

Dongbin Zhao

List of Publications by Year in descending order

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155
papers

5,019
citations

101543
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158
all docs

158
docs citations

158
times ranked

3088
citing authors

#	ARTICLE	IF	CITATIONS
1	Vision-based control in the open racing car simulator with deep and reinforcement learning. Journal of Ambient Intelligence and Humanized Computing, 2023, 14, 15673-15685.	4.9	9
2	Enhanced Rolling Horizon Evolution Algorithm With Opponent Model Learning: Results for the Fighting Game AI Competition. IEEE Transactions on Games, 2023, 15, 5-15.	1.4	12
3	UNMAS: Multiagent Reinforcement Learning for Unshaped Cooperative Scenarios. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 2093-2104.	11.3	12
4	Event-Triggered Communication Network With Limited-Bandwidth Constraint for Multi-Agent Reinforcement Learning. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 3966-3978.	11.3	14
5	Empirical Policy Optimization for n -Player Markov Games. IEEE Transactions on Cybernetics, 2023, 53, 6443-6455.	9.5	5
6	Multi-task safe reinforcement learning for navigating intersections in dense traffic. Journal of the Franklin Institute, 2023, 360, 13737-13760.	3.4	7
7	BiFNet: Bidirectional Fusion Network for Road Segmentation. IEEE Transactions on Cybernetics, 2022, 52, 8617-8628.	9.5	8
8	ModuleNet: Knowledge-Inherited Neural Architecture Search. IEEE Transactions on Cybernetics, 2022, 52, 11661-11671.	9.5	13
9	BNAS: Efficient Neural Architecture Search Using Broad Scalable Architecture. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 5004-5018.	11.3	23
10	Heuristic rank selection with progressively searching tensor ring network. Complex & Intelligent Systems, 2022, 8, 771-785.	6.5	11
11	Online Minimax Q Network Learning for Two-Player Zero-Sum Markov Games. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 1228-1241.	11.3	29
12	Boost 3-D Object Detection via Point Clouds Segmentation and Fused 3-D GloU-Loss. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 762-773.	11.3	13
13	Missile guidance with assisted deep reinforcement learning for head-on interception of maneuvering target. Complex & Intelligent Systems, 2022, 8, 1205-1216.	6.5	9
14	Highway Lane Change Decision-Making via Attention-Based Deep Reinforcement Learning. IEEE/CAA Journal of Automatica Sinica, 2022, 9, 567-569.	13.1	30
15	BNAS-v2: Memory-Efficient and Performance-Collapse-Prevented Broad Neural Architecture Search. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 6259-6272.	9.3	9
16	CNN-G: Convolutional Neural Network Combined With Graph for Image Segmentation With Theoretical Analysis. IEEE Transactions on Cognitive and Developmental Systems, 2021, 13, 631-644.	3.8	35
17	Optimal Feedback Control of Pedestrian Flow in Heterogeneous Corridors. IEEE Transactions on Automation Science and Engineering, 2021, 18, 1097-1108.	5.2	7
18	MGRl: Graph neural network based inference in a Markov network with reinforcement learning for visual navigation. Neurocomputing, 2021, 421, 140-150.	5.9	17

#	ARTICLE	IF	CITATIONS
19	Benchmarking Lane-changing Decision-making for Deep Reinforcement Learning. , 2021, , .		0
20	EGCN: Ensemble Graph Convolutional Network for Neural Architecture Performance Prediction. , 2021, , .		0
21	Moving Target Shooting Control Policy Based on Deep Reinforcement Learning. , 2021, , .		0
22	Learning Representation with Q-irrelevance Abstraction for Reinforcement Learning. , 2021, , .		1
23	A Reinforcement Learning Benchmark for Autonomous Driving in Intersection Scenarios. , 2021, , .		6
24	Invariant Adaptive Dynamic Programming for Discrete-Time Optimal Control. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 3959-3971.	9.3	30
25	Deep Reinforcement Learning-Based Automatic Exploration for Navigation in Unknown Environment. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 2064-2076.	11.3	107
26	LMI-Based Synthesis of String-Stable Controller for Cooperative Adaptive Cruise Control. IEEE Transactions on Intelligent Transportation Systems, 2020, 21, 4516-4525.	8.0	20
27	Hierarchical optimal control for input-affine nonlinear systems through the formulation of Stackelberg game. Information Sciences, 2020, 517, 1-17.	6.9	24
28	Cooperative Multi-Agent Deep Reinforcement Learning with Counterfactual Reward. , 2020, , .		2
29	An Improved Minimax-Q Algorithm Based on Generalized Policy Iteration to Solve a Chaser-Invader Game. , 2020, , .		2
30	RailNet: An Information Aggregation Network for Rail Track Segmentation. , 2020, , .		6
31	Shift-Invariant Convolutional Network Search. , 2020, , .		7
32	Synthesis of Cooperative Adaptive Cruise Control With Feedforward Strategies. IEEE Transactions on Vehicular Technology, 2020, 69, 3615-3627.	6.3	13
33	Artificial intelligence in tongue diagnosis: Using deep convolutional neural network for recognizing unhealthy tongue with tooth-mark. Computational and Structural Biotechnology Journal, 2020, 18, 973-980.	4.1	56
34	Device Placement Optimization for Deep Neural Networks via One-shot Model and Reinforcement Learning. , 2020, , .		0
35	ContourRend: A Segmentation Method for Improving Contours by Rendering. Lecture Notes in Computer Science, 2020, , 251-260.	1.3	1
36	StarCraft Micromanagement With Reinforcement Learning and Curriculum Transfer Learning. IEEE Transactions on Emerging Topics in Computational Intelligence, 2019, 3, 73-84.	4.9	101

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37	Data-Based Reinforcement Learning for Nonzero-Sum Games With Unknown Drift Dynamics. IEEE Transactions on Cybernetics, 2019, 49, 2874-2885.	9.5	78
38	Control-Limited Adaptive Dynamic Programming for Multi-Battery Energy Storage Systems. IEEE Transactions on Smart Grid, 2019, 10, 4235-4244.	9.0	53
39	Auto-encoder based Graph Convolutional Networks for Online Financial Anti-fraud. , 2019, , .		5
40	Graph-FCN for Image Semantic Segmentation. Lecture Notes in Computer Science, 2019, , 97-105.	1.3	56
41	An Efficient Network for Lane Segmentation. Communications in Computer and Information Science, 2019, , 177-185.	0.5	0
42	Reinforcement Learning and Deep Learning Based Lateral Control for Autonomous Driving [Application Notes]. IEEE Computational Intelligence Magazine, 2019, 14, 83-98.	3.2	100
43	Comparison of Control Methods Based on Imitation Learning for Autonomous Driving. , 2019, , .		1
44	Simplified Space Based Neural Architecture Search. , 2019, , .		4
45	Reinforcement Learning based Lane Change Decision-Making with Imaginary Sampling. , 2019, , .		5
46	Multi-Objective Neural Architecture Search for Light-Weight Model. , 2019, , .		3
47	Multi-Agent Reinforcement Learning Based on Clustering in Two-Player Games. , 2019, , .		3
48	Optimal Pedestrian Evacuation in Building with Consecutive Differential Dynamic Programming. , 2019, , .		1
49	Model-Free Reinforcement Learning based Lateral Control for Lane Keeping. , 2019, , .		7
50	Deep Kalman Filter with Optical Flow for Multiple Object Tracking. , 2019, , .		9
51	Deep sparse representation-based mid-level visual elements discovery in fine-grained classification. Soft Computing, 2019, 23, 8711-8722.	3.6	5
52	Adaptive Optimal Control of Heterogeneous CACC System With Uncertain Dynamics. IEEE Transactions on Control Systems Technology, 2019, 27, 1772-1779.	5.2	78
53	Adaptive cruise control via adaptive dynamic programming with experience replay. Soft Computing, 2019, 23, 4131-4144.	3.6	9
54	Special Issue on Deep Reinforcement Learning and Adaptive Dynamic Programming. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 2038-2041.	11.3	18

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55	Event-Based Robust Control for Uncertain Nonlinear Systems Using Adaptive Dynamic Programming. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 37-50.	11.3	155
56	Policy Iteration for H_∞ Optimal Control of Polynomial Nonlinear Systems via Sum of Squares Programming. IEEE Transactions on Cybernetics, 2018, 48, 500-509.	9.5	57
57	A pdf-Free Change Detection Test Based on Density Difference Estimation. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 324-334.	11.3	38
58	Comprehensive comparison of online ADP algorithms for continuous-time optimal control. Artificial Intelligence Review, 2018, 49, 531-547.	15.7	66
59	Multi-task learning for dangerous object detection in autonomous driving. Information Sciences, 2018, 432, 559-571.	6.9	103
60	Hybrid Deep Learning Based Moving Object Detection via Motion prediction. , 2018, , .		7
61	Overview of Image Segmentation and Its Application on Free Space Detection. , 2018, , .		7
62	Learning Battles in ViZDoom via Deep Reinforcement Learning. , 2018, , .		22
63	An Autonomous Driving Experience Platform with Learning-Based Functions. , 2018, , .		2
64	Visual Navigation with Actor-Critic Deep Reinforcement Learning. , 2018, , .		6
65	Model-Free Reinforcement Learning for Fully Cooperative Multi-Agent Graphical Games. , 2018, , .		12
66	A temporal-based deep learning method for multiple objects detection in autonomous driving. , 2018, , .		9
67	Driving Control with Deep and Reinforcement Learning in The Open Racing Car Simulator. Lecture Notes in Computer Science, 2018, , 326-334.	1.3	5
68	Value Iteration Algorithm for Optimal Consensus Control of Multi-agent Systems. Lecture Notes in Computer Science, 2018, , 200-208.	1.3	1
69	A Gradient-Based Reinforcement Learning Algorithm for Multiple Cooperative Agents. IEEE Access, 2018, 6, 70223-70235.	4.2	8
70	DeepSign: Deep Learning based Traffic Sign Recognition. , 2018, , .		17
71	Reinforcement Learning for Build-Order Production in StarCraft II. , 2018, , .		12
72	Iterative Adaptive Dynamic Programming for Solving Unknown Nonlinear Zero-Sum Game Based on Online Data. IEEE Transactions on Neural Networks and Learning Systems, 2017, 28, 714-725.	11.3	95

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73	FMRQ—A Multiagent Reinforcement Learning Algorithm for Fully Cooperative Tasks. IEEE Transactions on Cybernetics, 2017, 47, 1367-1379.	9.5	60
74	Event-Triggered H_∞ Control for Continuous-Time Nonlinear System via Concurrent Learning. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2017, 47, 1071-1081.	9.3	182
75	Data-driven adaptive dynamic programming for continuous-time fully cooperative games with partially constrained inputs. Neurocomputing, 2017, 238, 377-386.	5.9	57
76	An Incremental Change Detection Test Based on Density Difference Estimation. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2017, 47, 2714-2726.	9.3	16
77	Model-Free Optimal Control Based Intelligent Cruise Control with Hardware-in-the-Loop Demonstration [Research Frontier]. IEEE Computational Intelligence Magazine, 2017, 12, 56-69.	3.2	39
78	Event-Triggered Optimal Control for Partially Unknown Constrained-Input Systems via Adaptive Dynamic Programming. IEEE Transactions on Industrial Electronics, 2017, 64, 4101-4109.	7.9	170
79	FMR-GA — A Cooperative Multi-agent Reinforcement Learning Algorithm Based on Gradient Ascent. Lecture Notes in Computer Science, 2017, , 840-848.	1.3	4
80	Policy gradient methods with Gaussian process modelling acceleration. , 2017, , .		2
81	Deep Reinforcement Learning With Visual Attention for Vehicle Classification. IEEE Transactions on Cognitive and Developmental Systems, 2017, 9, 356-367.	3.8	143
82	A Semi-Supervised Predictive Sparse Decomposition Based on Task-Driven Dictionary Learning. Cognitive Computation, 2017, 9, 115-124.	5.2	15
83	A Kolmogorov-Smirnov Test to Detect Changes in Stationarity in Big Data * *This work was supported in part by the National Natural Science Foundation of China under Grants No. 61573353, No.61533017, and No. 61603382.. IFAC-PapersOnLine, 2017, 50, 14260-14265.	0.9	12
84	Cooperative reinforcement learning for multiple units combat in starCraft. , 2017, , .		17
85	Event-triggered integral reinforcement learning for nonlinear continuous-time systems. , 2017, , .		3
86	Multi-task Learning with Cartesian Product-Based Multi-objective Combination for Dangerous Object Detection. Lecture Notes in Computer Science, 2017, , 28-35.	1.3	6
87	Off-Policy Reinforcement Learning for Partially Unknown Nonzero-Sum Games. Lecture Notes in Computer Science, 2017, , 822-830.	1.3	0
88	Image clustering based on deep sparse representations. , 2016, , .		2
89	Deep reinforcement learning with experience replay based on SARSA. , 2016, , .		62
90	ADP with MCTS algorithm for Gomoku. , 2016, , .		7

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91	A general adaptive dynamic programming approach with experience replay. , 2016, , .		2
92	Model-free reinforcement learning for nonlinear zero-sum games with simultaneous explorations. , 2016, , .		1
93	Ensemble LSDD-based change detection tests. , 2016, , .		2
94	Move prediction in Gomoku using deep learning. , 2016, , .		9
95	Online reinforcement learning control by Bayesian inference. IET Control Theory and Applications, 2016, 10, 1331-1338.	2.1	5
96	Coordinated control strategy of wind/battery energy storage system hybrid power output based on adaptive dynamic programming. , 2016, , .		1
97	A visual attention based convolutional neural network for image classification. , 2016, , .		16
98	Using reinforcement learning techniques to solve continuous-time nonlinear optimal tracking problem without system dynamics. IET Control Theory and Applications, 2016, 10, 1339-1347.	2.1	70
99	Convolutional fitted Q iteration for vision-based control problems. , 2016, , .		4
100	A perturbed Gaussian process regression with chunk sparsification for tracking non-stationary systems. , 2016, , .		0
101	Experience Replay for Optimal Control of Nonzero-Sum Game Systems With Unknown Dynamics. IEEE Transactions on Cybernetics, 2016, 46, 854-865.	9.5	184
102	Fuzzy-Based Goal Representation Adaptive Dynamic Programming. IEEE Transactions on Fuzzy Systems, 2016, 24, 1159-1175.	9.8	43
103	Data-Based Adaptive Critic Designs for Nonlinear Robust Optimal Control With Uncertain Dynamics. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2016, 46, 1544-1555.	9.3	180
104	Thermal comfort control based on MEC algorithm for HVAC systems. , 2015, , .		1
105	Online reinforcement learning by Bayesian inference. , 2015, , .		8
106	Model-free adaptive algorithm for optimal control of continuous-time nonlinear system. , 2015, , .		0
107	Online Synchronous Policy Iteration based on Concurrent Learning to solve continuous-time optimal control problem. , 2015, , .		0
108	A Pdf-Free Change Detection Test for Data Streams Monitoring. , 2015, , .		2

#	ARTICLE	IF	CITATIONS
109	Design and implementation of an adaptive cruise control system based on supervised actor-critic learning. , 2015, , .		10
110	Consensus of heterogeneous multi-agent systems with switching topologies using input-output feedback linearization. , 2015, , .		0
111	Model-Free Optimal Control for Affine Nonlinear Systems With Convergence Analysis. IEEE Transactions on Automation Science and Engineering, 2015, 12, 1461-1468.	5.2	70
112	MECâ€™A Near-Optimal Online Reinforcement Learning Algorithm for Continuous Deterministic Systems. IEEE Transactions on Neural Networks and Learning Systems, 2015, 26, 346-356.	11.3	71
113	GrDHP: A General Utility Function Representation for Dual Heuristic Dynamic Programming. IEEE Transactions on Neural Networks and Learning Systems, 2015, 26, 614-627.	11.3	78
114	A data-based online reinforcement learning algorithm satisfying probably approximately correct principle. Neural Computing and Applications, 2015, 26, 775-787.	5.6	13
115	Convergence Proof of Approximate Policy Iteration for Undiscounted Optimal Control of Discrete-Time Systems. Cognitive Computation, 2015, 7, 763-771.	5.2	4
116	Convergence analysis and application of fuzzy-HDP for nonlinear discrete-time HJB systems. Neurocomputing, 2015, 149, 124-131.	5.9	18
117	Event-triggered reinforcement learning approach for unknown nonlinear continuous-time system. , 2014, , .		42
118	Cheating behavior detection based-on pictorial structure model. , 2014, , .		2
119	Clique-based cooperative multiagent reinforcement learning using factor graphs. IEEE/CAA Journal of Automatica Sinica, 2014, 1, 248-256.	13.1	9
120	A Kalman filter-based actor-critic learning approach. , 2014, , .		1
121	Dual Heuristic dynamic Programming for nonlinear discrete-time uncertain systems with state delay. Neurocomputing, 2014, 134, 222-229.	5.9	38
122	Full-range adaptive cruise control based on supervised adaptive dynamic programming. Neurocomputing, 2014, 125, 57-67.	5.9	81
123	Model-free Adaptive Dynamic Programming for Optimal Control of Discrete-time Affine Nonlinear System. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 7049-7054.	0.4	0
124	A data-based online reinforcement learning algorithm with high-efficient exploration. , 2014, , .		1
125	An high-efficient online reinforcement learning algorithm for continuous-state systems. , 2014, , .		0
126	Data-based control, optimization, modeling and applications. Neural Computing and Applications, 2013, 23, 1839-1842.	5.6	0

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127	Special issue on intelligent control and information processing. Soft Computing, 2013, 17, 1967-1969.	3.6	0
128	A supervised Actor-Critic approach for adaptive cruise control. Soft Computing, 2013, 17, 2089-2099.	3.6	69
129	A neural-network-based iterative GDHP approach for solving a class of nonlinear optimal control problems with control constraints. Neural Computing and Applications, 2013, 22, 219-227.	5.6	30
130	Neural sliding-mode load frequency controller design of power systems. Neural Computing and Applications, 2013, 22, 279-286.	5.6	20
131	Cooperative multiagent reinforcement learning using factor graphs. , 2013, , .		1
132	How to Automatically Set an Initial Angle for Balance Control of a Cart-Pole System: An Education Case. International Journal of Electrical Engineering and Education, 2013, 50, 57-68.	0.8	1
133	Online Model-Free RLSP Algorithm for Nonlinear Discrete-Time Non-affine Systems. Lecture Notes in Computer Science, 2013, , 242-249.	1.3	1
134	Neural-Network-Based Optimal Control for a Class of Unknown Discrete-Time Nonlinear Systems Using Globalized Dual Heuristic Programming. IEEE Transactions on Automation Science and Engineering, 2012, 9, 628-634.	5.2	145
135	Computational Intelligence in Urban Traffic Signal Control: A Survey. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2012, 42, 485-494.	2.9	213
136	Integration of fuzzy controller with adaptive dynamic programming. , 2012, , .		8
137	Neural and fuzzy dynamic programming for under-actuated systems. , 2012, , .		6
138	Reinforcement learning control based on multi-goal representation using hierarchical heuristic dynamic programming. , 2012, , .		20
139	Data-driven learning and control with multiple critic networks. , 2012, , .		5
140	Optimal control of unknown nonaffine nonlinear discrete-time systems based on adaptive dynamic programming. Automatica, 2012, 48, 1825-1832.	5.0	354
141	The Optimal Control of Discrete-Time Delay Nonlinear System with Dual Heuristic Dynamic Programming. Lecture Notes in Computer Science, 2012, , 664-672.	1.3	1
142	Self-teaching adaptive dynamic programming for Gomoku. Neurocomputing, 2012, 78, 23-29.	5.9	34
143	Neural network based online traffic signal controller design with reinforcement training. , 2011, , .		17
144	DHP Method for Ramp Metering of Freeway Traffic. IEEE Transactions on Intelligent Transportation Systems, 2011, 12, 990-999.	8.0	49

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145	Control of Overhead Crane Systems by Combining Sliding Mode with Fuzzy Regulator. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 9320-9325.	0.4	19
146	Adaptive Integrated Control for Omnidirectional Mobile Manipulators Based on Neural-Network. , 2011, , 310-325.		0
147	Coordinated multiple ramps metering based on neuro-fuzzy adaptive dynamic programming. , 2009, , .		6
148	Trajectory Tracking Control of Omnidirectional Wheeled Mobile Manipulators: Robust Neural Network-Based Sliding Mode Approach. IEEE Transactions on Systems, Man, and Cybernetics, 2009, 39, 788-799.	5.0	133
149	Adaptive Integrated Control for Omnidirectional Mobile Manipulators Based on Neural-Network. International Journal of Cognitive Informatics and Natural Intelligence, 2009, 3, 34-53.	0.4	5
150	Adaptive hybrid control for omnidirectional mobile manipulators using neural-network. , 2008, , .		1
151	Control of a class of under-actuated systems with saturation using hierarchical sliding mode. , 2008, , .		6
152	Particle Swarn Optimized Adaptive Dynamic Programming. , 2007, , .		16
153	Improved mean shift segmentation approach for natural images. Applied Mathematics and Computation, 2007, 185, 940-952.	2.2	19
154	A computed torque controller for uncertain robotic manipulator systems: Fuzzy approach. Fuzzy Sets and Systems, 2005, 154, 208-226.	2.7	137
155	Adaptive sliding mode fuzzy control for a two-dimensional overhead crane. Mechatronics, 2005, 15, 505-522.	3.3	222