

# Dimitry G Sayenko

## List of Publications by Year in descending order

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Version: 2024-02-01

63  
papers

3,014  
citations

201674

27  
h-index

175258

52  
g-index

65  
all docs

65  
docs citations

65  
times ranked

2065  
citing authors

#	ARTICLE	IF	CITATIONS
1	Neuromodulation of lumbosacral spinal networks enables independent stepping after complete paraplegia. <i>Nature Medicine</i> , 2018, 24, 1677-1682.	30.7	416
2	Noninvasive Reactivation of Motor Descending Control after Paralysis. <i>Journal of Neurotrauma</i> , 2015, 32, 1968-1980.	3.4	236
3	Enabling Task-Specific Volitional Motor Functions via Spinal Cord Neuromodulation in a Human With Paraplegia. <i>Mayo Clinic Proceedings</i> , 2017, 92, 544-554.	3.0	189
4	Transcutaneous electrical spinal-cord stimulation in humans. <i>Annals of Physical and Rehabilitation Medicine</i> , 2015, 58, 225-231.	2.3	176
5	Self-Assisted Standing Enabled by Non-Invasive Spinal Stimulation after Spinal Cord Injury. <i>Journal of Neurotrauma</i> , 2019, 36, 1435-1450.	3.4	143
6	Neuromodulation of evoked muscle potentials induced by epidural spinal-cord stimulation in paralyzed individuals. <i>Journal of Neurophysiology</i> , 2014, 111, 1088-1099.	1.8	136
7	Weight Bearing Over-ground Stepping in an Exoskeleton with Non-invasive Spinal Cord Neuromodulation after Motor Complete Paraplegia. <i>Frontiers in Neuroscience</i> , 2017, 11, 333.	2.8	131
8	Dry Immersion as a Ground-Based Model of Microgravity Physiological Effects. <i>Frontiers in Physiology</i> , 2019, 10, 284.	2.8	107
9	Spinal segment-specific transcutaneous stimulation differentially shapes activation pattern among motor pools in humans. <i>Journal of Applied Physiology</i> , 2015, 118, 1364-1374.	2.5	99
10	Trunk Stability Enabled by Noninvasive Spinal Electrical Stimulation after Spinal Cord Injury. <i>Journal of Neurotrauma</i> , 2018, 35, 2540-2553.	3.4	96
11	Acute effects of whole body vibration during passive standing on soleus H-reflex in subjects with and without spinal cord injury. <i>Neuroscience Letters</i> , 2010, 482, 66-70.	2.1	76
12	Positive effect of balance training with visual feedback on standing balance abilities in people with incomplete spinal cord injury. <i>Spinal Cord</i> , 2010, 48, 886-893.	1.9	74
13	Reducing muscle fatigue during transcutaneous neuromuscular electrical stimulation by spatially and sequentially distributing electrical stimulation sources. <i>European Journal of Applied Physiology</i> , 2014, 114, 793-804.	2.5	72
14	An Autonomic Neuroprosthesis: Noninvasive Electrical Spinal Cord Stimulation Restores Autonomic Cardiovascular Function in Individuals with Spinal Cord Injury. <i>Journal of Neurotrauma</i> , 2018, 35, 446-451.	3.4	70
15	Role of support afferentation in control of the tonic muscle activity. <i>Acta Astronautica</i> , 2007, 60, 285-294.	3.2	67
16	Effects of paired transcutaneous electrical stimulation delivered at single and dual sites over lumbosacral spinal cord. <i>Neuroscience Letters</i> , 2015, 609, 229-234.	2.1	57
17	Electrophysiological Guidance of Epidural Electrode Array Implantation over the Human Lumbosacral Spinal Cord to Enable Motor Function after Chronic Paralysis. <i>Journal of Neurotrauma</i> , 2019, 36, 1451-1460.	3.4	56
18	Integration of sensory, spinal, and volitional descending inputs in regulation of human locomotion. <i>Journal of Neurophysiology</i> , 2016, 116, 98-105.	1.8	44

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19	Differential effects of plantar cutaneous afferent excitation on soleus stretch and H-reflex. <i>Muscle and Nerve</i> , 2009, 39, 761-769.	2.2	42
20	Effects of balance training with visual feedback during mechanically unperturbed standing on postural corrective responses. <i>Gait and Posture</i> , 2012, 35, 339-344.	1.4	40
21	What triggers the continuous muscle activity during upright standing?. <i>Gait and Posture</i> , 2013, 37, 72-77.	1.4	40
22	Effects of strength training, using a gravity-independent exercise system, performed during 110 days of simulated space station confinement. <i>European Journal of Applied Physiology</i> , 2003, 90, 44-49.	2.5	39
23	On the reflex mechanisms of cervical transcutaneous spinal cord stimulation in human subjects. <i>Journal of Neurophysiology</i> , 2019, 121, 1672-1679.	1.8	39
24	Ankle muscle co-contractions during quiet standing are associated with decreased postural steadiness in the elderly. <i>Gait and Posture</i> , 2017, 55, 31-36.	1.4	36
25	Feed-Forwardness of Spinal Networks in Posture and Locomotion. <i>Neuroscientist</i> , 2017, 23, 441-453.	3.5	33
26	Preferential activation of spinal sensorimotor networks via lateralized transcutaneous spinal stimulation in neurologically intact humans. <i>Journal of Neurophysiology</i> , 2019, 122, 2111-2118.	1.8	33
27	Locomotor step training with body weight support improves respiratory motor function in individuals with chronic spinal cord injury. <i>Respiratory Physiology and Neurobiology</i> , 2013, 189, 491-497.	1.6	31
28	The relationship between maximum tolerance and motor activation during transcutaneous spinal stimulation is unaffected by the carrier frequency or vibration. <i>Physiological Reports</i> , 2020, 8, e14397.	1.7	29
29	Complications of epidural spinal stimulation: lessons from the past and alternatives for the future. <i>Spinal Cord</i> , 2020, 58, 1049-1059.	1.9	28
30	Method to Reduce Muscle Fatigue During Transcutaneous Neuromuscular Electrical Stimulation in Major Knee and Ankle Muscle Groups. <i>Neurorehabilitation and Neural Repair</i> , 2015, 29, 722-733.	2.9	25
31	Impact of long-term epidural electrical stimulation enabled task-specific training on secondary conditions of chronic paraplegia in two humans. <i>Journal of Spinal Cord Medicine</i> , 2021, 44, 800-805.	1.4	24
32	Selectivity and excitability of upper-limb muscle activation during cervical transcutaneous spinal cord stimulation in humans. <i>Journal of Applied Physiology</i> , 2021, 131, 746-759.	2.5	23
33	Electrical Spinal Stimulation, and Imagining of Lower Limb Movements to Modulate Brain-Spinal Connectomes That Control Locomotor-Like Behavior. <i>Frontiers in Physiology</i> , 2018, 9, 1196.	2.8	21
34	Epidural Electrical Stimulation of the Lumbosacral Spinal Cord Improves Trunk Stability During Seated Reaching in Two Humans With Severe Thoracic Spinal Cord Injury. <i>Frontiers in Systems Neuroscience</i> , 2020, 14, 79.	2.5	20
35	Iron "ElectriRx" man: Overground stepping in an exoskeleton combined with noninvasive spinal cord stimulation after paralysis. , 2015, 2015, 1124-7.		16
36	Cardiovascular Response of Individuals With Spinal Cord Injury to Dynamic Functional Electrical Stimulation Under Orthostatic Stress. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2013, 21, 37-46.	4.9	15

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37	Respiratory motor training and neuromuscular plasticity in patients with chronic obstructive pulmonary disease: A pilot study. <i>Respiratory Physiology and Neurobiology</i> , 2016, 229, 59-64.	1.6	15
38	Effect of whole-body vibration on lower-limb EMG activity in subjects with and without spinal cord injury. <i>Journal of Spinal Cord Medicine</i> , 2014, 37, 525-536.	1.4	14
39	Alterations of Spinal Epidural Stimulation-Enabled Stepping by Descending Intentional Motor Commands and Proprioceptive Inputs in Humans With Spinal Cord Injury. <i>Frontiers in Systems Neuroscience</i> , 2020, 14, 590231.	2.5	14
40	Muscle activity, cross-sectional area, and density following passive standing and whole body vibration: A case series. <i>Journal of Spinal Cord Medicine</i> , 2014, 37, 575-581.	1.4	13
41	Respiratory motor function in seated and supine positions in individuals with chronic spinal cord injury. <i>Respiratory Physiology and Neurobiology</i> , 2014, 203, 9-14.	1.6	13
42	Voluntary Modulation of Evoked Responses Generated by Epidural and Transcutaneous Spinal Stimulation in Humans with Spinal Cord Injury. <i>Journal of Clinical Medicine</i> , 2021, 10, 4898.	2.4	13
43	Facilitation of the soleus stretch reflex induced by electrical excitation of plantar cutaneous afferents located around the heel. <i>Neuroscience Letters</i> , 2007, 415, 294-298.	2.1	12
44	Motor Control After Human SCI Through Activation of Muscle Synergies Under Spinal Cord Stimulation. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 1331-1340.	4.9	12
45	Transcutaneous spinal cord stimulation improves postural stability in individuals with multiple sclerosis. <i>Multiple Sclerosis and Related Disorders</i> , 2021, 52, 103009.	2.0	12
46	Vestibulospinal and Corticospinal Modulation of Lumbosacral Network Excitability in Human Subjects. <i>Frontiers in Physiology</i> , 2018, 9, 1746.	2.8	11
47	Video game-based neuromuscular electrical stimulation system for calf muscle training: A case study. <i>Medical Engineering and Physics</i> , 2011, 33, 249-255.	1.7	10
48	Minimal handgrip force is needed for transcutaneous electrical stimulation to improve hand functions of patients with severe spinal cord injury. <i>Scientific Reports</i> , 2022, 12, 7733.	3.3	10
49	Co-contraction of antagonist muscles during knee extension against gravity: Insights for functional electrical stimulation control design. , 2012, 2012, 1843-6.		9
50	Acute effects of Dry Immersion on kinematic characteristics of postural corrective responses. <i>Acta Astronautica</i> , 2016, 121, 110-115.	3.2	9
51	Low-Intensity and Short-Duration Continuous Cervical Transcutaneous Spinal Cord Stimulation Intervention Does Not Prime the Corticospinal and Spinal Reflex Pathways in Able-Bodied Subjects. <i>Journal of Clinical Medicine</i> , 2021, 10, 3633.	2.4	9
52	Characterization of Spinal Sensorimotor Network Using Transcutaneous Spinal Stimulation during Voluntary Movement Preparation and Performance. <i>Journal of Clinical Medicine</i> , 2021, 10, 5958.	2.4	8
53	Action Possibility Judgments of People with Varying Motor Abilities Due to Spinal Cord Injury. <i>PLoS ONE</i> , 2014, 9, e110250.	2.5	7
54	Spatially distributed sequential stimulation reduces muscle fatigue during neuromuscular electrical stimulation. , 2013, 2013, 3614-7.		6

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55	Selective Antagonism of A1 Adenosinergic Receptors Strengthens the Neuromodulation of the Sensorimotor Network During Epidural Spinal Stimulation. <i>Frontiers in Systems Neuroscience</i> , 2020, 14, 44.	2.5	6
56	Effect of spinal cord injury and its lesion level on stretch reflex modulation by cold stimulation in humans. <i>Clinical Neurophysiology</i> , 2011, 122, 163-170.	1.5	4
57	Transcutaneous spinal stimulation alters cortical and subcortical activation patterns during mimicked-standing: A proof-of-concept fMRI study. <i>NeuroImage Reports</i> , 2022, 2, 100090.	1.0	4
58	Effects of transcutaneous spinal stimulation on spatiotemporal cortical activation patterns: a proof-of-concept EEG study. <i>Journal of Neural Engineering</i> , 2022, 19, 046001.	3.5	4
59	Quantitative Assessment of Clinician Assistance During Dynamic Rehabilitation Using Force Sensitive Resistors. <i>Frontiers in Rehabilitation Sciences</i> , 2021, 2, .	1.2	3
60	Characterization of interlimb interaction via transcutaneous spinal stimulation of cervical and lumbar spinal enlargements. <i>Journal of Neurophysiology</i> , 2022, 127, 1075-1085.	1.8	2
61	Neuromodulation and restoration of motor responses after severe spinal cord injury. , 2022, , 51-63.		2
62	On Muscle Activation for Improving Robotic Rehabilitation after Spinal Cord Injury. , 2018, , .		1
63	Potential impact of epidural stimulation on neurogenic bladder function and the value of urodynamic studies throughout usage. <i>Journal of Spinal Cord Medicine</i> , 2021, 44, 515-516.	1.4	0