

Philippe gaussier

List of Publications by Year in descending order

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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	Time as the fourth dimension in the hippocampus. Progress in Neurobiology, 2021, 199, 101920.	5.7	16
2	LPMP: A Bio-Inspired Model for Visual Localization in Challenging Environments. Frontiers in Robotics and AI, 2021, 8, 703811.	3.2	3
3	Active vision: on the relevance of a bio-inspired approach for object detection. Bioinspiration and Biomimetics, 2020, 15, 025003.	2.9	0
4	Working-memory prefrontal model for cognitive flexibility in task-switching and selection. , 2020, , .		2
5	A model of path integration and representation of spatial context in the retrosplenial cortex. Biological Cybernetics, 2020, 114, 303-313.	1.3	3
6	When Artificial Intelligence and Computational Neuroscience Meet. , 2020, , 303-335.		2
7	Brain-Inspired Coding of Robot Body Schema Through Visuo-Motor Integration of Touched Events. Frontiers in Neurorobotics, 2019, 13, 5.	2.8	9
8	Merging information in the entorhinal cortex: what can we learn from robotics experiments and modeling?. Journal of Experimental Biology, 2019, 222, .	1.7	14
9	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
10	Visitor or Artefact! An Experiment with a Humanoid Robot at the Musée du Quai Branly in Paris. Springer Tracts in Advanced Robotics, 2019, , 101-117.	0.4	0
11	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
12	Is it useful for a robot to visit a museum?. Paladyn, 2018, 9, 374-390.	2.7	1
13	Visual Learning for Reaching and Body-Schema with Gain-Field Networks. , 2018, , .		5
14	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
15	Unintentional entrainment effect in a context of Human Robot Interaction: An experimental study. , 2017, , .		8
16	Readability of the gaze and expressions of a robot museum visitor: Impact of the low level sensory-motor control. , 2017, , .		5
17	Synchronisation and desynchronisation as important elements for the development of interaction capabilities. , 2017, , .		0
18	Iterative free-energy optimization for recurrent neural networks (INFERNO). PLoS ONE, 2017, 12, e0173684.	2.5	10

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19	Emotional metacontrol of attention: Top-down modulation of sensorimotor processes in a robotic visual search task. PLoS ONE, 2017, 12, e0184960.	2.5	7
20	Learning sensorimotor navigation using synchrony-based partner selection. , 2016, , .		1
21	HYDROÃD Humanoid Robot Head with Perception and Emotion Capabilities: Modeling, Design, and Experimental Results. Frontiers in Robotics and AI, 2016, 3, .	3.2	6
22	Walking synchronously with a mobile robot using mutual rhythmic entrainment. , 2016, , .		1
23	Dynamic sensorimotor model for open-ended acquisition of tool-use. , 2016, , .		0
24	Combining local and global visual information in context-based neurobotic navigation. , 2016, , .		3
25	Touch-based admittance control of a robotic arm using neural learning of an artificial skin. , 2016, , .		15
26	Robots Learn to Recognize Individuals from Imitative Encounters with People and Avatars. Scientific Reports, 2016, 6, 19908.	3.3	44
27	Learning to Synchronously Imitate Gestures Using Entrainment Effect. Lecture Notes in Computer Science, 2016, , 219-231.	1.3	8
28	From Cognitive to Habit Behavior During Navigation, Through Cortical-Basal Ganglia Loops. Lecture Notes in Computer Science, 2016, , 238-247.	1.3	3
29	Cooperation/supervision of a habit by a cognitive strategy in a goal-directed navigational paradigm. BMC Neuroscience, 2015, 16, .	1.9	0
30	Comparison of absolute and relative strategies to encode sensorimotor transformations in tool-use. , 2015, , .		2
31	Emotional modulation of peripersonal space as a way to represent reachable and comfort areas. , 2015, , .		4
32	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
33	Online learning and control of attraction basins for the development of sensorimotor control strategies. Biological Cybernetics, 2015, 109, 255-274.	1.3	2
34	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
35	From grid cells and visual place cells to multimodal place cell: a new robotic architecture. Frontiers in Neurobotics, 2015, 9, 1.	2.8	39
36	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

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37	Cortical chunks learning for action selection in a complex task. , 2014, , .		0
38	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
39	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
40	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
41	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
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	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
44	Un robot comme personne. Terrain, 2014, , 152-165.	0.0	5
45	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
46	Synchrony based side by side walking. , 2014, , .		0
47	Goal conditioning throw multimodal categorisation in a simulation of rat navigation. BMC Neuroscience, 2013, 14, .	1.9	0
48	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
49	Explaining neonate facial imitation from the sensory alignment in the superior colliculus. , 2013, , .		1
50	Frustration as a way toward autonomy and self-improvement in robotic navigation. , 2013, , .		4
51	Electronic hardware design of a low cost tactile sensor device for physical human-robot interactions. , 2013, , .		5
52	Intuitive human robot interaction based on unintentional synchrony: A psycho-experimental study. , 2013, , .		8
53	Building specific contexts for on-line learning of dynamical tasks through non-verbal interaction. , 2013, , .		1
54	Optimization through coupling learning capability and imitation strategy in a Multi-Robot System. , 2013, , .		0

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55	How can a robot evaluate its own behavior? A neural model for self-assessment. , 2013, , .		8
56	A robot to study the development of artwork appreciation through social interactions. , 2013, , .		1
57	Combining synchrony and shape detection to sustain the robot focus of attention on a selected human partner. , 2013, , .		0
58	Reading motor intention through mental imagery. Adaptive Behavior, 2013, 21, 315-327.	1.9	18
59	Modeling the Minimal Newborn's Intersubjective Mind: The Visuotopic-Somatotopic Alignment Hypothesis in the Superior Colliculus. PLoS ONE, 2013, 8, e69474.	2.5	23
60	Neural model for learning-to-learn of novel task sets in the motor domain. Frontiers in Psychology, 2013, 4, 771.	2.1	7
61	From self-assessment to frustration, a small step toward autonomy in robotic navigation. Frontiers in Neurorobotics, 2013, 7, 16.	2.8	24
62	Effect of low level imitation strategy on an autonomous Multi-Robot System using on-line learning for cognitive map building. , 2012, , .		1
63	Behavior adaptation from negative social feedback based on goal awareness. , 2012, , .		0
64	“Synchrony” as a way to choose an interacting partner. , 2012, , .		3
65	Adaptation capability of cognitive map improves behaviors of social robots. , 2012, , .		11
66	Learning anticipatory motor control. , 2012, , .		0
67	Artificial aesthetic: An interesting framework for epigenetic robotics. , 2012, , .		1
68	Gain-field modulation mechanism in multimodal networks for spatial perception. , 2012, , .		10
69	Synchrony as a tool to establish focus of attention for autonomous robots. , 2012, , .		6
70	An architecture for online chunk learning and planning in complex navigation and manipulation tasks. , 2012, , .		3
71	Distinct mechanisms for multimodal integration and unimodal representation in spatial development. , 2012, , .		3
72	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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73	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
74	Development of joint attention and social referencing. , 2011, , .		9
75	Biologically inspired neural networks for spatio-temporal planning in robotic navigation tasks. , 2011, , .		10
76	Emergent complex behaviors for swarm robotic systems by local rules. , 2011, , .		6
77	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
78	Using the Rhythm of Nonverbal Human-Robot Interaction as a Signal for Learning. IEEE Transactions on Autonomous Mental Development, 2011, 3, 30-42.	1.6	21
79	Emotions as a dynamical system: the interplay between the meta-control and communication function of emotions. Paladyn, 2011, 2, .	2.7	13
80	On-line learning and planning in a pick-and-place task demonstrated through body manipulation. , 2011, , .		11
81	Frustration as a general regulatory mechanism for motivated navigation. , 2010, , .		2
82	Active focus and zoom control used for scene analysis. , 2010, , .		0
83	Emergent imitative behavior on a robotic arm based on visuo-motor associative memories. , 2010, , .		10
84	Path Integration Working Memory for Multi Tasks Dead Reckoning and Visual Navigation. Lecture Notes in Computer Science, 2010, , 380-389.	1.3	5
85	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
86	A TEST OF THE TIME ESTIMATION HYPOTHESIS OF PLACE CELL GOAL-RELATED ACTIVITY. Journal of Integrative Neuroscience, 2007, 06, 367-378.	1.7	10
87	Robust Mapless Outdoor Vision-Based Navigation. , 2006, , .		23
88	Learning Invariant Sensorimotor Behaviors: A Developmental Approach to Imitation Mechanisms. Adaptive Behavior, 2004, 12, 117-140.	1.9	32
89	From reflex to planning: Multimodal versatile complex systems in biorobotics. Behavioral and Brain Sciences, 2001, 24, 1051-1053.	0.7	4
90	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

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91	PerAc: A neural architecture to control artificial animals. Robotics and Autonomous Systems, 1995, 16, 291-320.	5.1	79
92	Emotional modulation of peripersonal space impacts the way robots interact. , 0, , .		1