Vittorio Sanguineti

List of Publications by Year
in descending order

104	3,087	186265	168389
papers	citations	28 h-index	53 g-index

110	110	110	2596
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Direct measurement of ankle stiffness during quiet standing: implications for control modelling and clinical application. Gait and Posture, 2005, 21, 410-424.	1.4	286
2	Are Complex Control Signals Required for Human Arm Movement?. Journal of Neurophysiology, 1998, 79, 1409-1424.	1.8	252
3	Ankle Muscle Stiffness Alone Cannot Stabilize Balance During Quiet Standing. Journal of Neurophysiology, 2002, 88, 2157-2162.	1.8	214
4	Body sway during quiet standing: Is it the residual chattering of an intermittent stabilization process?. Human Movement Science, 2005, 24, 588-615.	1.4	182
5	Braccio di Ferro: A new haptic workstation for neuromotor rehabilitation. Technology and Health Care, 2006, 14, 123-142.	1.2	152
6	Robotic Assessment of Upper Limb Motor Function After Stroke. American Journal of Physical Medicine and Rehabilitation, 2012, 91, S255-S269.	1.4	115
7	Connecting Brains to Robots: An Artificial Body for Studying the Computational Properties of Neural Tissues. Artificial Life, 2000, 6, 307-324.	1.3	108
8	Adaptive Model-Based Myoelectric Control for a Soft Wearable Arm Exosuit: A New Generation of Wearable Robot Control. IEEE Robotics and Automation Magazine, 2020, 27, 43-53.	2.0	86
9	The Sway-Density Curve and the Underlying Postural Stabilization Process. Motor Control, 2004, 8, 292-311.	0.6	84
10	Self-adaptive robot training of stroke survivors for continuous tracking movements. Journal of NeuroEngineering and Rehabilitation, 2010, 7, 13.	4.6	82
11	Slaves no longer: review on role assignment for humanâ€“robot joint motor action. Adaptive Behavior, 2014, 22, 70-82.	1.9	80
12	A dynamic biomechanical model for neural control of speech production. Journal of the Acoustical Society of America, 1998, 103, 1615-1627.	1.1	77
13	Minimally assistive robot training for proprioception enhancement. Experimental Brain Research, 2009, 194, 219-231.	1.5	73
14	Abnormal sensorimotor control, but intact force field adaptation, in multiple sclerosis subjects with no clinical disability. Multiple Sclerosis Journal, 2008, 14, 330-342.	3.0	71
15	Adaptive robot training for the treatment of incoordination in Multiple Sclerosis. Journal of NeuroEngineering and Rehabilitation, 2010, 7, 37.	4.6	68
16	A control model of human tongue movements in speech. Biological Cybernetics, 1997, 77, 11-22.	1.3	64
17	Self-Organizing Body Schema for Motor Planning. Journal of Motor Behavior, 1995, 27, 52-66.	0.9	63
18	Learning, Retention, and Slacking: A Model of the Dynamics of Recovery in Robot Therapy. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2012, 20, 286-296.	4.9	61

#	Article	IF	Citations
19	Natural interfaces and virtual environments for the acquisition of street crossing and path following skills in adults with Autism Spectrum Disorders: a feasibility study. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 17.	4.6	60
20	A proof of concept study for the integration of robot therapy with physiotherapy in the treatment of stroke patients. Clinical Rehabilitation, 2009, 23, 217-228.	2.2	57
21	New perspectives on the dialogue between brains and machines. Frontiers in Neuroscience, 2010, 4, 44.	2.8	51
22	Technological Approaches for Neurorehabilitation: From Robotic Devices to Brain Stimulation and Beyond. Frontiers in Neurology, 2018, 9, 212.	2.4	49
23	Haptic communication between humans is tuned by the hard or soft mechanics of interaction. PLoS Computational Biology, 2018, 14, e1005971.	3.2	49
24	How the brain can discover the existence of external egocentric space. Neurocomputing, 1996, 12, 289-310.	5.9	40
25	A computational theory of targeting movements based on force fields and topology representing networks. Neurocomputing, 1997, 15, 411-434.	5.9	40
26	Braccio di Ferro: a new haptic workstation for neuromotor rehabilitation. Technology and Health Care, 2006, 14, 123-42.	1.2	39
27	Cerebellar ataxia: Quantitative assessment and cybernetic interpretation. Human Movement Science, 2003, 22, 189-205.	1.4	35
28	Subtle upper limb impairment in asymptomatic multiple sclerosis subjects. Multiple Sclerosis Journal, 2007, 13, 428-432.	3.0	33
29	A Haptic Robot Reveals the Adaptation Capability of Individuals with Multiple Sclerosis. International Journal of Robotics Research, 2007, 26, 1225-1233.	8.5	29
30	Adaptive training with full-body movements to reduce bradykinesia in persons with Parkinsonâ€™s disease: a pilot study. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 16.	4.6	29
31	Encoding of Time-varying Stimuli in Populations of Cultured Neurons. Biological Cybernetics, 2006, 94, 335-349.	1.3	25
32	Adaptive regulation of assistance ‘as needed’ in robot-assisted motor skill learning and neuro-rehabilitation. , 2011, 2011, 5975375.		25
33	Computational analysisin vitro: dynamics and plasticity of a neuro-robotic system. Journal of Neural Engineering, 2005, 2, S250-S265.	3.5	23
34	Bilateral robot therapy based on haptics and reinforcement learning: Feasibility study of a new concept for treatment of patients after stroke. Journal of Rehabilitation Medicine, 2009, 41, 961-965.	1.1	23
35	Desirable features of a “humanoid” robot-therapist. , 2009, 2009, 2418-21.		19
36	Robot therapy for stroke survivors: proprioceptive training and regulation of assistance. Studies in Health Technology and Informatics, 2009, 145, 126-42.	0.3	18

#	Article	IF	Citations
37	Adaptation to constant-magnitude assistive forces: kinematic and neural correlates. Experimental Brain Research, 2011, 209, 425-436.	1.5	17
38	Neuromotor recovery from stroke: computational models at central, functional, and muscle synergy level. Frontiers in Computational Neuroscience, 2013, 7, 97.	2.1	17
39	Incomplete information about the partner affects the development of collaborative strategies in joint action. PLoS Computational Biology, 2019, 15, e1006385.	3.2	17
40	Coordinate-free sensorimotor processing: computing with population codes. Neural Networks, 1998, 11, 1417-1428.	5.9	15
41	Robot-assisted intermanual transfer of handwriting skills. Human Movement Science, 2012, 31, 1175-1190.	1.4	13
42	Versatile and non-versatile occupational back-support exoskeletons: A comparison in laboratory and field studies. Wearable Technologies, 2021, 2, .	3.1	13
43	Activity, tolerability and efficacy of levetiracetam on cerebellar symptoms in multiple sclerosis patients: a pilot kinematic study. European Journal of Neurology, 2008, 15, 619-626.	3.3	12
44	Preflexes and internal models in biomimetic robot systems. Cognitive Processing, 2005, 6, 25-36.	1.4	11
45	Basal ganglia and kinematics modulation: Insights from Parkinsonâ€™s and Huntingtonâ€™s diseases. Parkinsonism and Related Disorders, 2011, 17, 642-644.	2.2	11
46	Haptic vs sensorimotor training in the treatment of upper limb dysfunction in multiple sclerosis: A multi-center, randomised controlled trial. Journal of the Neurological Sciences, 2020, 412, 116743.	0.6	11
47	Measuring functional recovery of hemiparetic subjects during gentle robot therapy. Measurement: Journal of the International Measurement Confederation, 2009, 42, 1176-1187.	5.0	10
48	Inter-limb interference during bimanual adaptation to dynamic environments. Experimental Brain Research, 2010, 202, 693-707.	1.5	10
49	Neurocomputing aspects in modelling cursive handwriting. Acta Psychologica, 1993, 82, 213-235.	1.5	9
50	Effect of interface type in the VR-based acquisition of pedestrian skills in persons with ASD. , 2015, 2015, 5728-31.		9
51	Intention-detection strategies for upper limb exosuits: model-based myoelectric vs dynamic-based control. , 2020, , .		9
52	Robot therapy of the upper limb in stroke patients: preliminary experiences for the principle-based use of this technology. Functional Neurology, 2009, 24, 195-202.	1.3	8
53	SOC: A Self-Organizing Classifier. , 1992, , 1223-1226.		7
54	Adaptive robot training in the rehabilitation of incoordination in Multiple Sclerosis: a pilot study. , 2007, , .		7

#	Article	IF	Citations
55	Cortical Maps of Sensorimotor Spaces. Advances in Psychology, 1997, , 1-36.	0.1	6
56	Computational maps and target fields for reaching movements. Advances in Psychology, 1997, , 507-546.	0.1	6
57	Bio-mimetic trajectory generation using a neural time-base generator. Journal of Field Robotics, 2005, 22, 625-637.	0.7	6
58	Robot therapy: the importance of haptic interaction. , 2007, , .		6
59	A tailored exercise of manipulation of virtual tools to treat upper limb impairment in Multiple Sclerosis. , 2011, 2011, 5975509.		6
60	Assistive controllers and modalities for robot-aided neurorehabilitation. , 2018, , 63-74.		6
61	Modelling Collaborative Strategies in Physical Human-Human Interaction. Biosystems and Biorobotics, 2017, , 253-258.	0.3	6
62	Game theory and partner representation in joint action: toward a computational theory of joint agency. Phenomenology and the Cognitive Sciences, 0, , 1.	1.8	6
63	From Cortical Maps to the Control of Muscles. Advances in Psychology, 1997, , 547-591.	0.1	5
64	Real-time artifact filtering in continuous VEPs/fMRI recording. Journal of Neuroscience Methods, 2009, 184, 213-223.	2.5	5
65	Neural correlates of motor learning and performance in a virtual ball putting task. , 2011, 2011, 5975487.		5
66	Effect of Position- and Velocity-Dependent Forces on Reaching Movements at Different Speeds. Frontiers in Human Neuroscience, 2016, 10, 609.	2.0	5
67	Size-Change Detection Thresholds of a Hand-Held Bar at Rest and during Movement. Lecture Notes in Computer Science, 2010, , 327-332.	1.3	4
68	Artificial Force-Field Based Methods in Robotics. Advances in Psychology, 1997, , 169-190.	0.1	3
69	Motor imagery in robot-assistive rehabilitation: A study with healthy subjects. , 2009, , .		3
70	Modeling the dynamics of the recovery process in robot therapy. , 2009, , .		3
71	Robot therapy for severely impaired stroke survivors: Toward a concurrent regulation of task difficulty and degree of assistance. , 2012, , .		3
72	Robot-assisted acquisition of a motor skill: Evolution of performance and effort. , 2012, , .		3

#	Article	IF	Citations
73	Computational models of the recovery process in robot-assisted training. , 2018, , 117-135.		3
74	Kinematic invariances and body schema. Behavioral and Brain Sciences, 1995, 18, 769-770.	0.7	2
75	Computational Implications of Modeling Grasping as a Form of (Multiple-Parallel) Reaching. Motor Control, 1999, 3, 276-279.	0.6	2
76	Cross-correlation based methods for estimating the functional connectivity in cortical networks. BMC Neuroscience, 2007, 8, .	1.9	2
77	14-3-3. , 2008, , 1-1.		2
78	Toward ‘optimal’ schemes of robot assistance to facilitate motor skill learning. , 2011, 2011, 2355-8.		2
79	Modulation of motor performance by a monetary incentive: A pilot study. , 2015, 2015, 238-41.		2
80	Toward EMG-controlled force field generation for training and rehabilitation: From movement data to muscle geometry. , 2017, 2017, 90-95.		2
81	Artificial Partners to Understand Joint Action: Representing Others to Develop Effective Coordination. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 1473-1482.	4.9	2
82	Transferring complex motor skills from an expert to a novice through robotics platforms: A new methodology to approach neuromotor rehabilitation. Gait and Posture, 2011, 33, S51-S52.	1.4	1
83	Concurrent adaptation to force fields and visual rotations. , 2012, , .		1
84	Estimation of Muscle Torques from EMG and Kinematics During Planar Arm Movements. , 2018, , .		1
85	Beta oscillations during adaptation to inertial and velocity dependent perturbations. , 2020, , .		1
86	Representation of Space and Time in Motor Control. Studies in Cognitive Systems, 2000, , 472-509.	0.1	1
87	Tongue articulators as muscle synergies. Journal of the Acoustical Society of America, 1996, 100, 2659-2659.	1.1	1
88	Topologic organization of context fields for sensorimotor coordination. Behavioral and Brain Sciences, 1997, 20, 693-693.	0.7	0
89	Learning tidal waves versus learning sensorimotor mappings. Behavioral and Brain Sciences, 1997, 20, 260-261.	0.7	0
90	Computational models to understand sensorimotor control and adaptation performance. , 2006, , .		0

#	Article	IF	Citations
91	Reward-based learning of a redundant task. , 2013, 2013, 6650386.		0
92	Computational rehabilitation of neglect: Using state-space models to understand the recovery mechanisms. , 2017, 2017, 187-192.		0
93	Computational Models of Stroke Recovery. , 2017, , 505-525.		0
94	Self-operated stimuli improve subsequent visual motion integration. Journal of Vision, 2021, 21, 13.	0.3	0
95	Cortical Maps as Topology-Representing Neural Networks Applied to Motor Control:. Mathematical Modelling: Theory and Applications, 2001, , 189-218.	0.2	0
96	Modelling Motor Control Paradigms. Chapman & Hall/CRC Mathematical and Computational Biology Series, 2003, , .	0.1	0
97	Consciousness as the Emergent Property of the Interaction Between Brain, Body, and Environment. Journal of Psychophysiology, 2010, 24, 125-130.	0.7	0
98	Analogic and Symbolic Aspects in Distributed Motor Control. , 1991, , 233-252.		0
99	Self-Organizing Neural Network for Diagnosis. , 1993, , 806-809.		0
100	Field Computation and Sensory Fusion. , 1997, , 123-137.		0
101	Computational Maps for Articulatory Speech Synthesis. Perspectives in Neural Computing, 1998, , 213-218.	0.1	0
102	Advances in modeling cortical maps. , 1999, , 267-278.		0
103	A User Model for Adaptation of Task Parameters in Robot-Assisted Exercise. Biosystems and Biorobotics, 2019, , 200-204.	0.3	0
104	Computer-Neural Hybrids. , 2009, , 837-841.		0