

Wolfram Erlhagen

List of Publications by Year in descending order

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Version: 2024-02-01

72
papers

2,131
citations

361413

20
h-index

243625

44
g-index

75
all docs

75
docs citations

75
times ranked

1379
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic field theory of movement preparation.. Psychological Review, 2002, 109, 545-572.	3.8	503
2	Parametric Population Representation of Retinal Location: Neuronal Interaction Dynamics in Cat Primary Visual Cortex. Journal of Neuroscience, 1999, 19, 9016-9028.	3.6	135
3	The distribution of neuronal population activation (DPA) as a tool to study interaction and integration in cortical representations. Journal of Neuroscience Methods, 1999, 94, 53-66.	2.5	125
4	The dynamic neural field approach to cognitive robotics. Journal of Neural Engineering, 2006, 3, R36-R54.	3.5	111
5	Shorter latencies for motion trajectories than for flashes in population responses of cat primary visual cortex. Journal of Physiology, 2004, 556, 971-982.	2.9	105
6	Internal models for visual perception. Biological Cybernetics, 2003, 88, 409-417.	1.3	99
7	Prior information preshapes the population representation of movement direction in motor cortex. NeuroReport, 1998, 9, 315-319.	1.2	94
8	Goals and means in action observation: A computational approach. Neural Networks, 2006, 19, 311-322.	5.9	75
9	Review of Robotic Technology for Stereotactic Neurosurgery. IEEE Reviews in Biomedical Engineering, 2015, 8, 125-137.	18.0	75
10	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.	4.5	69
11	Goal-directed imitation for robots: A bio-inspired approach to action understanding and skill learning. Robotics and Autonomous Systems, 2006, 54, 353-360.	5.1	66
12	LEARNING TO TIME: A PERSPECTIVE. Journal of the Experimental Analysis of Behavior, 2009, 92, 423-458.	1.1	63
13	A dynamic model for action understanding and goal-directed imitation. Brain Research, 2006, 1083, 174-188.	2.2	58
14	Neuro-cognitive mechanisms of decision making in joint action: A human-robot interaction study. Human Movement Science, 2011, 30, 846-868.	1.4	58
15	Multi-constrained joint transportation tasks by teams of autonomous mobile robots using a dynamical systems approach. , 2016, , .		33
16	Human-Like Arm Motion Generation: A Review. Robotics, 2020, 9, 102.	3.5	31
17	Optimization of dynamic neural fields. Neurocomputing, 2001, 36, 225-233.	5.9	28
18	Integrating verbal and nonverbal communication in a dynamic neural field architecture for human-robot interaction. Frontiers in Neurorobotics, 2010, 4, .	2.8	28

#	ARTICLE	IF	CITATIONS
19	The Dynamic Neural Field Theory of Motor Programming: Arm and Eye Movements. <i>Advances in Psychology</i> , 1997, , 271-310.	0.1	24
20	Multi-bump solutions in a neural field model with external inputs. <i>Physica D: Nonlinear Phenomena</i> , 2016, 326, 32-51.	2.8	24
21	The role of action plans and other cognitive factors in motion extrapolation: A modelling study. <i>Visual Cognition</i> , 2004, 11, 315-340.	1.6	22
22	Effects of attention on a relative mislocalization with successively presented stimuli. <i>Vision Research</i> , 2010, 50, 1793-1802.	1.4	19
23	Bridging the gap: a model of common neural mechanisms underlying the FrÃ¼hlich effect, the flash-lag effect, and the representational momentum effect. , 2010, , 422-440.		18
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.	5.9	14
26	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.	5.6	14
27	A Human-like Upper-limb Motion Planner: Generating naturalistic movements for humanoid robots. <i>International Journal of Advanced Robotic Systems</i> , 2021, 18, 172988142199858.	2.1	14
28	Relative mislocalization of successively presented stimuli. <i>Vision Research</i> , 2008, 48, 2204-2212.	1.4	13
29	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.	2.0	11
30	On the development of intention understanding for joint action tasks. , 2007, , .		10
31	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.	4.8	10
32	Object transportation by multiple mobile robots controlled by attractor dynamics: theory and implementation. , 2007, , .		9
33	Artificial Neural Networks Classification of Patients with Parkinsonism based on Gait. , 2018, , .		9
34	A Dynamic Neural Field Approach to Natural and Efficient Human-Robot Collaboration. , 2014, , 341-365.		9
35	Rapid Learning of Complex Sequences With Time Constraints: A Dynamic Neural Field Model. <i>IEEE Transactions on Cognitive and Developmental Systems</i> , 2021, 13, 853-864.	3.8	9
36	Learning a musical sequence by observation: A robotics implementation of a dynamic neural field model. , 2014, , .		8

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37	A dynamic neural field model of continuous input integration. <i>Biological Cybernetics</i> , 2021, 115, 451-471.	1.3	8
38	NON-DESTRUCTIVE WHOLE-BRAIN MONITORING USING NANOROBOTS: NEURAL ELECTRICAL DATA RATE REQUIREMENTS. <i>International Journal of Machine Consciousness</i> , 2012, 04, 109-140.	1.0	7
39	Discrimination of idiopathic Parkinson's disease and vascular parkinsonism based on gait time series and the levodopa effect. <i>Journal of Biomechanics</i> , 2021, 125, 110214.	2.1	7
40	A neural field model for saccade planning in the superior colliculus: speed-accuracy tradeoff in the double-target paradigm. <i>Neurocomputing</i> , 2002, 44-46, 623-628.	5.9	6
41	Implementing Bayes' Rule with Neural Fields. <i>Lecture Notes in Computer Science</i> , 2008, , 228-237.	1.3	6
42	Transportation of long objects in unknown cluttered environments by a team of robots: A dynamical systems approach. , 2013, , .		5
43	Learning joint representations for order and timing of perceptual-motor sequences: A dynamic neural field approach. , 2015, , .		5
44	Combining intention and emotional state inference in a dynamic neural field architecture for human-robot joint action. <i>Adaptive Behavior</i> , 2016, 24, 350-372.	1.9	5
45	A Dynamic Field Model of Ordinal and Timing Properties of Sequential Events. <i>Lecture Notes in Computer Science</i> , 2011, , 325-332.	1.3	5
46	A dynamic neural field architecture for a pro-active assistant robot. , 2010, , .		4
47	Combining Spatial and Parametric Working Memory in a Dynamic Neural Field Model. <i>Lecture Notes in Computer Science</i> , 2016, , 411-418.	1.3	4
48	Experiential Learning of Robotics Fundamentals Based on a Case Study of Robot-Assisted Stereotactic Neurosurgery. <i>IEEE Transactions on Education</i> , 2016, 59, 119-128.	2.4	4
49	Gait classification of patients with Fabry's disease based on normalized gait features obtained using multiple regression models. , 2019, , .		4
50	Neural Field Model for Measuring and Reproducing Time Intervals. <i>Lecture Notes in Computer Science</i> , 2019, , 327-338.	1.3	4
51	Population coding in cat visual cortex reveals nonlinear interactions as predicted by a neural field model. <i>Lecture Notes in Computer Science</i> , 1996, , 641-648.	1.3	4
52	Evolving field models for inhibition effects in early vision. <i>Neurocomputing</i> , 2002, 44-46, 467-472.	5.9	3
53	Towards temporal cognition for robots: A neurodynamics approach. , 2017, , .		3
54	Numerical simulations of two-dimensional neural fields with applications to working memory. , 2018, , .		3

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55	Motion Control for Autonomous Tugger Vehicles in Dynamic Factory Floors Shared with Human Operators. , 2019, , .		3
56	Dynamic Identification of Stop Locations from GPS Trajectories Based on Their Temporal and Spatial Characteristics. Lecture Notes in Computer Science, 2021, , 347-359.	1.3	3
57	Action Understanding and Imitation Learning in a Robot-Human Task. Lecture Notes in Computer Science, 2005, , 261-268.	1.3	3
58	Numerical solution of the stochastic neural field equation with applications to working memory. Physica A: Statistical Mechanics and Its Applications, 2022, 596, 127166.	2.6	3
59	Robust persistent activity in neural fields with asymmetric connectivity. Neurocomputing, 2006, 69, 1141-1145.	5.9	2
60	Superquadrics objects representation for robot manipulation. AIP Conference Proceedings, 2016, , .	0.4	2
61	Robotic Assisted Deep Brain Stimulation Neurosurgery: First Steps on System Development. , 2013, , .		2
62	ON OBSERVATIONAL LEARNING OF HIERARCHIES IN SEQUENTIAL TASKS: A DYNAMIC NEURAL FIELD MODEL. , 2014, , .		2
63	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.	0.6	2
64	Brain-inspired multiple-target tracking using Dynamic Neural Fields. Neural Networks, 2022, 151, 121-131.	5.9	1
65	Multi-robot cognitive formations. , 2012, , .		0
66	Special session: Dynamic interactions between visual experiences, actions and word learning. , 2014, , .		0
67	Global vs. local nonlinear optimization techniques for human-like movement of an anthropomorphic robot. AIP Conference Proceedings, 2015, , .	0.4	0
68	A software framework for the implementation of Dynamic Neural Field control architectures for human-robot interaction. , 2017, , .		0
69	Numerical analysis of the shape of bump solutions in a neuronal model of working memory. AIP Conference Proceedings, 2019, , .	0.4	0
70	Mathematical Modeling of Working Memory in the Presence of Random Disturbance using Neural Field Equations. EPJ Web of Conferences, 2021, 248, 01021.	0.3	0
71	Continual Learning of Human-like Arm Postures. , 2021, , .		0
72	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.	1.3	0