Simon F Giszter

List of Publications by Year
in descending order

44 papers	2,116 citations	236925 25 h-index	265206 42 g-index
44 all docs	44 docs citations	44 times ranked	1541 citing authors

#	Article	IF	Citations
1	Stimulating the cervical spinal cord â€“ combining clinical, classical and basic motor perspectives on epidural stimulation. Journal of Physiology, 2021, 599, 3431-3432.	2.9	0
2	Highly Flexible Precisely Braided Multielectrode Probes and Combinatorics for Future Neuroprostheses. Frontiers in Neuroscience, 2019, 13, 613.	2.8	5
3	Motor primitives are determined in early development and are then robustly conserved into adulthood. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12025-12034.	7.1	47
4	Modularity in the intact and spinal cat: methods, issues and questions for the future. Journal of Physiology, 2019, 597, 13-13.	2.9	1
5	Enhancing neural activity to drive respiratory plasticity following cervical spinal cord injury. Experimental Neurology, 2017, 287, 276-287.	4.1	27
6	Trunk Postural Muscle Timing Is Not Compromised In Low Back Pain Patients Clinically Diagnosed With Movement Coordination Impairments. Motor Control, 2017, 21, 133-157.	0.6	14
7	Teaching Adult Rats Spinalized as Neonates to Walk Using Trunk Robotic Rehabilitation: Elements of Success, Failure, and Dependence. Journal of Neuroscience, 2016, 36, 8341-8355.	3.6	5
8	Spinal primitives and intra-spinal micro-stimulation (ISMS) based prostheses: a neurobiological perspective on the â€œknown unknownsâ€•in ISMS and future prospects. Frontiers in Neuroscience, 2015, 9, 72.	2.8	12
9	Adaptation to elastic loads and BMI robot controls during rat locomotion examined with point-process GLMs. Frontiers in Systems Neuroscience, 2015, 9, 62.	2.5	5
10	Motor primitivesâ€"new data and future questions. Current Opinion in Neurobiology, 2015, 33, 156-165.	4.2	167
11	Trunk Robot Rehabilitation Training with Active Stepping Reorganizes and Enriches Trunk Motor Cortex Representations in Spinal Transected Rats. Journal of Neuroscience, 2015, 35, 7174-7189.	3.6	25
12	Plasticity and alterations of trunk motor cortex following spinal cord injury and non-stepping robot and treadmill training. Experimental Neurology, 2014, 256, 57-69.	4.1	29
13	A pelvic implant orthosis in rodents, for spinal cord injury rehabilitation, and for brain machine interface research: Construction, surgical implantation and validation. Journal of Neuroscience Methods, 2014, 222, 199-206.	2.5	7
14	Braided multi-electrode probes: mechanical compliance characteristics and recordings from spinal cords. Journal of Neural Engineering, 2013, 10, 045001.	3.5	34
15	Motor primitives and synergies in the spinal cord and after injuryâ€"the current state of play. Annals of the New York Academy of Sciences, 2013, 1279, 114-126.	3.8	50
16	Distinguishing synchronous and time-varying synergies using point process interval statistics: motor primitives in frog and rat. Frontiers in Computational Neuroscience, 2013, 7, 52.	2.1	16
17	Adaptation to a Cortex-Controlled Robot Attached at the Pelvis and Engaged during Locomotion in Rats. Journal of Neuroscience, 2011, 31, 3110-3128.	3.6	37
18	Biomimetic control for redundant and high degree of freedom limb systems: neurobiological modularity. Smart Structures and Systems, 2011, 7, 169-184.	1.9	1

#	Article	IF	Citations
19	A Simple Experimentally Based Model Using Proprioceptive Regulation of Motor Primitives Captures Adjusted Trajectory Formation in Spinal Frogs. Journal of Neurophysiology, 2010, 103, 573-590.	1.8	62
20	Spinal cord modularity: evolution, development, and optimization and the possible relevance to low back pain in man. Experimental Brain Research, 2010, 200, 283-306.	1.5	32
21	A Neural Basis for Motor Primitives in the Spinal Cord. Journal of Neuroscience, 2010, 30, 1322-1336.	3.6	236
22	How spinalized rats can walk: biomechanics, cortex, and hindlimb muscle scalingâ€"implications for rehabilitation. Annals of the New York Academy of Sciences, 2010, 1198, 279-293.	3.8	26
23	Trunk control during standing reach: A dynamical system analysis of movement strategies in patients with mechanical low back pain. Gait and Posture, 2009, 29, 370-376.	1.4	84
24	Multiple Types of Movement-Related Information Encoded in Hindlimb/Trunk Cortex in Rats and Potentially Available for Brainâ€"Machine Interface Controls. IEEE Transactions on Biomedical Engineering, 2009, 56, 2712-2716.	4.2	36
25	Spinal Cord Injury: Present and Future Therapeutic Devices and Prostheses. Neurotherapeutics, 2008, 5, 147-162.	4.4	39
26	Coordination strategies for limb forces during weight-bearing locomotion in normal rats, and in rats spinalized as neonates. Experimental Brain Research, 2008, 190, 53-69.	1.5	25
27	Trunk Sensorimotor Cortex Is Essential for Autonomous Weight-Supported Locomotion in Adult Rats Spinalized as P1/P2 Neonates. Journal of Neurophysiology, 2008, 100, 839-851.	1.8	26
28	Individual Premotor Drive Pulses, Not Time-Varying Synergies, Are the Units of Adjustment for Limb Trajectories Constructed in Spinal Cord. Journal of Neuroscience, 2008, 28, 2409-2425.	3.6	85
29	Primitives, premotor drives, and pattern generation: a combined computational and neuroethological perspective. Progress in Brain Research, 2007, 165, 323-346.	1.4	79
30	Motor Strategies Used by Rats Spinalized at Birth to Maintain Stance in Response to Imposed Perturbations. Journal of Neurophysiology, 2007, 97, 2663-2675.	1.8	27
31	Robot Application of Elastic Fields to the Pelvis of the Spinal Transected Rat: a Tool for Detailed Assessment and Rehabilitation. , 2006, 2006, 3684-7.		16
32	Robot Application of Elastic Fields to the Pelvis of the Spinal Transected Rat: a Tool for Detailed Assessment and Rehabilitation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	1
33	Towards a Definition of Recovery of Function. Journal of Neurotrauma, 2004, 21, 405-413.	3.4	13
34	Modular Premotor Drives and Unit Bursts as Primitives for Frog Motor Behaviors. Journal of Neuroscience, 2004, 24, 5269-5282.	3.6	175
35	Neurobiological and neurorobotic approaches to control architectures for a humanoid motor system. Robotics and Autonomous Systems, 2001, 37, 219-235.	5.1	21
36	Modeling of dynamic controls in the frog wiping reflex: Force-field level controls. Neurocomputing, 2001, 38-40, 1239-1247.	5.9	11

#	Article	IF	Citations
37	Conserved temporal dynamics and vector superposition of primitives in frog wiping reflexes during spontaneous extensor deletions. Neurocomputing, 2000, 32-33, 775-783.	5.9	29
38	Afferent Roles in Hindlimb Wipe-Reflex Trajectories: Free-Limb Kinematics and Motor Patterns. Journal of Neurophysiology, 2000, 83, 1480-1501.	1.8	55
39	Rapid Correction of Aimed Movements by Summation of Force-Field Primitives. Journal of Neuroscience, 2000, 20, 409-426.	3.6	141
40	Direct Agonists for Serotonin Receptors Enhance Locomotor Function in Rats that Received Neural Transplants after Neonatal Spinal Transection. Journal of Neuroscience, 1999, 19, 6213-6224.	3.6	86
41	Pattern Generators and Cortical Maps in Locomotion of Spinal Injured Ratsa. Annals of the New York Academy of Sciences, 1998, 860, 554-555.	3.8	7
42	Fetal Transplants Rescue Axial Muscle Representations in M1 Cortex of Neonatally Transected Rats That Develop Weight Support. Journal of Neurophysiology, 1998, 80, 3021-3030.	1.8	42
43	Fetal Transplants Alter the Development of Function after Spinal Cord Transection in Newborn Rats. Journal of Neuroscience, 1997, 17, 4856-4872.	3.6	100
44	Vector field approximation: a computational paradigm for motor control and learning. Biological Cybernetics, 1992, 67, 491-500.	1.3	180