

# Sheng Li

## List of Publications by Year in descending order

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105  
papers

2,489  
citations

218677

26  
h-index

254184

43  
g-index

108  
all docs

108  
docs citations

108  
times ranked

2047  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spasticity, Motor Recovery, and Neural Plasticity after Stroke. <i>Frontiers in Neurology</i> , 2017, 8, 120.	2.4	185
2	New insights into the pathophysiology of post-stroke spasticity. <i>Frontiers in Human Neuroscience</i> , 2015, 9, 192.	2.0	149
3	Post-stroke Hemiplegic Gait: New Perspective and Insights. <i>Frontiers in Physiology</i> , 2018, 9, 1021.	2.8	141
4	A Unifying Pathophysiological Account for Post-stroke Spasticity and Disordered Motor Control. <i>Frontiers in Neurology</i> , 2019, 10, 468.	2.4	80
5	The effects of stroke and age on finger interaction in multi-finger force production tasks. <i>Clinical Neurophysiology</i> , 2003, 114, 1646-1655.	1.5	79
6	Spasticity, weakness, force variability, and sustained spontaneous motor unit discharges of resting spasticâ€”paretic biceps brachii muscles in chronic stroke. <i>Muscle and Nerve</i> , 2013, 48, 85-92.	2.2	74
7	The Effect of Motor Imagery on Spinal Segmental Excitability. <i>Journal of Neuroscience</i> , 2004, 24, 9674-9680.	3.6	73
8	Early Detection of Alzheimerâ€™s Disease Using Non-invasive Near-Infrared Spectroscopy. <i>Frontiers in Aging Neuroscience</i> , 2018, 10, 366.	3.4	68
9	Effects of motor imagery on finger force responses to transcranial magnetic stimulation. <i>Cognitive Brain Research</i> , 2004, 20, 273-280.	3.0	65
10	Central mechanisms of finger interaction during one- and two-hand force production at distal and proximal phalanges. <i>Brain Research</i> , 2002, 924, 198-208.	2.2	59
11	A New Definition of Poststroke Spasticity and the Interference of Spasticity With Motor Recovery From Acute to Chronic Stages. <i>Neurorehabilitation and Neural Repair</i> , 2021, 35, 601-610.	2.9	53
12	Voluntary Breathing Influences Corticospinal Excitability of Nonrespiratory Finger Muscles. <i>Journal of Neurophysiology</i> , 2011, 105, 512-521.	1.8	50
13	Bilateral deficit and symmetry in finger force production during two-hand multifinger tasks. <i>Experimental Brain Research</i> , 2001, 141, 530-540.	1.5	47
14	Influences of ventilation on maximal isometric force of the finger flexors. <i>Muscle and Nerve</i> , 2006, 34, 651-655.	2.2	46
15	Effects of changing wrist positions on finger flexor hypertonia in stroke survivors. <i>Muscle and Nerve</i> , 2006, 33, 183-190.	2.2	43
16	Motor Overflow and Spasticity in Chronic Stroke Share a Common Pathophysiological Process: Analysis of Within-Limb and Between-Limb EMG-EMG Coherence. <i>Frontiers in Neurology</i> , 2018, 9, 795.	2.4	40
17	Localized Electrical Impedance Myography of the Biceps Brachii Muscle during Different Levels of Isometric Contraction and Fatigue. <i>Sensors</i> , 2016, 16, 581.	3.8	39
18	Activation deficit correlates with weakness in chronic stroke: Evidence from evoked and voluntary EMG recordings. <i>Clinical Neurophysiology</i> , 2014, 125, 2413-2417.	1.5	35

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19	Practice patterns for spasticity management with phenol neurolysis. <i>Journal of Rehabilitation Medicine</i> , 2017, 49, 482-488.	1.1	35
20	Advanced Myoelectric Control for Robotic Hand-Assisted Training: Outcome from a Stroke Patient. <i>Frontiers in Neurology</i> , 2017, 8, 107.	2.4	34
21	Finger interactions studied with transcranial magnetic stimulation during multi-finger force production tasks. <i>Clinical Neurophysiology</i> , 2003, 114, 1445-1455.	1.5	32
22	Ankle and Foot Spasticity Patterns in Chronic Stroke Survivors with Abnormal Gait. <i>Toxins</i> , 2020, 12, 646.	3.4	32
23	Analysis of linear electrode array EMG for assessment of hemiparetic biceps brachii muscles. <i>Frontiers in Human Neuroscience</i> , 2015, 9, 569.	2.0	31
24	Three-Dimensional Innervation Zone Imaging from Multi-Channel Surface EMG Recordings. <i>International Journal of Neural Systems</i> , 2015, 25, 1550024.	5.2	31
25	Movement-specific enhancement of corticospinal excitability at subthreshold levels during motor imagery. <i>Experimental Brain Research</i> , 2007, 179, 517-524.	1.5	30
26	The Valsalva Maneuver Revisited: The Influence of Voluntary Breathing on Isometric Muscle Strength. <i>Journal of Strength and Conditioning Research</i> , 2009, 23, 127-132.	2.1	30
27	Correlation of Resting Elbow Angle with Spasticity in Chronic Stroke Survivors. <i>Frontiers in Neurology</i> , 2015, 6, 183.	2.4	29
28	Heart Rate Variability: A Novel Modality for Diagnosing Neuropathic Pain after Spinal Cord Injury. <i>Frontiers in Physiology</i> , 2017, 8, 495.	2.8	28
29	Interactions between imagined movement and the initiation of voluntary movement: A TMS study. <i>Clinical Neurophysiology</i> , 2009, 120, 1154-1160.	1.5	27
30	Finger Coordination and Bilateral Deficit during Two-Hand Force Production Tasks Performed by Right-Handed Subjects. <i>Journal of Applied Biomechanics</i> , 2000, 16, 379-391.	0.8	26
31	Motor unit number estimation based on high-density surface electromyography decomposition. <i>Clinical Neurophysiology</i> , 2016, 127, 3059-3065.	1.5	26
32	Acoustic Startle Reflex in Patients With Chronic Stroke at Different Stages of Motor Recovery: A Pilot Study. <i>Topics in Stroke Rehabilitation</i> , 2014, 21, 358-370.	1.9	25
33	Assessing muscle spasticity with Myotonometric and passive stretch measurements: validity of the Myotonometer. <i>Scientific Reports</i> , 2017, 7, 44022.	3.3	25
34	Finger force perception during ipsilateral and contralateral force matching tasks. <i>Experimental Brain Research</i> , 2008, 189, 301-310.	1.5	24
35	Re-evaluation of EMG-torque relation in chronic stroke using linear electrode array EMG recordings. <i>Scientific Reports</i> , 2016, 6, 28957.	3.3	24
36	Forced ventilation increases variability of isometric finger forces. <i>Neuroscience Letters</i> , 2007, 412, 243-247.	2.1	21

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37	Interlimb interactions during bilateral voluntary elbow flexion tasks in chronic hemiparetic stroke. <i>Physiological Reports</i> , 2013, 1, e00010.	1.7	21
38	Altered force perception in stroke survivors with spastic hemiplegia. <i>Journal of Rehabilitation Medicine</i> , 2015, 47, 917-923.	1.1	21
39	Bladder Neuromodulation in Acute Spinal Cord Injury via Transcutaneous Tibial Nerve Stimulation: Cystometrogram and Autonomic Nervous System Evidence From a Randomized Control Pilot Trial. <i>Frontiers in Neuroscience</i> , 2019, 13, 119.	2.8	21
40	Suppression of stimulus artifact contaminating electrically evoked electromyography. <i>NeuroRehabilitation</i> , 2014, 34, 381-389.	1.3	19
41	Quantification of Perceived Exertion During Isometric Force Production With the Borg Scale in Healthy Individuals and Patients With Chronic Stroke. <i>Topics in Stroke Rehabilitation</i> , 2014, 21, 33-39.	1.9	19
42	The Effects of Botulinum Toxin Injections on Spasticity and Motor Performance in Chronic Stroke with Spastic Hemiplegia. <i>Toxins</i> , 2020, 12, 492.	3.4	19
43	Bilateral multifinger deficits in symmetric key-pressing tasks. <i>Experimental Brain Research</i> , 2001, 140, 86-94.	1.5	18
44	Different Effects of Startling Acoustic Stimuli (SAS) on TMS-Induced Responses at Rest and during Sustained Voluntary Contraction. <i>Frontiers in Human Neuroscience</i> , 2016, 10, 396.	2.0	18
45	Phase-Dependent Respiratory-Motor Interactions in Reaction Time Tasks During Rhythmic Voluntary Breathing. <i>Motor Control</i> , 2012, 16, 493-505.	0.6	16
46	The Use of Botulinum Toxin for Treatment of Spasticity. <i>Handbook of Experimental Pharmacology</i> , 2019, 263, 127-146.	1.8	16
47	Phenol Neurolysis for Management of Focal Spasticity in the Distal Upper Extremity. <i>PM and R</i> , 2020, 12, 246-250.	1.6	16
48	Spasticity Management in Persons with Disorders of Consciousness. <i>PM and R</i> , 2021, 13, 657-665.	1.6	16
49	Perception of individual finger forces during multi-finger force production tasks. <i>Neuroscience Letters</i> , 2006, 409, 239-243.	2.1	15
50	Imaging three-dimensional innervation zone distribution in muscles from M-wave recordings. <i>Journal of Neural Engineering</i> , 2017, 14, 036011.	3.5	15
51	Innervation zone distribution of the biceps brachii muscle examined using voluntary and electrically-evoked high-density surface EMG. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2019, 16, 73.	4.6	14
52	Three dimensional innervation zone imaging in spastic muscles of stroke survivors. <i>Journal of Neural Engineering</i> , 2019, 16, 034001.	3.5	14
53	Are There Trigger Points in the Spastic Muscles? Electromyographical Evidence of Dry Needling Effects on Spastic Finger Flexors in Chronic Stroke. <i>Frontiers in Neurology</i> , 2020, 11, 78.	2.4	14
54	Many Faces of the Hidden Souls: Medical and Neurological Complications and Comorbidities in Disorders of Consciousness. <i>Brain Sciences</i> , 2021, 11, 608.	2.3	14

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55	The effect of enslaving on perception of finger forces. <i>Experimental Brain Research</i> , 2006, 172, 301-309.	1.5	13
56	A Retrospective Analysis on Clinical Practice-Based Approaches Using Zolpidem and Lorazepam in Disorders of Consciousness. <i>Brain Sciences</i> , 2021, 11, 726.	2.3	13
57	Coupling phenomena during asynchronous submaximal two-hand, multi-finger force production tasks in humans. <i>Neuroscience Letters</i> , 2002, 331, 75-78.	2.1	12
58	Error compensation during finger force production after one- and four-finger voluntarily fatiguing exercise. <i>Experimental Brain Research</i> , 2007, 181, 461-468.	1.5	12
59	Tactile, thermal, and electrical thresholds in patients with and without phantom limb pain after traumatic lower limb amputation. <i>Journal of Pain Research</i> , 2015, 8, 169.	2.0	12
60	Combined transcranial direct current stimulation and breathing-controlled electrical stimulation for management of neuropathic pain after spinal cord injury. <i>Journal of Rehabilitation Medicine</i> , 2018, 50, 814-820.	1.1	12
61	Modification of Electrical Pain Threshold by Voluntary Breathing-Controlled Electrical Stimulation (BreESTim) in Healthy Subjects. <i>PLoS ONE</i> , 2013, 8, e70282.	2.5	11
62	The Reticulospinal Pathway Does Not Increase Its Contribution to the Strength of Contralesional Muscles in Stroke Survivors as Compared to Ipsilesional Side or Healthy Controls. <i>Frontiers in Neurology</i> , 2017, 8, 627.	2.4	11
63	Neuropathic pain modulation after spinal cord injury by breathing-controlled electrical stimulation (BreESTim) is associated with restoration of autonomic dysfunction. <i>Journal of Pain Research</i> , 2018, Volume 11, 2331-2341.	2.0	11
64	A startling acoustic stimulation (SAS)-TMS approach to assess the reticulospinal system in healthy and stroke subjects. <i>Journal of the Neurological Sciences</i> , 2019, 399, 82-88.	0.6	11
65	Improving Botulinum Toxin Efficiency in Treating Post-Stroke Spasticity Using 3D Innervation Zone Imaging. <i>International Journal of Neural Systems</i> , 2021, 31, 2150007.	5.2	11
66	Botulinum Toxin (BT) injection improves voluntary motor control in selected patients with post-stroke spasticity. <i>Neural Regeneration Research</i> , 2012, 7, 1436-1439.	3.0	11
67	Perception of finger forces within the hand after index finger fatiguing exercise. <i>Experimental Brain Research</i> , 2007, 182, 169-177.	1.5	10
68	Analysis of Increasing and Decreasing Isometric Finger Force Generation and the Possible Role of the Corticospinal System in This Process. <i>Motor Control</i> , 2013, 17, 221-237.	0.6	10
69	Assessing Hand Muscle Structural Modifications in Chronic Stroke. <i>Frontiers in Neurology</i> , 2018, 9, 296.	2.4	10
70	Breathing-controlled electrical stimulation could modify the affective component of neuropathic pain after amputation: a case report. <i>Journal of Pain Research</i> , 2012, 5, 71.	2.0	9
71	Global Innervation Zone Identification With High-Density Surface Electromyography. <i>IEEE Transactions on Biomedical Engineering</i> , 2020, 67, 718-725.	4.2	9
72	Breathing-controlled Electrical Stimulation (BreESTim) for Management of Neuropathic Pain and Spasticity. <i>Journal of Visualized Experiments</i> , 2013, , e50077.	0.3	8

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73	Botulinum Toxin Injection for Spastic Scapular Dyskinesia After Stroke. <i>Medicine (United States)</i> , 2015, 94, e1300.	1.0	8
74	A novel nonpharmacological intervention &ndash; breathing-controlled electrical stimulation for neuropathic pain management after spinal cord injury &ndash; a preliminary study. <i>Journal of Pain Research</i> , 2016, Volume 9, 933-940.	2.0	8
75	Assessing the immediate impact of botulinum toxin injection on impedance of spastic muscle. <i>Medical Engineering and Physics</i> , 2017, 43, 97-102.	1.7	8
76	Assessing muscle compliance in stroke with the Myotonometer. <i>Clinical Biomechanics</i> , 2017, 50, 110-113.	1.2	8
77	Different Effects of Cold Stimulation on Reflex and Non-Reflex Components of Poststroke Spastic Hypertonia. <i>Frontiers in Neurology</i> , 2017, 8, 169.	2.4	8
78	Motor Unit Properties of the First Dorsal Interosseous in Chronic Stroke Subjects: Concentric Needle and Single Fiber EMG Analysis. <i>Frontiers in Physiology</i> , 2018, 9, 1587.	2.8	8
79	Habituation to Experimentally Induced Electrical Pain during Voluntary-Breathing Controlled Electrical Stimulation (BreESim). <i>PLoS ONE</i> , 2014, 9, e104729.	2.5	7
80	Inter-limb force coupling is resistant to distorted visual feedback in chronic hemiparetic stroke. <i>Journal of Rehabilitation Medicine</i> , 2014, 46, 206-211.	1.1	7
81	Possible Contributions of Ipsilateral Pathways From the Contralesional Motor Cortex to the Voluntary Contraction of the Spastic Elbow Flexors in Stroke Survivors. <i>American Journal of Physical Medicine and Rehabilitation</i> , 2019, 98, 558-565.	1.4	7
82	Time-course of pain threshold after continuous theta burst stimulation of primary somatosensory cortex in pain-free subjects. <i>Neuroscience Letters</i> , 2020, 722, 134760.	2.1	7
83	Centrally mediated late motor recovery after botulinum toxin injection: Case reports and a review of current evidence. <i>Journal of Rehabilitation Medicine</i> , 2017, 49, 609-619.	1.1	6
84	Motor unit innervation zone localization based on robust linear regression analysis. <i>Computers in Biology and Medicine</i> , 2019, 106, 65-70.	7.0	6
85	Heart rate variability in spinal cord injury: Asymptomatic orthostatic hypotension is a confounding variable. <i>Neuroscience Letters</i> , 2019, 703, 213-218.	2.1	6
86	Observations of Autonomic Variability Following Central Neuromodulation for Chronic Neuropathic Pain in Spinal Cord Injury. <i>Neuromodulation</i> , 2021, 24, 427-433.	0.8	6
87	Pain modulation effect of breathing-controlled electrical stimulation (BreESim) is not likely to be mediated by deep and fast voluntary breathing. <i>Scientific Reports</i> , 2015, 5, 14228.	3.3	5
88	The effects of conditioning startling acoustic stimulation (SAS) on the corticospinal motor system: a SAS&acirc;TMS study. <i>Experimental Brain Research</i> , 2019, 237, 1973-1980.	1.5	5
89	Real-world analysis of botulinum toxin (BoNT) injections in post-stroke spasticity: Higher doses of BoNT and longer intervals in the early-start group. <i>Journal of the Neurological Sciences</i> , 2021, 425, 117449.	0.6	5
90	A dilemma in stroke application: Standard or modified motor unit number index?. <i>Clinical Neurophysiology</i> , 2016, 127, 2756-2759.	1.5	4

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91	Characterization of Volume-Based Changes in Cortical Auditory Evoked Potentials and Prepulse Inhibition. <i>Scientific Reports</i> , 2017, 7, 11098.	3.3	4
92	Phenol Neurolysis for the Management of Shoulder Spasticity in Early Recovery From Traumatic Brain Injury: A Case Report. <i>PM and R</i> , 2019, 11, 90-93.	1.6	4
93	Model-Based Analysis of Muscle Strength and EMG-Force Relation with respect to Different Patterns of Motor Unit Loss. <i>Neural Plasticity</i> , 2021, 2021, 1-9.	2.2	4
94	Neurophysiological Factors Affecting Muscle Innervation Zone Estimation Using Surface EMG: A Simulation Study. <i>Biosensors</i> , 2021, 11, 356.	4.7	4
95	Muscle Fiber Diameter and Density Alterations after Stroke Examined by Single-Fiber EMG. <i>Neural Plasticity</i> , 2021, 2021, 1-7.	2.2	3
96	Early Use of Phenol Neurolysis Likely Reduces the Total Amount of Botulinum Toxin in Management of Post-Stroke Spasticity. <i>Frontiers in Rehabilitation Sciences</i> , 2021, 2, .	1.2	3
97	Evidence of treating spasticity before it develops: a systematic review of spasticity outcomes in acute spinal cord injury interventional trials. <i>Therapeutic Advances in Neurological Disorders</i> , 2022, 15, 175628642110706.	3.5	3
98	Current Concepts in Assessment and Management of Spasticity. , 2019, , 133-153.		2
99	Ultrasonographic Validation of Anatomical Landmarks for Localization of the Tendon of the Long Head of Biceps Brachii. <i>BioMed Research International</i> , 2017, 2017, 1-5.	1.9	1
100	Comprehensive Assessment of the Time Course of Biomechanical, Electrophysiological and Neuro-Motor Effects after Botulinum Toxin Injections in Elbow Flexors of Chronic Stroke Survivors with Spastic Hemiplegia: A Cross Sectional Observation Study. <i>Toxins</i> , 2022, 14, 104.	3.4	1
101	Electromyography (EMG) examination on motor unit alterations after stroke. , 2020, , 51-64.		0
102	Response to Letter to the Editor Regarding “Phenol Neurolysis for Management of Focal Spasticity in the Distal Upper Extremity” PM and R, 2020, 12, 943-944.	1.6	0
103	Spasticity. , 2021, , 447-468.e6.		0
104	New perspective on neuromodulation techniques: Breathing-controlled electrical stimulation as an innovative neuromodulation technique for management of neuropathic pain after spinal cord injury. <i>The Journal of the International Society of Physical and Rehabilitation Medicine</i> , 2020, 3, 106.	0.3	0
105	Exploring 5-minute heart rate variability in spinal cord injury during acute inpatient rehabilitation. <i>Journal of Spinal Cord Medicine</i> , 2022, , 1-8.	1.4	0