

Estela Bicho

List of Publications by Year in descending order

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88
papers

1,473
citations

430442

18
h-index

395343

33
g-index

95
all docs

95
docs citations

95
times ranked

1289
citing authors

#	ARTICLE	IF	CITATIONS
1	The dynamic neural field approach to cognitive robotics. Journal of Neural Engineering, 2006, 3, R36-R54.	1.8	111
2	The dynamic approach to autonomous robotics demonstrated on a low-level vehicle platform. Robotics and Autonomous Systems, 1997, 21, 23-35.	3.0	86
3	Review of Robotic Technology for Stereotactic Neurosurgery. IEEE Reviews in Biomedical Engineering, 2015, 8, 125-137.	13.1	75
4	Position-based kinematics for 7-DoF serial manipulators with global configuration control, joint limit and singularity avoidance. Mechanism and Machine Theory, 2018, 121, 317-334.	2.7	69
5	Goal-directed imitation for robots: A bio-inspired approach to action understanding and skill learning. Robotics and Autonomous Systems, 2006, 54, 353-360.	3.0	66
6	A dynamic model for action understanding and goal-directed imitation. Brain Research, 2006, 1083, 174-188.	1.1	58
7	Neuro-cognitive mechanisms of decision making in joint action: A human-robot interaction study. Human Movement Science, 2011, 30, 846-868.	0.6	58
8	A dynamical systems approach to behavior-based formation control. , 0, , .		57
9	Attractor dynamics approach to formation control: theory and application. Autonomous Robots, 2010, 29, 331-355.	3.2	53
10	Postural Stability Analysis with Inertial Measurement Units in Alzheimer's Disease. Dementia and Geriatric Cognitive Disorders Extra, 2014, 4, 22-30.	0.6	37
11	Application of Machine Learning in Postural Control Kinematics for the Diagnosis of Alzheimer's Disease. Computational Intelligence and Neuroscience, 2016, 2016, 1-15.	1.1	37
12	Multi-constrained joint transportation tasks by teams of autonomous mobile robots using a dynamical systems approach. , 2016, , .		33
13	Formation control for multiple mobile robots: a non-linear attractor dynamics approach. , 0, , .		32
14	Human-Like Arm Motion Generation: A Review. Robotics, 2020, 9, 102.	2.1	31
15	Integrating verbal and nonverbal communication in a dynamic neural field architecture for human-robot interaction. Frontiers in Neurorobotics, 2010, 4, .	1.6	28
16	Validation of a stereo camera system to quantify brain deformation due to breathing and pulsatility. Medical Physics, 2014, 41, 113502.	1.6	27
17	Multi-bump solutions in a neural field model with external inputs. Physica D: Nonlinear Phenomena, 2016, 326, 32-51.	1.3	24
18	The effect of levodopa on postural stability evaluated by wearable inertial measurement units for idiopathic and vascular Parkinson's disease. Gait and Posture, 2015, 41, 459-464.	0.6	23

#	ARTICLE	IF	CITATIONS
19	Compensatory Postural Adjustments in an Oculus Virtual Reality Environment and the Risk of Falling in Alzheimer's Disease. <i>Dementia and Geriatric Cognitive Disorders Extra</i> , 2016, 6, 252-267.	0.6	23
20	Ergonomics and Human Factors as a Requirement to Implement Safer Collaborative Robotic Workstations: A Literature Review. <i>Safety</i> , 2021, 7, 71.	0.9	23
21	Compensatory postural adjustments in Parkinson's disease assessed via a virtual reality environment. <i>Behavioural Brain Research</i> , 2016, 296, 384-392.	1.2	20
22	Role of the Visual and Auditory Systems in Postural Stability in Alzheimer's Disease. <i>Journal of Alzheimer's Disease</i> , 2015, 46, 441-449.	1.2	19
23	Gait stride-to-stride variability and foot clearance pattern analysis in Idiopathic Parkinson's Disease and Vascular Parkinsonism. <i>Journal of Biomechanics</i> , 2019, 92, 98-104.	0.9	16
24	Automatic Denavit-Hartenberg Parameter Identification for Serial Manipulators. , 2019, , .		15
25	Off-line simulation inspires insight: A neurodynamics approach to efficient robot task learning. <i>Neural Networks</i> , 2015, 72, 123-139.	3.3	14
26	Parkinson's Disease and Fabry Disease: Clinical, Biochemical and Neuroimaging Analysis of Three Pedigrees. <i>Journal of Parkinson's Disease</i> , 2020, 10, 141-152.	1.5	14
27	A neural integrator model for planning and value-based decision making of a robotics assistant. <i>Neural Computing and Applications</i> , 2021, 33, 3737-3756.	3.2	14
28	A Human-like Upper-limb Motion Planner: Generating naturalistic movements for humanoid robots. <i>International Journal of Advanced Robotic Systems</i> , 2021, 18, 172988142199858.	1.3	14
29	Robot formations: Robots allocation and leader-follower pairs. , 2008, , .		12
30	Attractor dynamics generates robot formation: from theory to implementation. , 2004, , .		11
31	A dynamic field approach to goal inference, error detection and anticipatory action selection in human-robot collaboration. <i>Advances in Interaction Studies</i> , 2011, , 135-164.	1.0	11
32	On the development of intention understanding for joint action tasks. , 2007, , .		10
33	The power of prediction: Robots that read intentions. , 2012, , .		10
34	Attractor dynamics approach to joint transportation by autonomous robots: theory, implementation and validation on the factory floor. <i>Autonomous Robots</i> , 2019, 43, 589-610.	3.2	10
35	FIBR3DEmul"an open-access simulation solution for 3D printing processes of FDM machines with 3+ actuated axes. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 106, 3609-3623.	1.5	10
36	Object transportation by multiple mobile robots controlled by attractor dynamics: theory and implementation. , 2007, , .		9

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37	Artificial Neural Networks Classification of Patients with Parkinsonism based on Gait. , 2018, , .		9
38	A Dynamic Neural Field Approach to Natural and Efficient Human-Robot Collaboration. , 2014, , 341-365.		9
39	Rapid Learning of Complex Sequences With Time Constraints: A Dynamic Neural Field Model. IEEE Transactions on Cognitive and Developmental Systems, 2021, 13, 853-864.	2.6	9
40	Using attractor dynamics to control autonomous vehicle motion. , 0, , .		8
41	Learning a musical sequence by observation: A robotics implementation of a dynamic neural field model. , 2014, , .		8
42	A dynamic neural field model of continuous input integration. Biological Cybernetics, 2021, 115, 451-471.	0.6	8
43	Different protocols for analyzing behavior and adaptability in obstacle crossing in Parkinson’s disease. Clinical Interventions in Aging, 2017, Volume 12, 1843-1857.	1.3	7
44	Discrimination of idiopathic Parkinson’s disease and vascular parkinsonism based on gait time series and the levodopa effect. Journal of Biomechanics, 2021, 125, 110214.	0.9	7
45	Target position estimation, target acquisition, and obstacle avoidance. , 0, , .		6
46	A self-tunable dynamic vibration absorber: Parkinson's Disease's tremor suppression. , 2013, , .		6
47	Human—Robot Interaction in Industrial Settings: Perception of Multiple Participants at a Crossroad Intersection Scenario with Different Courtesy Cues. Robotics, 2022, 11, 59.	2.1	6
48	Autonomous flight trajectory generation via attractor dynamics. , 2005, , .		5
49	Transportation of long objects in unknown cluttered environments by a team of robots: A dynamical systems approach. , 2013, , .		5
50	Learning joint representations for order and timing of perceptual-motor sequences: A dynamic neural field approach. , 2015, , .		5
51	Combining intention and emotional state inference in a dynamic neural field architecture for human-robot joint action. Adaptive Behavior, 2016, 24, 350-372.	1.1	5
52	A Dynamic Field Model of Ordinal and Timing Properties of Sequential Events. Lecture Notes in Computer Science, 2011, , 325-332.	1.0	5
53	A dynamic neural field architecture for a pro-active assistant robot. , 2010, , .		4
54	Combining Spatial and Parametric Working Memory in a Dynamic Neural Field Model. Lecture Notes in Computer Science, 2016, , 411-418.	1.0	4

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55	Experiential Learning of Robotics Fundamentals Based on a Case Study of Robot-Assisted Stereotactic Neurosurgery. IEEE Transactions on Education, 2016, 59, 119-128.	2.0	4
56	Gait classification of patients with Fabry's disease based on normalized gait features obtained using multiple regression models. , 2019, , .		4
57	Differential width discrimination task for active and passive tactile discrimination in humans. MethodsX, 2020, 7, 100852.	0.7	4
58	Neural Field Model for Measuring and Reproducing Time Intervals. Lecture Notes in Computer Science, 2019, , 327-338.	1.0	4
59	Towards temporal cognition for robots: A neurodynamics approach. , 2017, , .		3
60	Motion Control for Autonomous Tugger Vehicles in Dynamic Factory Floors Shared with Human Operators. , 2019, , .		3
61	A safe autonomous stacker in human shared workspaces. , 2020, , .		3
62	Dynamic Identification of Stop Locations from GPS Trajectories Based on Their Temporal and Spatial Characteristics. Lecture Notes in Computer Science, 2021, , 347-359.	1.0	3
63	A Multivariate Randomized Controlled Experiment about the Effects of Mindfulness Priming on EEG Neurofeedback Self-Regulation Serious Games. Applied Sciences (Switzerland), 2021, 11, 7725.	1.3	3
64	Action Understanding and Imitation Learning in a Robot-Human Task. Lecture Notes in Computer Science, 2005, , 261-268.	1.0	3
65	Human-Like Movement of an Anthropomorphic Robot: Problem Revisited. , 2011, , .		2
66	Robotic implantation of intracerebral electrodes for Deep Brain Stimulation. , 2013, , .		2
67	A socially assistive robot for people with motor impairments. , 2013, , .		2
68	Analysis of postural kinetics data using Artificial Neural Networks in Alzheimer's Disease. , 2014, , .		2
69	Nonlinear optimization for human-like synchronous movements of a dual arm-hand robotic system. AIP Conference Proceedings, 2015, , .	0.3	2
70	Superquadrics objects representation for robot manipulation. AIP Conference Proceedings, 2016, , .	0.3	2
71	Robotic Assisted Deep Brain Stimulation Neurosurgery: First Steps on System Development. , 2013, , .		2
72	ON OBSERVATIONAL LEARNING OF HIERARCHIES IN SEQUENTIAL TASKS: A DYNAMIC NEURAL FIELD MODEL. , 2014, , .		2

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73	Towards Endowing Collaborative Robots with Fast Learning for Minimizing Tutorsâ€™ Demonstrations: What and When to Do?. Advances in Intelligent Systems and Computing, 2020, , 368-378.	0.5	2
74	Global Implications of Human Tendencies Towards Automated Driving and Human Driver Availability in Autonomous Vehicles. Lecture Notes in Computer Science, 2020, , 179-192.	1.0	2
75	A Self-Tunable Dynamic Vibration Absorber: Analysis, Modulation and Simulation for Parkinsonian Tremors. , 2013, , .		1
76	Generating human-like movements on an anthropomorphic robot using an interior point method. , 2013, , .		1
77	Teaching/learning PBL activity: Gantry crane control system implementation. , 2017, , .		1
78	A Self-Tunable Dynamic Vibration Absorber for Tremor Suppression. , 2013, , .		1
79	A Data Recording Mobile Application to Create Datasets of Vehicle Usersâ€™ Routines. , 2022, , .		1
80	Multi-robot cognitive formations. , 2012, , .		0
81	Special session: Dynamic interactions between visual experiences, actions and word learning. , 2014, , .		0
82	Global vs. local nonlinear optimization techniques for human-like movement of an anthropomorphic robot. AIP Conference Proceedings, 2015, , .	0.3	0
83	A software framework for the implementation of Dynamic Neural Field control architectures for human-robot interaction. , 2017, , .		0
84	Numerical analysis of the shape of bump solutions in a neuronal model of working memory. AIP Conference Proceedings, 2019, , .	0.3	0
85	Continual Learning of Human-like Arm Postures. , 2021, , .		0
86	Gait Characteristics and Their Discriminative Ability in Patients with Fabry Disease with and Without White-Matter Lesions. Lecture Notes in Computer Science, 2020, , 415-428.	1.0	0
87	Autonomous Vehicles on the Factory Floor: An Approach to Safety. , 2021, , .		0
88	Trajectory tracking for the inspection of deformable objects considering manipulability of a 7-DoF serial manipulator. , 2022, , .		0