Carlo J De Luca

List of Publications by Year
in descending order

74 papers	10,915 citations	61984 43 h-index	95266 68 g-index
74 all docs	74 docs citations	74 times ranked	6593 citing authors

#	Article	IF	Citations
1	The common input notion, conceived and sustained by conjecture. Journal of Neurophysiology, 2016, 115, 1079-1080.	1.8	1
2	The compensatory interaction between motor unit firing behavior and muscle force during fatigue. Journal of Neurophysiology, 2016, 116, 1579-1585.	1.8	75
3	Synchronization of motor unit firings: an epiphenomenon of firing rate characteristics not common inputs. Journal of Neurophysiology, 2016, 115, 178-192.	1.8	29
4	Is the notion of central fatigue based on a solid foundation?. Journal of Neurophysiology, 2016, 115, 967-977.	1.8	16
5	Clarification of methods used to validate surface EMG decomposition algorithms as described by Farina et al. (2014). Journal of Applied Physiology, 2015, 118, 1084-1084.	2.5	21
6	Biomechanical benefits of the onion-skin motor unit control scheme. Journal of Biomechanics, 2015, 48, 195-203.	2.1	70
7	Decomposition of surface EMG signals from cyclic dynamic contractions. Journal of Neurophysiology, 2015, 113, 1941-1951.	1.8	88
8	Error reduction in EMG signal decomposition. Journal of Neurophysiology, 2014, 112, 2718-2728.	1.8	24
9	Statistically rigorous calculations do not support common input and long-term synchronization of motor-unit firings. Journal of Neurophysiology, 2014, 112, 2729-2744.	1.8	13
10	Transposed firing activation of motor units. Journal of Neurophysiology, 2014, 112, 962-970.	1.8	21
11	Dynamical Learning and Tracking of Tremor and Dyskinesia From Wearable Sensors. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 982-991.	4.9	82
12	Highâ€resolution tracking of motor disorders in Parkinson's disease during unconstrained activity. Movement Disorders, 2013, 28, 1080-1087.	3.9	55
13	Neural control of muscle force: indications from a simulation model. Journal of Neurophysiology, 2013, 109, 1548-1570.	1.8	74
14	Preferred sensor sites for surface EMG signal decomposition. Physiological Measurement, 2012, 33, 195-206.	2.1	53
15	Hierarchical control of motor units in voluntary contractions. Journal of Neurophysiology, 2012, 107, 178-195.	1.8	167
16	Inter-electrode spacing of surface EMG sensors: Reduction of crosstalk contamination during voluntary contractions. Journal of Biomechanics, 2012, 45, 555-561.	2.1	153
17	Reply to Farina and Enoka: The Reconstruct-and-Test Approach Is the Most Appropriate Validation for Surface EMG Signal Decomposition to Date. Journal of Neurophysiology, 2011, 105, 983-984.	1.8	36
18	Filtering the surface EMG signal: Movement artifact and baseline noise contamination. Journal of Biomechanics, 2010, 43, 1573-1579.	2.1	892

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19	Relationship Between Firing Rate and Recruitment Threshold of Motoneurons in Voluntary Isometric Contractions. Journal of Neurophysiology, 2010, 104, 1034-1046.	1.8	234
20	High-yield decomposition of surface EMG signals. Clinical Neurophysiology, 2010, 121, 1602-1615.	1.5	299
21	Surface EMG signal decomposition using empirically sustainable biosignal separation principles. , 2009, 2009, 4986-9.		5
22	Motor unit control and force fluctuation during fatigue. Journal of Applied Physiology, 2009, 107, 235-243.	2.5	112
23	A Combined sEMG and Accelerometer System for Monitoring Functional Activity in Stroke. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2009, 17, 585-594.	4.9	111
24	Motor Unit Recruitment and Proprioceptive Feedback Decrease the Common Drive. Journal of Neurophysiology, 2009, 101, 1620-1628.	1.8	44
25	A simulation study for a surface EMG sensor that detects distinguishable motor unit action potentials. Journal of Neuroscience Methods, 2008, 168, 54-63.	2.5	9
26	Aliasing rejection in Precision Decomposition of EMG signals. , 2008, 2008, 4972-5.		11
27	Decomposition of indwelling EMG signals. Journal of Applied Physiology, 2008, 105, 700-710.	2.5	74
28	Ordered Motor-Unit Firing Behavior in Acute Cerebellar Stroke. Journal of Neurophysiology, 2006, 96, 2769-2774.	1.8	17
29	Multi-Receiver Precision Decomposition of Intramuscular EMG Signals. , 2006, 2006, 1252-5.		7
30	Decomposition of Surface EMG Signals. Journal of Neurophysiology, 2006, 96, 1646-1657.	1.8	383
31	Multi-Receiver Precision Decomposition of Intramuscular EMG Signals. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	2
32	Firing rates of motor units in human vastus lateralis muscle during fatiguing isometric contractions. Journal of Applied Physiology, 2005, 99, 268-280.	2.5	167
33	Improved resolution of pulse superpositions in a knowledge-based system EMG decomposition. , 2004, 2006, 69-71.		12
34	The role of plantar cutaneous sensation in unperturbed stance. Experimental Brain Research, 2004, 156, 505-512.	1.5	336
35	Reduced plantar sensitivity alters postural responses to lateral perturbations of balance. Experimental Brain Research, 2004, 157, 526-536.	1.5	127
36	Recruitment Order of Motor Units in Human Vastus Lateralis Muscle Is Maintained During Fatiguing Contractions. Journal of Neurophysiology, 2003, 90, 2919-2927.	1.8	139

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37	Activation imbalances in lumbar spine muscles in the presence of chronic low back pain. Journal of Applied Physiology, 2003, 94, 1410-1420.	2.5	117
38	Common Drive in Motor Units of a Synergistic Muscle Pair. Journal of Neurophysiology, 2002, 87, 2200-2204.	1.8	143
39	Multiple Motor Unit Recordings of Laryngeal Muscles: The Technique of Vector Laryngeal Electromyography. Laryngoscope, 2002, 112, 2196-2203.	2.0	17
40	Effects of Aging on Motor-Unit Control Properties. Journal of Neurophysiology, 1999, 82, 2081-2091.	1.8	210
41	Decomposition and Analysis of Intramuscular Electromyographic Signals. , 1999, , 757-776.		13
42	Hand Dominance and Motor Unit Firing Behavior. Journal of Neurophysiology, 1998, 80, 1373-1382.	1.8	140
43	Electromyographic analysis of grand-pli?? in ballet and modern dancers. Medicine and Science in Sports and Exercise, 1998, 30, 1708-1720.	0.4	31
44	The Use of Surface Electromyography in Biomechanics. Journal of Applied Biomechanics, 1997, 13, 135-163.	0.8	2,182
45	Rank-ordered regulation of motor units. , 1996, 19, 563-573.		148
46	Spectral Electromyographic Assessment of Back Muscles in Patients With Low Back Muscles in Patients With Low Back Pain Undergoing Rehabilitation. Spine, 1995, 20, 38-48.	2.0	132
47	Letters to the editor. Muscle and Nerve, 1995, 18, 1490-1497.	2.2	1
48	Common drive of motor units in regulation of muscle force. Trends in Neurosciences, 1994, 17, 299-305.	8.6	397
49	Electromyographic analysis of standing posture and demi-plie in ballet and modern dancers. Medicine and Science in Sports and Exercise, 1994, 26, 771-782.	0.4	51
50	Use of the surface EMG signal for performance evaluation of back muscles. Muscle and Nerve, 1993, 16, 210-216.	2.2	220
51	Firing Rate Interactions Among Human Orbicularis Oris Motor Units. International Journal of Neuroscience, 1992, 64, 167-175.	1.6	36
52	Lateral dominance and motor unit firing behavior. Brain Research, 1992, 576, 165-167.	2.2	27
53	Recruitment threshold and muscle fiber conduction velocity of single motor units. Journal of Electromyography and Kinesiology, 1991, 1, 116-123.	1.7	67
54	Technique for detecting MUAP propagation from high-threshold motor units. Journal of Electromyography and Kinesiology, 1991, 1, 75-80.	1.7	14

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55	Fatigue, recovery, and low back pain in varsity rowers. Medicine and Science in Sports and Exercise, 1990, 22, 463???469.	0.4	103
56	Unusual motor unit firing behavior in older adults. Brain Research, 1989, 482, 136-140.	2.2	44
57	Lumbar Muscle Fatigue and Chronic Lower Back Pain. Spine, 1989, 14, 992-1001.	2.0	407
58	Surface myoelectric signal cross-talk among muscles of the leg. Electroencephalography and Clinical Neurophysiology, 1988, 69, 568-575.	0.3	280
59	Compression Induced Damage on In-Situ Severed and Intact Nerves. Orthopedics, 1987, 10, 777-784.	1.1	14
60	Median frequency of the myoelectric signal. European Journal of Applied Physiology and Occupational Physiology, 1986, 55, 457-464.	1.2	63
61	A Note on the Noninvasive Estimation of Muscle Fiber Conduction Velocity. IEEE Transactions on Biomedical Engineering, 1985, BME-32, 341-344.	4.2	120
62	Muscle Fatigue Monitor (MFM): Second Generation. IEEE Transactions on Biomedical Engineering, 1985, BME-32, 75-78.	4.2	37
63	Motor unit recruitment and firing rates interaction in the control of human muscles. Brain Research, 1985, 337, 311-319.	2.2	52
64	Median frequency of the myoelectric signal. European Journal of Applied Physiology and Occupational Physiology, 1984, 52, 258-265.	1.2	130
65	A technique for the detection, decomposition and analysis of the EMG signal. Electroencephalography and Clinical Neurophysiology, 1984, 58, 175-188.	0.3	144
66	Muscle Fatigue Monitor: A Noninvasive Device for Observing Localized Muscular Fatigue. IEEE Transactions on Biomedical Engineering, 1982, BME-29, 760-768.	4.2	84
67	A Procedure for Decomposing the Myoelectric Signal Into Its Constituent Action Potentials - Part I: Technique, Theory, and Implementation. IEEE Transactions on Biomedical Engineering, 1982, BME-29, 149-157.	4.2	259
68	A Procedure for Decomposing the Myoelectric Signal Into Its Constituent Action Potentials-Part II: Execution and Test for Accuracy. IEEE Transactions on Biomedical Engineering, 1982, BME-29, 158-164.	4.2	123
69	Frequency Parameters of the Myoelectric Signal as a Measure of Muscle Conduction Velocity. IEEE Transactions on Biomedical Engineering, 1981, BME-28, 515-523.	4.2	466
70	Physiology and Mathematics of Myoelectric Signals. IEEE Transactions on Biomedical Engineering, 1979, BME-26, 313-325.	4.2	546
71	The relation between the myoelectric signal and physiological properties of constant-force isometric contractions. Electroencephalography and Clinical Neurophysiology, 1978, 45, 681-698.	0.3	41
72	Control of upper-limb prostheses. Journal of Medical Engineering and Technology, 1978, 2, 57-61.	1.4	28

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73	A model for a motor unit train recorded during constant force isometric contractions. Biological Cybernetics, 1975, 19, 159-167.	1.3	27
74	An Electrode for Recording Single Motor Unit Activity During Strong Muscle Contractions. IEEE Transactions on Biomedical Engineering, 1972, BME-19, 367-372.	4.2	42