Egidio Falotico

List of Publications by Year
in descending order

70	1,754	567281 15	315739 38
papers	citations	h-index	g-index

73	73	73	1378
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Closed-Loop Dynamic Control of a Soft Manipulator Using Deep Reinforcement Learning. IEEE Robotics and Automation Letters, 2022, 7, 4741-4748.	5.1	24
2	Reaching and Grasping Movements in Parkinsonâ€™s Disease: A Review. Journal of Parkinson's Disease, 2022, 12, 1083-1113.	2.8	10
3	Controlling Soft Robotic Arms Using Continual Learning. IEEE Robotics and Automation Letters, 2022, 7, 5469-5476.	5.1	8
4	Brain-inspired meta-reinforcement learning cognitive control in conflictual inhibition decision-making task for artificial agents. Neural Networks, 2022, 154, 283-302.	5.9	4
5	Emotion as an emergent phenomenon of the neurocomputational energy regulation mechanism of a cognitive agent in a decision-making task. Adaptive Behavior, 2021, 29, 55-71.	1.9	11
6	Recurrence quantification analysis of EEG signals for tactile roughness discrimination. International Journal of Machine Learning and Cybernetics, 2021, 12, 1115-1136.	3.6	9
7	Robust Fractional-Order Control Using a Decoupled Pitch and Roll Actuation Strategy for the I-Support Soft Robot. Mathematics, 2021, 9, 702.	2.2	2
8	Sharpness recognition based on synergy between bio-inspired nociceptors and tactile mechanoreceptors. Scientific Reports, 2021, 11, 2109.	3.3	9
9	Cerebellar adaptive mechanisms explain the optimal control of saccadic eye movements. Bioinspiration and Biomimetics, 2021, 16, 016004.	2.9	5
10	Experiments on Oscillation Control of a Continuum Soft Robotic Manipulator. Lecture Notes in Mechanical Engineering, 2021, , 557-571.	0.4	0
11	Open-loop Model-free Dynamic Control of a Soft Manipulator for Tracking Tasks. , 2021, , .		3
12	A Cerebellar Internal Models Control Architecture for Online Sensorimotor Adaptation of a Humanoid Robot Acting in a Dynamic Environment. IEEE Robotics and Automation Letters, 2020, 5, 80-87.	5.1	14
13	Spike train analysis in a digital neuromorphic system of cutaneous mechanoreceptor. Neurocomputing, 2020, 379, 343-355.	5.9	4
14	A Cerebellum-Inspired Learning Approach for Adaptive and Anticipatory Control. International Journal of Neural Systems, 2020, 30, 1950028.	5.2	13
15	Experimental and Computational Study on Motor Control and Recovery After Stroke: Toward a Constructive Loop Between Experimental and Virtual Embodied Neuroscience. Frontiers in Systems Neuroscience, 2020, 14, 31.	2.5	23
16	Running Large-Scale Simulations on the Neurorobotics Platform to Understand Vision â€“ The Case of Visual Crowding. Frontiers in Neurorobotics, 2019, 13, 33.	2.8	11
17	Cerebellum-inspired approach for adaptive kinematic control of soft robots. , 2019, , .		11
18	A Biomimetic Control Method Increases the Adaptability of a Humanoid Robot Acting in a Dynamic Environment. Frontiers in Neurorobotics, 2019, 13, 70.	2.8	18

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19	Structured motor exploration for adaptive learning-based tracking in soft robotic manipulators. , 2019, , .		2
20	Combining Evolutionary and Adaptive Control Strategies for Quadruped Robotic Locomotion. Frontiers in Neurorobotics, 2019, 13, 71.	2.8	9
21	Intelligent Position, Pressure and Depth Sensing in a Soft Optical Waveguide Skin. , 2019, , .		3
22	Emergence of behavior through morphology: a case study on an octopus inspired manipulator. Bioinspiration and Biomimetics, 2019, 14, 034001.	2.9	8
23	Towards in-silico robotic post-stroke rehabilitation for mice. , 2019, , .		1
24	Closed loop control of a braided-structure continuum manipulator with hybrid actuation based on learning models. , 2019, , .		4
25	Model-Based Reinforcement Learning for Closed-Loop Dynamic Control of Soft Robotic Manipulators. IEEE Transactions on Robotics, 2019, 35, 124-134.	10.3	228
26	A Digital Hardware System for Spiking Network of Tactile Afferents. Frontiers in Neuroscience, 2019, 13, 1330.	2.8	6
27	Stable Open Loop Control of Soft Robotic Manipulators. IEEE Robotics and Automation Letters, 2018, 3, 1292-1298.	5.1	60
28	Control Strategies for Soft Robotic Manipulators: A Survey. Soft Robotics, 2018, 5, 149-163.	8.0	412
29	Multiobjective Optimization for Stiffness and Position Control in a Soft Robot Arm Module. IEEE Robotics and Automation Letters, 2018, 3, 108-115.	5.1	82
30	Multimodal Sensory Representation for Object Classification via Neocortically-inspired Algorithm. , 2018, , .		0
31	Induced Vibrations of Soft Robotic Manipulators for Controller Design and Stiffness Estimation. , 2018, , .		4
32	A Digital Hardware Realization for Spiking Model of Cutaneous Mechanoreceptor. Frontiers in Neuroscience, 2018, 12, 322.	2.8	25
33	Modeling the Encoding of Saccade Kinematic Metrics in the Purkinje Cell Layer of the Cerebellar Vermis. Frontiers in Computational Neuroscience, 2018, 12, 108.	2.1	6
34	Head stabilization in a humanoid robot: models and implementations. Autonomous Robots, 2017, 41, 349-365.	4.8	14
35	Towards the development of a soft manipulator as an assistive robot for personal care of elderly people. International Journal of Advanced Robotic Systems, 2017, 14, 172988141668713.	2.1	72
36	Learning dynamic models for open loop predictive control of soft robotic manipulators. Bioinspiration and Biomimetics, 2017, 12, 066003.	2.9	96

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37	A comprehensive gaze stabilization controller based on cerebellar internal models. Bioinspiration and Biomimetics, 2017, 12, 065001.	2.9	13
38	A Framework for Coupled Simulations of Robots and Spiking Neuronal Networks. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 85, 71-91.	3.4	16
39	Cubic spline regression based enhancement of side-scan sonar imagery. , 2017, , .		2
40	Sense of movement: Simplifying principles for humanoid robots. Science Robotics, 2017, 2, .	17.6	1
41	Connecting Artificial Brains to Robots in a Comprehensive Simulation Framework: The Neurorobotics Platform. Frontiers in Neurorobotics, 2017, 11, 2.	2.8	102
42	Proprioceptive Feedback through a Neuromorphic Muscle Spindle Model. Frontiers in Neuroscience, 2017, 11, 341.	2.8	10
43	Learning Closed Loop Kinematic Controllers for Continuum Manipulators in Unstructured Environments. Soft Robotics, 2017, 4, 285-296.	8.0	84
44	Exploiting Morphology of a Soft Manipulator for Assistive Tasks. Lecture Notes in Computer Science, 2017, , 291-301.	1.3	6
45	A Closed Loop Shape Control for Bio-inspired Soft Arms. Lecture Notes in Computer Science, 2017, , 567-573.	1.3	3
46	Adaptive gaze stabilization through cerebellar internal models in a humanoid robot. , 2016, , .		9
47	Learning Global Inverse Kinematics Solutions for a Continuum Robot. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2016, , 47-54.	0.6	28
48	Point-to-point motion controller for soft robotic manipulators. , 2016, , .		4
49	Sequential decision making based on emergent emotion for a humanoid robot. , 2016, , .		10
50	Eye-Head Stabilization Mechanism for a Humanoid Robot Tested on Human Inertial Data. Lecture Notes in Computer Science, 2016, , 341-352.	1.3	4
51	A Multiagent Reinforcement Learning approach for inverse kinematics of high dimensional manipulators with precision positioning. , 2016, , .		25
52	Hopping on Uneven Terrains With an Underwater One-Legged Robot. IEEE Robotics and Automation Letters, 2016, 1, 461-468.	5.1	33
53	Correcting for changes: expected perception-based control for reaching a moving target. IEEE Robotics and Automation Magazine, 2016, 23, 63-70.	2.0	3
54	Visual Target Sequence Prediction via Hierarchical Temporal Memory Implemented on the iCub Robot. Lecture Notes in Computer Science, 2016, , 119-130.	1.3	2

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55	Retina Color-Opponency Based Pursuit Implemented Through Spiking Neural Networks in the Neurorobotics Platform. Lecture Notes in Computer Science, 2016, , 16-27.	1.3	6
56	Learning Global Inverse Statics Solution for a Redundant Soft Robot. , 2016, , .		28
57	A bio-inspired model of visual pursuit combining feedback and predictive control for a humanoid robot. , 2015, , .		1
58	A visual tracking model implemented on the iCub robot as a use case for a novel neurorobotic toolkit integrating brain and physics simulation. , 2015, , .		9
59	Integrating Feedback and Predictive Control in a Bio-Inspired Model of Visual Pursuit Implemented on a Humanoid Robot. Lecture Notes in Computer Science, 2015, , 256-267.	1.3	17
60	Adaptive visual pursuit involving eye-head coordination and prediction of the target motion. , 2014, , .		15
61	Biped walking stabilization on soft ground based on gait analysis. , 2012, , .		12
62	A robotic implementation of a bio-inspired head motion stabilization model on a humanoid platform. , 2012, , .		7
63	Head stabilization based on a feedback error learning in a humanoid robot. , 2012, , .		9
64	Realization of biped walking on soft ground with stabilization control based on gait analysis. , 2012, , .		23
65	Using trunk compensation to model head stabilization during locomotion. , 2011, , .		8
66	A model of the smooth pursuit eye movement with prediction and learning. Applied Bionics and Biomechanics, 2010, 7, 109-118.	1.1	3
67	A Model of the Smooth Pursuit Eye Movement with Prediction and Learning. Applied Bionics and Biomechanics, 2010, 7, 109-118.	1.1	13
68	A comparison between two bio-inspired adaptive models of Vestibulo-Ocular Reflex (VOR) implemented on the iCub robot. , 2010, , .		16
69	Implementation of a bio-inspired visual tracking model on the iCub robot. , 2010, , .		11
70	Predictive tracking across occlusions in the iCub robot. , 2009, , .		10