Philippe gaussier

List of Publications by Year
in descending order

Version: 2024-02-01

92 papers	788 citations	687363 13 h-index	677142 22 g-index
98 all docs	98 docs citations	98 times ranked	589 citing authors

#	Article	IF	Citations
1	PerAc: A neural architecture to control artificial animals. Robotics and Autonomous Systems, 1995, 16, 291-320.	5.1	79
2	Robots Learn to Recognize Individuals from Imitative Encounters with People and Avatars. Scientific Reports, 2016, 6, 19908.	3.3	44
3	A Robot Learns the Facial Expressions Recognition and Face/Non-face Discrimination Through an Imitation Game. International Journal of Social Robotics, 2014, 6, 633-652.	4.6	43
4	From grid cells and visual place cells to multimodal place cell: a new robotic architecture. Frontiers in Neurorobotics, 2015, 9, 1.	2.8	39
5	Learning Invariant Sensorimotor Behaviors: A Developmental Approach to Imitation Mechanisms. Adaptive Behavior, 2004, 12, 117-140.	1.9	32
6	Chapter 4 Space-time, order, and hierarchy in fronto-hippocampal system: A neural basis of personality. Advances in Psychology, 1997, 124, 123-189.	0.1	24
7	From self-assessment to frustration, a small step toward autonomy in robotic navigation. Frontiers in Neurorobotics, 2013, 7, 16.	2.8	24
8	Robust Mapless Outdoor Vision-Based Navigation. , 2006, , .		23
9	Modeling the Minimal Newborn's Intersubjective Mind: The Visuotopic-Somatotopic Alignment Hypothesis in the Superior Colliculus. PLoS ONE, 2013, 8, e69474.	2.5	23
10	Using the Rhythm of Nonverbal Humanâ€“Robot Interaction as a Signal for Learning. IEEE Transactions on Autonomous Mental Development, 2011, 3, 30-42.	1.6	21
11	Development of First Social Referencing Skills: Emotional Interaction as a Way to Regulate Robot Behavior. IEEE Transactions on Autonomous Mental Development, 2014, 6, 42-55.	1.6	19
12	Reading motor intention through mental imagery. Adaptive Behavior, 2013, 21, 315-327.	1.9	18
13	Time as the fourth dimension in the hippocampus. Progress in Neurobiology, 2021, 199, 101920.	5.7	16
14	Interactive Teaching for Vision-Based Mobile Robots: A Sensory-Motor Approach. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2010, 40, 13-28.	2.9	15
15	Touch-based admittance control of a robotic arm using neural learning of an artificial skin. , 2016, , .		15
16	Merging information in the entorhinal cortex: what can we learn from robotics experiments and modeling?. Journal of Experimental Biology, 2019, 222, .	1.7	14
17	Emotions as a dynamical system: the interplay between the meta-control and communication function of emotions. Paladyn, 2011, 2, .	2.7	13
18	A Synchrony-Based Perspective for Partner Selection and Attentional Mechanism in Human-Robot Interaction. Paladyn, 2012, 3, 156-171.	2.7	13

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19	Neural learning of the topographic tactile sensory information of an artificial skin through a self-organizing map. Advanced Robotics, 2015, 29, 1393-1409.	1.8	13
20	On-line learning and planning in a pick-and-place task demonstrated through body manipulation. , 2011, , .		11
21	Adaptation capability of cognitive map improves behaviors of social robots. , 2012, , .		11
22	Exploiting the gain-modulation mechanism in parieto-motor neurons: Application to visuomotor transformations and embodied simulation. Neural Networks, 2015, 62, 102-111.	5.9	11
23	A TEST OF THE TIME ESTIMATION HYPOTHESIS OF PLACE CELL GOAL-RELATED ACTIVITY. Journal of Integrative Neuroscience, 2007, 06, 367-378.	1.7	10
24	Emergent imitative behavior on a robotic arm based on visuo-motor associative memories. , 2010, , .		10
25	Biologically inspired neural networks for spatio-temporal planning in robotic navigation tasks. , 2011, , .		10
26	Gain-field modulation mechanism in multimodal networks for spatial perception. , 2012, , .		10
27	Iterative free-energy optimization for recurrent neural networks (INFERNO). PLoS ONE, 2017, 12, e0173684.	2.5	10
28	Development of joint attention and social referencing. , 2011, , .		9
29	Brain-Inspired Coding of Robot Body Schema Through Visuo-Motor Integration of Touched Events. Frontiers in Neurorobotics, 2019, 13, 5.	2.8	9
30	Autonomous Cognitive Robots Need Emotional Modulations: Introducing the eMODUL Model. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 206-215.	9.3	9
31	Intuitive human robot interaction based on unintentional synchrony: A psycho-experimental study. , 2013, , .		8
32	How can a robot evaluate its own behavior? A neural model for self-assessment. , 2013, , .		8
33	Learning to Synchronously Imitate Gestures Using Entrainment Effect. Lecture Notes in Computer Science, 2016, , 219-231.	1.3	8
34	Unintentional entrainment effect in a context of Human Robot Interaction: An experimental study. , 2017, , .		8
35	Neural model for learning-to-learn of novel task sets in the motor domain. Frontiers in Psychology, 2013, 4, 771.	2.1	7
36	A Modular Dynamic Sensorimotor Model for Affordances Learning, Sequences Planning, and Tool-Use. IEEE Transactions on Cognitive and Developmental Systems, 2018, 10, 72-87.	3.8	7

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37	Multimodal Integration of Visual Place Cells and Grid Cells for Navigation Tasks of a Real Robot. Lecture Notes in Computer Science, 2012, , 136-145.	1.3	7
38	Emotional metacontrol of attention: Top-down modulation of sensorimotor processes in a robotic visual search task. PLoS ONE, 2017, 12, e0184960.	2.5	7
39	Emergent complex behaviors for swarm robotic systems by local rules. , 2011, , .		6
40	Synchrony as a tool to establish focus of attention for autonomous robots. , 2012, , .		6
41	HYDROÃ¯D Humanoid Robot Head with Perception and Emotion Capabilities: Modeling, Design, and Experimental Results. Frontiers in Robotics and AI, 2016, 3, .	3.2	6
42	Robustness Study of a Multimodal Compass Inspired from HD-Cells and Dynamic Neural Fields. Lecture Notes in Computer Science, 2014, , 132-143.	1.3	6
43	Path Integration Working Memory for Multi Tasks Dead Reckoning and Visual Navigation. Lecture Notes in Computer Science, 2010, , 380-389.	1.3	5
44	Electronic hardware design of a low cost tactile sensor device for physical human-robot interactions. , 2013, , .		5
45	Synchrony Detection as a Reinforcement Signal for Learning: Application to Human Robot Interaction. Procedia, Social and Behavioral Sciences, 2014, 126, 82-91.	0.5	5
46	Readability of the gaze and expressions of a robot museum visitor: Impact of the low level sensory-motor control. , 2017, , .		5
47	Visual Learning for Reaching and Body-Schema with Gain-Field Networks. , 2018, , .		5
48	Un robot comme personne. Terrain, 2014, , 152-165.	0.0	5
49	From reflex to planning: Multimodal versatile complex systems in biorobotics. Behavioral and Brain Sciences, 2001, 24, 1051-1053.	0.7	4
50	Frustration as a way toward autonomy and self-improvement in robotic navigation. , 2013, , .		4
51	Emotional modulation of peripersonal space as a way to represent reachable and comfort areas. , 2015, , .		4
52	Simulating the Emergence of Early Physical and Social Interactions : A Developmental Route through Low Level Visuomotor Learning. Lecture Notes in Computer Science, 2014, , 154-165.	1.3	4
53	“Synchrony” as a way to choose an interacting partner. , 2012, , .		3
54	An architecture for online chunk learning and planning in complex navigation and manipulation tasks. , 2012, , .		3

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55	Distinct mechanisms for multimodal integration and unimodal representation in spatial development. , 2012, , .		3
56	Learning by Imitation for the Improvement of the Individual and the Social Behaviors of Self-organized Autonomous Agents. Lecture Notes in Computer Science, 2013, , 44-52.	1.3	3
57	Combining local and global visual information in context-based neurorobotic navigation. , 2016, , .		3
58	Spatio-Temporal Tolerance of Visuo-Tactile Illusions in Artificial Skin by Recurrent Neural Network with Spike-Timing-Dependent Plasticity. Scientific Reports, 2017, 7, 41056.	3.3	3
59	A model of path integration and representation of spatial context in the retrosplenial cortex. Biological Cybernetics, 2020, 114, 303-313.	1.3	3
60	From Cognitive to Habit Behavior During Navigation, Through Cortical-Basal Ganglia Loops. Lecture Notes in Computer Science, 2016, , 238-247.	1.3	3
61	LPMP: A Bio-Inspired Model for Visual Localization in Challenging Environments. Frontiers in Robotics and AI, 2021, 8, 703811.	3.2	3
62	Frustration as a generical regulatory mechanism for motivated navigation. , 2010, , .		2
63	The effect of learning by imitation on a multi-robot system based on the coupling of low-level imitation strategy and online learning for cognitive map building. Advanced Robotics, 2014, , 1-13.	1.8	2
64	Comparison of absolute and relative strategies to encode sensorimotor transformations in tool-use. , 2015, , .		2
65	Online learning and control of attraction basins for the development of sensorimotor control strategies. Biological Cybernetics, 2015, 109, 255-274.	1.3	2
66	Working-memory prefrontal model for cognitive flexibility in task-switching and selection. , 2020, , .		2
67	When Artificial Intelligence and Computational Neuroscience Meet. , 2020, , 303-335.		2
68	Effect of low level imitation strategy on an autonomous Multi-Robot System using on-line learning for cognitive map building. , 2012, , .		1
69	Artificial aesthetic: An interesting framework for epigenetic robotics. , 2012, , .		1
70	Explaining neonate facial imitation from the sensory alignment in the superior colliculus. , 2013, , .		1
71	Building specific contexts for on-line learning of dynamical tasks through non-verbal interaction. , 2013, , .		1
72	A robot to study the development of artwork appreciation through social interactions. , 2013, , .		1

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73	Learning sensorimotor navigation using synchrony-based partner selection. , 2016, , .		1
74	Walking synchronously with a mobile robot using mutual rhythmic entrainement. , 2016, , .		1
75	Is it useful for a robot to visit a museum?. Paladyn, 2018, 9, 374-390.	2.7	1
76	Coupling Learning Capability and Local Rules for the Improvement of the Objectsâ€™ Aggregation Task by a Cognitive Multi-Robot System. Lecture Notes in Computer Science, 2014, , 290-299.	1.3	1
77	Effect of the Emergent Structures in the Improvement of the Performance of the Cognitive Agents. Lecture Notes in Computer Science, 2015, , 560-569.	1.3	1
78	Emotional modulation of peripersonal space impacts the way robots interact. , 0, , .		1
79	Active focus and zoom control used for scene analysis. , 2010, , .		0
80	A developmental approach of imitation to study the emergence of mirror neurons in a sensory-motor controller. BIO Web of Conferences, 2011, 1, 00074.	0.2	0
81	Behavior adaptation from negative social feedback based on goal awareness. , 2012, , .		0
82	Learning anticipatory motor control. , 2012, , .		0
83	Goal conditioning throw mutimodal categorisation in a simulation of rat navigation. BMC Neuroscience, 2013, 14, .	1.9	0
84	Optimization through coupling learning capability and imitation strategy in a Multi-Robot System. , 2013, , .		0
85	Combining synchrony and shape detection to sustain the robot focus of attention on a selected human partner. , 2013, , .		0
86	Cortical chunks learning for action selection in a complex task. , 2014, , .		0
87	Cooperation/supervision of a habit by a cognitive strategy in a goal-directed navigational paradigm. BMC Neuroscience, 2015, 16, .	1.9	0
88	Dynamic sensorimotor model for open-ended acquisition of tool-use. , 2016, , .		0
89	Synchronisation and desynchronisation as important elements for the development of interaction capabilities. , 2017, , .		0
90	Active vision: on the relevance of a bio-inspired approach for object detection. Bioinspiration and Biomimetics, 2020, 15, 025003.	2.9	0

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91	Synchrony based side by side walking. , 2014, , .		0
92	Visitor or Artefact! An Experiment with a Humanoid Robot at the MusÃ©e du Quai Branly in Paris. Springer Tracts in Advanced Robotics, 2019, , 101-117.	0.4	0