Kenji Doya

List of Publications by Year
in descending order

174 papers	13,140 citations	46918 47 h-index	24915 109 g-index
195 all docs	195 docs citations	195 times ranked	10452 citing authors

#	Article	IF	Citations
1	A unifying computational framework for motor control and social interaction. Philosophical Transactions of the Royal Society B: Biological Sciences, 2003, 358, 593-602.	1.8	956
2	Representation of Action-Specific Reward Values in the Striatum. Science, 2005, 310, 1337-1340.	6.0	823
3	Complementary roles of basal ganglia and cerebellum in learning and motor control. Current Opinion in Neurobiology, 2000, 10, 732-739.	2.0	783
4	Prediction of immediate and future rewards differentially recruits cortico-basal ganglia loops. Nature Neuroscience, 2004, 7, 887-893.	7.1	757
5	Reinforcement Learning in Continuous Time and Space. Neural Computation, 2000, 12, 219-245.	1.3	738
6	Parallel neural networks for learning sequential procedures. Trends in Neurosciences, 1999, 22, 464-471.	4.2	702
7	Modulators of decision making. Nature Neuroscience, 2008, 11, 410-416.	7.1	548
8	Metalearning and neuromodulation. Neural Networks, 2002, 15, 495-506.	3.3	544
9	The computational neurobiology of learning and reward. Current Opinion in Neurobiology, 2006, 16, 199-204.	2.0	466
10	Multiple Model-Based Reinforcement Learning. Neural Computation, 2002, 14, 1347-1369.	1.3	353
11	Consensus Paper: Towards a Systems-Level View of Cerebellar Function: the Interplay Between Cerebellum, Basal Ganglia, and Cortex. Cerebellum, 2017, 16, 203-229.	1.4	321
12	A Neural Correlate of Reward-Based Behavioral Learning in Caudate Nucleus: A Functional Magnetic Resonance Imaging Study of a Stochastic Decision Task. Journal of Neuroscience, 2004, 24, 1660-1665.	1.7	265
13	Meta-learning in Reinforcement Learning. Neural Networks, 2003, 16, 5-9.	3.3	246
14	Hierarchical Bayesian estimation for MEG inverse problem. NeuroImage, 2004, 23, 806-826.	2.1	242
15	Low-Serotonin Levels Increase Delayed Reward Discounting in Humans. Journal of Neuroscience, 2008, 28, 4528-4532.	1.7	229
16	Validation of Decision-Making Models and Analysis of Decision Variables in the Rat Basal Ganglia. Journal of Neuroscience, 2009, 29, 9861-9874.	1.7	228
17	Optogenetic Activation of Dorsal Raphe Serotonin Neurons Enhances Patience for Future Rewards. Current Biology, 2014, 24, 2033-2040.	1.8	200
18	Activation of Dorsal Raphe Serotonin Neurons Underlies Waiting for Delayed Rewards. Journal of Neuroscience, 2011, 31, 469-479.	1.7	197

#	Article	IF	Citations
19	Acquisition of stand-up behavior by a real robot using hierarchical reinforcement learning. Robotics and Autonomous Systems, 2001, 36, 37-51.	3.0	186
20	Parallel Cortico-Basal Ganglia Mechanisms for Acquisition and Execution of Visuomotor Sequencesâ€"A Computational Approach. Journal of Cognitive Neuroscience, 2001, 13, 626-647.	1.1	174
21	Serotonin Differentially Regulates Short- and Long-Term Prediction of Rewards in the Ventral and Dorsal Striatum. PLoS ONE, 2007, 2, e1333.	1.1	154
22	Evidence for effector independent and dependent representations and their differential time course of acquisition during motor sequence learning. Experimental Brain Research, 2000, 132, 149-162.	0.7	153
23	Cerebellar aminergic neuromodulation: towards a functional understanding. Brain Research Reviews, 2004, 44, 103-116.	9.1	143
24	The Role of Serotonin in the Regulation of Patience and Impulsivity. Molecular Neurobiology, 2012, 45, 213-224.	1.9	131
25	Adaptive neural oscillator using continuous-time back-propagation learning. Neural Networks, 1989, 2, 375-385.	3.3	127
26	Electrophysiological Properties of Inferior Olive Neurons: A Compartmental Model. Journal of Neurophysiology, 1999, 82, 804-817.	0.9	124
27	Unsupervised learning of granule cell sparse codes enhances cerebellar adaptive control. Neuroscience, 2001, 103, 35-50.	1.1	114
28	Chaos may enhance information transmission in the inferior olive. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 4655-4660.	3.3	109
29	Robust Reinforcement Learning. Neural Computation, 2005, 17, 335-359.	1.3	108
30	Multiple representations and algorithms for reinforcement learning in the cortico-basal ganglia circuit. Current Opinion in Neurobiology, 2011, 21, 368-373.	2.0	108
31	Neuroethics Questions to Guide Ethical Research in the International Brain Initiatives. Neuron, 2018, 100, 19-36.	3.8	104
32	Reinforcement learning: Computational theory and biological mechanisms. HFSP Journal, 2007, 1, 30-40.	2.5	99
33	fMRI investigation of cortical and subcortical networks in the learning of abstract and effector-specific representations of motor sequences. NeuroImage, 2006, 32, 714-727.	2.1	94
34	Distinct Neural Representation in the Dorsolateral, Dorsomedial, and Ventral Parts of the Striatum during Fixed- and Free-Choice Tasks. Journal of Neuroscience, 2015, 35, 3499-3514.	1.7	93
35	Activation of Dorsal Raphe Serotonin Neurons Is Necessary for Waiting for Delayed Rewards. Journal of Neuroscience, 2012, 32, 10451-10457.	1.7	91
36	Identification of depression subtypes and relevant brain regions using a data-driven approach. Scientific Reports, 2018, 8, 14082.	1.6	90

#	Article	IF	Citations
37	Multiple Representations of Belief States and Action Values in Corticobasal Ganglia Loops. Annals of the New York Academy of Sciences, 2007, 1104, 213-228.	1.8	85
38	Learning CPG-based biped locomotion with a policy gradient method. Robotics and Autonomous Systems, 2006, 54, 911-920.	3.0	83
39	Understanding Neural Coding through the Model-Based Analysis of Decision Making: Figure 1.. Journal of Neuroscience, 2007, 27, 8178-8180.	1.7	81
40	A Kinetic Model of Dopamine- and Calcium-Dependent Striatal Synaptic Plasticity. PLoS Computational Biology, 2010, 6, e1000670.	1.5	81
41	Neural substrate of dynamic Bayesian inference in the cerebral cortex. Nature Neuroscience, 2016, 19, 1682-1689.	7.1	78
42	Prediction of clinical depression scores and detection of changes in whole-brain using resting-state functional MRI data with partial least squares regression. PLoS ONE, 2017, 12, e0179638.	1.1	78
43	Humans Can Adopt Optimal Discounting Strategy under Real-Time Constraints. PLoS Computational Biology, 2006, 2, e152.	1.5	70
44	Brain mechanism of reward prediction under predictable and unpredictable environmental dynamics. Neural Networks, 2006, 19, 1233-1241.	3.3	62
45	Toward Probabilistic Diagnosis and Understanding of Depression Based on Functional MRI Data Analysis with Logistic Group LASSO. PLoS ONE, 2015, 10, e0123524.	1.1	61
46	The Cyber Rodent Project: Exploration of Adaptive Mechanisms for Self-Preservation and Self-Reproduction. Adaptive Behavior, 2005, 13, 149-160.	1.1	58
47	Reinforcement learning: Computational theory and biological mechanisms. , 2007, 1, 30-40.		58
48	Serotonin Affects Association of Aversive Outcomes to Past Actions. Journal of Neuroscience, 2009, 29, 15669-15674.	1.7	54
49	Reward probability and timing uncertainty alter the effect of dorsal raphe serotonin neurons on patience. Nature Communications, 2018, 9, 2048.	5.8	54
50	Activation of the central serotonergic system in response to delayed but not omitted rewards. European Journal of Neuroscience, 2011, 33, 153-160.	1.2	53
51	Serotonin and the Evaluation of Future Rewards: Theory, Experiments, and Possible Neural Mechanisms. Annals of the New York Academy of Sciences, 2007, 1104, 289-300.	1.8	48
52	Inter-module credit assignment in modular reinforcement learning. Neural Networks, 2003, 16, 985-994.	3.3	47
53	Model-based action planning involves cortico-cerebellar and basal ganglia networks. Scientific Reports, 2016, 6, 31378.	1.6	45
54	Computational Model of Recurrent Subthalamo-Pallidal Circuit for Generation of Parkinsonian Oscillations. Frontiers in Neuroanatomy, 2017, 11, 21.	0.9	43

#	Article	IF	Citations
55	Reward-Predictive Neural Activities in Striatal Striosome Compartments. ENeuro, 2018, 5, ENEURO.0367-17.2018.	0.9	43
56	Adaptive Baseline Enhances EM-Based Policy Search: Validation in a View-Based Positioning Task of a Smartphone Balancer. Frontiers in Neurorobotics, 2017, 11, 1.	1.6	42
57	Hierarchical control of goal-directed action in the corticalâ€"basal ganglia network. Current Opinion in Behavioral Sciences, 2015, 5, 1-7.	2.0	38
58	Evolutionary Development of Hierarchical Learning Structures. IEEE Transactions on Evolutionary Computation, 2007, 11, 249-264.	7.5	34
59	Three-dimensional distribution of Fos-positive neurons in the supramammillary nucleus of the rat exposed to novel environment. Neuroscience Research, 2009, 64, 397-402.	1.0	34
60	Evidence for Model-Based Action Planning in a Sequential Finger Movement Task. Journal of Motor Behavior, 2010, 42, 371-379.	0.5	34
61	Reinforcement learning with via-point representation. Neural Networks, 2004, 17, 299-305.	3.3	33
62	Nitric Oxide Regulates Input Specificity of Long-Term Depression and Context Dependence of Cerebellar Learning. PLoS Computational Biology, 2007, 3, e179.	1.5	33
63	Changing the structure of complex visuo-motor sequences selectively activates the fronto-parietal network. NeuroImage, 2012, 59, 1180-1189.	2.1	30
64	Serotonergic projections to the orbitofrontal and medial prefrontal cortices differentially modulate waiting for future rewards. Science Advances, 2020, 6, .	4.7	30
65	Near-Saddle-Node Bifurcation Behavior as Dynamics in Working Memory for Goal-Directed Behavior. Neural Computation, 1998, 10, 113-132.	1.3	27
66	MOSAIC for Multiple-Reward Environments. Neural Computation, 2012, 24, 577-606.	1.3	25
67	Anterior and superior lateral occipito-temporal cortex responsible for target motion prediction during overt and covert visual pursuit. Neuroscience Research, 2006, 54, 112-123.	1.0	24
68	Inter-individual discount factor differences in reward prediction are topographically associated with caudate activation. Experimental Brain Research, 2011, 212, 593-601.	0.7	24
69	Prediction of Immediate and Future Rewards Differentially Recruits Cortico-Basal Ganglia Loops. , 2016, , 593-616.		23
70	Evolution of recurrent neural controllers using an extended parallel genetic algorithm. Robotics and Autonomous Systems, 2005, 52, 148-159.	3.0	20
71	Constrained reinforcement learning from intrinsic and extrinsic rewards. , 2007, , .		20
72	Co-evolution of Shaping Rewards and Meta-Parameters in Reinforcement Learning. Adaptive Behavior, 2008, 16, 400-412.	1.1	20

#	Article	IF	Citations
73	Decision making. Current Opinion in Neurobiology, 2012, 22, 911-913.	2.0	20
74	A biologically constrained spiking neural network model of the primate basal ganglia with overlapping pathways exhibits action selection. European Journal of Neuroscience, 2021, 53, 2254-2277.	1.2	20
75	Statistical characteristics of climbing fiber spikes necessary for efficient cerebellar learning. Biological Cybernetics, 2001, 84, 183-192.	0.6	19
76	Uncertainty in actionâ€value estimation affects both action choice and learning rate of the choice behaviors of rats. European Journal of Neuroscience, 2012, 35, 1180-1189.	1.2	18
77	Multiple co-clustering based on nonparametric mixture models with heterogeneous marginal distributions. PLoS ONE, 2017, 12, e0186566.	1.1	18
78	Finding intrinsic rewards by embodied evolution and constrained reinforcement learning. Neural Networks, 2008, 21, 1447-1455.	3.3	17
79	Parallel Representation of Value-Based and Finite State-Based Strategies in the Ventral and Dorsal Striatum. PLoS Computational Biology, 2015, 11, e1004540.	1.5	17
80	Evaluation of linearly solvable Markov decision process with dynamic model learning in a mobile robot navigation task. Frontiers in Neurorobotics, 2013, 7, 7.	1.6	16
81	From free energy to expected energy: Improving energy-based value function approximation in reinforcement learning. Neural Networks, 2016, 84, 17-27.	3.3	16
82	Evolution of Neural Architecture Fitting Environmental Dynamics. Adaptive Behavior, 2005, 13, 53-66.	1.1	15
83	Multiple model-based reinforcement learning explains dopamine neuronal activity. Neural Networks, 2007, 20, 668-675.	3.3	15
84	Serotonergic modulation of cognitive computations. Current Opinion in Behavioral Sciences, 2021, 38, 116-123.	2.0	15
85	Switching particle filters for efficient visual tracking. Robotics and Autonomous Systems, 2006, 54, 873-884.	3.0	14
86	Symbolization and imitation learning of motion sequence using competitive modules. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2	0.5	14
87	A Spiking Neural Network Model of Model-Free Reinforcement Learning with High-Dimensional Sensory Input and Perceptual Ambiguity. PLoS ONE, 2015, 10, e0115620.	1.1	14
88	Dimension Reduction of Biological Neuron Models by Artificial Neural Networks. Neural Computation, 1994, 6, 696-717.	1.3	13
89	The Mechanism of Saccade Motor Pattern Generation Investigated by a Large-Scale Spiking Neuron Model of the Superior Colliculus. PLoS ONE, 2013, 8, e57134.	1.1	13
90	Forward and inverse reinforcement learning sharing network weights and hyperparameters. Neural Networks, 2021, 144, 138-153.	3.3	13

#	Article	IF	Citations
91	Reinforcement Learning State Estimator. Neural Computation, 2007, 19, 730-756.	1.3	12
92	A model-based prediction of the calcium responses in the striatal synaptic spines depending on the timing of cortical and dopaminergic inputs and post-synaptic spikes. Frontiers in Computational Neuroscience, 2013, 7, 119.	1.2	12
93	Social impact and governance of AI and neurotechnologies. Neural Networks, 2022, 152, 542-554.	3.3	12
94	Hierarchical reinforcement learning for motion learning: learning 'stand-up' trajectories. Advanced Robotics, 1998, 13, 267-268.	1.1	11
95	A hierarchical Bayesian method to resolve an inverse problem of MEG contaminated with eye movement artifacts. NeuroImage, 2009, 45, 393-409.	2.1	11
96	Neural and Personality Correlates of Individual Differences Related to the Effects of Acute Tryptophan Depletion on Future Reward Evaluation. Neuropsychobiology, 2012, 65, 55-64.	0.9	11
97	Reinforcement learning with state-dependent discount factor. , 2013, , .		11
98	A whole brain probabilistic generative model: Toward realizing cognitive architectures for developmental robots. Neural Networks, 2022, 150, 293-312.	3.3	11
99	Self-organization of action hierarchy and compositionality by reinforcement learning with recurrent neural networks. Neural Networks, 2020, 129, 149-162.	3.3	10
100	How can we learn efficiently to act optimally and flexibly?. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11429-11430.	3.3	9
101	Combining learned controllers to achieve new goals based on linearly solvable MDPs. , 2014, , .		9
102	Online meta-learning by parallel algorithm competition. , 2018, , .		9
103	Title is missing!. Journal of the Robotics Society of Japan, 2001, 19, 551-556.	0.0	9
104	Diffusion functional MRI reveals global brain network functional abnormalities driven by targeted local activity in a neuropsychiatric disease mouse model. NeuroImage, 2020, 223, 117318.	2.1	8
105	Canonical cortical circuits and the duality of Bayesian inference and optimal control. Current Opinion in Behavioral Sciences, 2021, 41, 160-166.	2.0	8
106	Scaled free-energy based reinforcement learning for robust and efficient learning in high-dimensional state spaces. Frontiers in Neurorobotics, 2013, 7, 3.	1.6	8
107	Title is missing!. Journal of the Robotics Society of Japan, 2001, 19, 574-579.	0.0	8
108	Deploying and Optimizing Embodied Simulations of Large-Scale Spiking Neural Networks on HPC Infrastructure. Frontiers in Neuroinformatics, 2022, 16, .	1.3	8

#	Article	IF	Citations
109	Learning how, what, and whether to communicate: emergence of protocommunication in reinforcement learning agents. Artificial Life and Robotics, 2008, 12, 70-74.	0.7	7
110	A computational neural model of goal-directed utterance selection. Neural Networks, 2010, 23, 592-606.	3.3	7
111	Derivatives of Logarithmic Stationary Distributions for Policy Gradient Reinforcement Learning. Neural Computation, 2010, 22, 342-376.	1.3	7
112	Emergence of Polymorphic Mating Strategies in Robot Colonies. PLoS ONE, 2014, 9, e93622.	1.1	7
113	Inverse reinforcement learning using Dynamic Policy Programming. , 2014, , .		7
114	Exciting Time for Neural Networks. Neural Networks, 2015, 61, xv-xvi.	3.3	7
115	EM-based policy hyper parameter exploration: application to standing and balancing of a two-wheeled smartphone robot. Artificial Life and Robotics, 2016, 21, 125-131.	0.7	6
116	Toward evolutionary and developmental intelligence. Current Opinion in Behavioral Sciences, 2019, 29, 91-96.	2.0	6
117	A New Natural Policy Gradient by Stationary Distribution Metric. Lecture Notes in Computer Science, 2008, , 82-97.	1.0	6
118	The Basal Ganglia and the Encoding of Value. , 2009, , 407-416.		6
119	Hierarchical Reinforcement Learning for Multiple Reward Functions. Journal of the Robotics Society of Japan, 2004, 22, 120-129.	0.0	6
120	APPLICATION OF EVOLUTIONARY COMPUTATION FOR EFFICIENT REINFORCEMENT LEARNING. Applied Artificial Intelligence, 2006, 20, 35-55.	2.0	5
121	Condition interference in rats performing a choice task with switched variable- and fixed-reward conditions. Frontiers in Neuroscience, 2015, 9, 27.	1.4	5
122	Fostering deep learning and beyond. Neural Networks, 2018, 97, iii-iv.	3.3	5
123	Robustness of linearly solvable Markov games employing inaccurate dynamics model. Artificial Life and Robotics, 2018, 23, 1-9.	0.7	5
124	Inter-module credit assignment in modular reinforcement learning. Neural Networks, 2003, 16, 985-985.	3.3	4
125	Combining Modalities with Different Latencies for Optimal Motor Control. Journal of Cognitive Neuroscience, 2008, 20, 1966-1979.	1.1	4
126	Expedited review process. Neural Networks, 2012, 25, 1.	3.3	4

#	Article	IF	Citations
127	Faster Turnaround. Neural Networks, 2014, 49, xiv-xv.	3.3	4
128	Natural actor-critic with baseline adjustment for variance reduction. Artificial Life and Robotics, 2008, 13, 275-279.	0.7	3
129	Editorial for 2010. Neural Networks, 2010, 23, 1.	3.3	3
130	An excellent year and a transition. Neural Networks, 2011, 24, 1.	3.3	3
131	Average Reward Optimization with Multiple Discounting Reinforcement Learners. Lecture Notes in Computer Science, 2017, , 789-800.	1.0	3
132	Neural network model of temporal pattern memory. Systems and Computers in Japan, 1991, 22, 61-69.	0.2	2
133	Driver model based on reinforced learning with multiple-step state estimation. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi) Tj ETQq1 1 0.7843 14 rgBT /Overlock	0.1	2
134	Multiple model-based reinforcement learning for nonlinear control. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.1	2
135	Multi-scale, multi-modal neural modeling and simulation. Neural Networks, 2011, 24, 917.	3.3	2
136	The Basal Ganglia, Reinforcement Learning, and the Encoding of Value. , 2014, , 321-333.		2
137	State of Neural Networks Is Strong. Neural Networks, 2016, 73, xiii.	3.3	2
138	Chunking Phenomenon in Complex Sequential Skill Learning in Humans. Lecture Notes in Computer Science, 2004, , 294-299.	1.0	2
139	Humans can adopt optimal discounting strategy under real-time constraints. PLoS Computational Biology, 2005, preprint, e152.	1.5	2
140	Co-evolution of Rewards and Meta-parameters in Embodied Evolution. Lecture Notes in Computer Science, 2009, , 278-302.	1.0	2
141	Estimating Internal Variables of a Decision Makerâ€™s Brain: A Model-Based Approach for Neuroscience. Lecture Notes in Computer Science, 2007, , 596-603.	1.0	2
142	Activity of serotonergic neurons in the dorsal raphe nucleus of freely moving rats during reward and non-reward delay period. Neuroscience Research, 2007, 58, S169.	1.0	1
143	Hierarchical information coding in the striatum during decision making tasks. Neuroscience Research, 2010, 68, e187.	1.0	1
144	Computation of Driving Pleasure based on Driver's Learning Process Simulation by Reinforcement Learning. , 0, , .		1

#	Article	IF	Citations
145	Inter Subject Correlation of Brain Activity during Visuo-Motor Sequence Learning. Lecture Notes in Computer Science, 2014, , 35-41.	1.0	1
146	Promoting Further Developments of Neural Networks. Neural Networks, 2017, 85, xiii.	3.3	1
147	NeuroEvolution Based on Reusable and Hierarchical Modular Representation. Lecture Notes in Computer Science, 2009, , 22-31.	1.0	1
148	Cognitive Robotics. Robotics and the brain sciences.. Journal of the Robotics Society of Japan, 1999, 17, 7-10.	0.0	1
149	A Spiking Neural Network Builder for Systematic Data-to-Model Workflow. Frontiers in Neuroinformatics, 0, 16, .	1.3	1
150	ESTIMATING INTENTION OF OTHERS FOR IMITATION AND COOPERATION. , 2005, , .		0
151	S3f2-5 Learning model-based analysis of neuroimaging data(S3-f2: "Advances in Anatomical, Functional,) Tj ETQq1 1 0.784314 rgBT /Ov Seibutsu Butsuri, 2006, 46, S146.	0.0	0
152	In pursuit of the brain mechanism of reinforcement learning. Neuroscience Research, 2007, 58, S2.	1.0	0
153	Selective impairment of reward-based adaptive choice of actions by intra-striatal injection of dopamine D1 receptor antagonist. Neuroscience Research, 2007, 58, S114.	1.0	0
154	Designing the Reward System: Computational and Biological Principles. , 2007, , .		0
155	Learning a dynamic policy by using policy gradient: application to biped walking. Systems and Computers in Japan, 2007, 38, 25-38.	0.2	0
156	Mini-special issue: ICONIP 2007. Neural Networks, 2008, 21, 1419.	3.3	0
157	Different representation of action and reward in the dorsal and the ventral striatum. Neuroscience Research, 2009, 65, S110-S111.	1.0	0
158	Brain mechanisms for evaluating probabilistic and delayed rewards. Neuroscience Research, 2009, 65, S239.	1.0	0
159	Model-free and model-based strategies in ratsâ€™ choice behaviors. Neuroscience Research, 2009, 65, S233.	1.0	0
160	Electrophysiological and molecular mechanisms of synaptic plasticity in the striatum. Neuroscience Research, 2010, 68, e346.	1.0	0
161	Neural activity in the dorsal striatum during cognitive decision making. Neuroscience Research, 2010, 68, e299.	1.0	0
162	Model-free and model-based strategy for ratsâ€™ action selection. Neuroscience Research, 2010, 68, e186-e187.	1.0	0

#	Article	IF	Citations
163	Neuronal coding of value-based and finite state-based decision strategies in the dorsal and ventral striatum. Neuroscience Research, 2011, 71, e272.	1.0	0
164	Evolution of rewards and learning mechanisms in Cyber Rodents. , 0, , 109-128.		0
165	Chunking During Learning of Visuomotor Sequences with Spatial and Arbitrary Rules: Preliminary Findings. Psychological Studies, 2012, 57, 22-28.	0.5	0
166	Derivation of integrated state equation for combined outputs-inputs vector of discrete-time linear time-invariant system and its application to reinforcement learning. , 2017, , .		0
167	Effects of transcranial direct current stimulation in brain-computer interface. , 2021, , .		0
168	ã,µã,ãƒãƒ¼ãƒƒãƒ¼ãƒ‡ãƒ³ãƒˆãƒ—ãƒã,ã,§ã,¯ãƒˆ. The Brain & Neural Networks, 2007, 14, 293-304.	0.1	0
169	Emergence of Different Mating Strategies in Artificial Embodied Evolution. Lecture Notes in Computer Science, 2009, , 638-647.	1.0	0
170	Calcium Responses Model in Striatum Dependent on Timed Input Sources. Lecture Notes in Computer Science, 2009, , 249-258.	1.0	0
171	An Experimental Study of Emergence of Communication of Reinforcement Learning Agents. Lecture Notes in Computer Science, 2019, , 91-100.	1.0	0
172	Finding Exploratory Rewards by Embodied Evolution and Constrained Reinforcement Learning in the Cyber Rodents. Lecture Notes in Computer Science, 2007, , 167-176.	1.0	0
173	Special issue on Symbol Emergence in Robotics and Cognitive Systems (I). Advanced Robotics, 2022, 36, 1-2.	1.1	0
174	Special issue on symbol emergence in robotics and cognitive systems (II). Advanced Robotics, 2022, 36, 217-218.	1.1	0