>Journal of Applied Physiology</i> , 2021, 130, 342-354.	2.5	61
144	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

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145	HyVE: Hybrid Vibro-Electrotactile Stimulation for Sensory Feedback and Substitution in Rehabilitation. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2014, 22, 290-301.	4.9	60
146	Proportional estimation of finger movements from high-density surface electromyography. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2016, 13, 73.	4.6	60
147	A model for the generation of synthetic intramuscular EMG signals to test decomposition algorithms. <i>IEEE Transactions on Biomedical Engineering</i> , 2001, 48, 66-77.	4.2	59
148	Selectivity of spatial filters for surface EMG detection from the tibialis anterior muscle. <i>IEEE Transactions on Biomedical Engineering</i> , 2003, 50, 354-364.	4.2	59
149	Estimation of average muscle fiber conduction velocity from two-dimensional surface EMG recordings. <i>Journal of Neuroscience Methods</i> , 2004, 134, 199-208.	2.5	58
150	Influence of common synaptic input to motor neurons on the neural drive to muscle in essential tremor. <i>Journal of Neurophysiology</i> , 2015, 113, 182-191.	1.8	58
151	In Vivo Neuromechanics: Decoding Causal Motor Neuron Behavior with Resulting Musculoskeletal Function. <i>Scientific Reports</i> , 2017, 7, 13465.	3.3	58
152	Decoding Motor Unit Activity From Forearm Muscles: Perspectives for Myoelectric Control. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2018, 26, 244-251.	4.9	58
153	Distribution of muscle fibre conduction velocity for representative samples of motor units in the full recruitment range of the tibialis anterior muscle. <i>Acta Physiologica</i> , 2018, 222, e12930.	3.8	58
154	Counterpoint: Spectral properties of the surface emg do not provide information about motor unit recruitment and muscle fiber type. <i>Journal of Applied Physiology</i> , 2008, 105, 1673-1674.	2.5	57
155	Surface EMG Decomposition Requires an Appropriate Validation. <i>Journal of Neurophysiology</i> , 2011, 105, 981-982.	1.8	57
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