

Kyriakos G Vamvoudakis

List of Publications by Year in descending order

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Version: 2024-02-01

114
papers

6,198
citations

185998

28
h-index

161609

54
g-index

116
all docs

116
docs citations

116
times ranked

2476
citing authors

#	ARTICLE	IF	CITATIONS
1	Online actor-critic algorithm to solve the continuous-time infinite horizon optimal control problem. <i>Automatica</i> , 2010, 46, 878-888.	3.0	1,153
2	Reinforcement Learning and Feedback Control: Using Natural Decision Methods to Design Optimal Adaptive Controllers. <i>IEEE Control Systems</i> , 2012, 32, 76-105.	1.0	730
3	Optimal and Autonomous Control Using Reinforcement Learning: A Survey. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2018, 29, 2042-2062.	7.2	512
4	Multi-agent differential graphical games: Online adaptive learning solution for synchronization with optimality. <i>Automatica</i> , 2012, 48, 1598-1611.	3.0	405
5	Reinforcement Learning for Partially Observable Dynamic Processes: Adaptive Dynamic Programming Using Measured Output Data. <i>IEEE Transactions on Systems, Man, and Cybernetics</i> , 2011, 41, 14-25.	5.5	391
6	Multi-player non-zero-sum games: Online adaptive learning solution of coupled Hamilton-Jacobi equations. <i>Automatica</i> , 2011, 47, 1556-1569.	3.0	390
7	Event-triggered optimal adaptive control algorithm for continuous-time nonlinear systems. <i>IEEE/CAA Journal of Automatica Sinica</i> , 2014, 1, 282-293.	8.5	216
8	Multi-agent discrete-time graphical games and reinforcement learning solutions. <i>Automatica</i> , 2014, 50, 3038-3053.	3.0	206
9	Online solution of nonlinear two-player zero-sum games using synchronous policy iteration. <i>International Journal of Robust and Nonlinear Control</i> , 2012, 22, 1460-1483.	2.1	161
10	Q-learning for continuous-time linear systems: A model-free infinite horizon optimal control approach. <i>Systems and Control Letters</i> , 2017, 100, 14-20.	1.3	159
11	Asymptotically Stable Adaptive Optimal Control Algorithm With Saturating Actuators and Relaxed Persistence of Excitation. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2016, 27, 2386-2398.	7.2	127
12	Multi-agent zero-sum differential graphical games for disturbance rejection in distributed control. <i>Automatica</i> , 2016, 69, 24-34.	3.0	125
13	Online adaptive algorithm for optimal control with integral reinforcement learning. <i>International Journal of Robust and Nonlinear Control</i> , 2014, 24, 2686-2710.	2.1	113
14	Event-triggered optimal tracking control of nonlinear systems. <i>International Journal of Robust and Nonlinear Control</i> , 2017, 27, 598-619.	2.1	111
15	Model-free event-triggered control algorithm for continuous-time linear systems with optimal performance. <i>Automatica</i> , 2018, 87, 412-420.	3.0	96
16	Detection in Adversarial Environments. <i>IEEE Transactions on Automatic Control</i> , 2014, 59, 3209-3223.	3.6	83
17	Non-zero sum Nash Q-learning for unknown deterministic continuous-time linear systems. <i>Automatica</i> , 2015, 61, 274-281.	3.0	66
18	Safe reinforcement learning for dynamical games. <i>International Journal of Robust and Nonlinear Control</i> , 2020, 30, 3706-3726.	2.1	64

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19	Hamiltonian-Driven Hybrid Adaptive Dynamic Programming. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 6423-6434.	5.9	60
20	A Moving Target Defense Control Framework for Cyber-Physical Systems. IEEE Transactions on Automatic Control, 2020, 65, 1029-1043.	3.6	58
21	Safe Intermittent Reinforcement Learning With Static and Dynamic Event Generators. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 5441-5455.	7.2	56
22	Hamiltonian-Driven Adaptive Dynamic Programming With Approximation Errors. IEEE Transactions on Cybernetics, 2022, 52, 13762-13773.	6.2	51
23	Kinodynamic Motion Planning With Continuous-Time Q-Learning: An Online, Model-Free, and Safe Navigation Framework. IEEE Transactions on Neural Networks and Learning Systems, 2019, 30, 3803-3817.	7.2	49
24	Dynamic Intermittent Feedback Design for H_{∞} Containment Control on a Directed Graph. IEEE Transactions on Cybernetics, 2020, 50, 3752-3765.	6.2	46
25	A Secure Control Learning Framework for Cyber-Physical Systems Under Sensor and Actuator Attacks. IEEE Transactions on Cybernetics, 2021, 51, 4648-4660.	6.2	43
26	Dynamic intermittent Q -learning-based model-free suboptimal co-design of stabilization. International Journal of Robust and Nonlinear Control, 2019, 29, 2673-2694.	2.1	34
27	Adaptive backstepping optimal control of a fractional-order chaotic magnetic-field electromechanical transducer. Nonlinear Dynamics, 2020, 100, 523-540.	2.7	33
28	Cooperative Q-Learning for Rejection of Persistent Adversarial Inputs in Networked Linear Quadratic Systems. IEEE Transactions on Automatic Control, 2018, 63, 1018-1031.	3.6	31
29	Autonomy and machine intelligence in complex systems: A tutorial. , 2015, , .		29
30	A data-based private learning framework for enhanced security against replay attacks in cyber-physical systems. International Journal of Robust and Nonlinear Control, 2021, 31, 1817-1833.	2.1	29
31	Safety-Aware Reinforcement Learning Framework with an Actor-Critic-Barrier Structure. , 2019, , .		28
32	Q -learning for continuous-time graphical games on large networks with completely unknown linear system dynamics. International Journal of Robust and Nonlinear Control, 2017, 27, 2900-2920.	2.1	27
33	Simultaneous dynamic system estimation and optimal control of vehicle active suspension. Vehicle System Dynamics, 2019, 57, 1467-1493.	2.2	26
34	Distributed output-feedback model predictive control for multi-agent consensus. Systems and Control Letters, 2019, 127, 52-59.	1.3	25
35	Non-equilibrium dynamic games and cyber-physical security: A cognitive hierarchy approach. Systems and Control Letters, 2019, 125, 59-66.	1.3	23
36	An adaptive learning and control architecture for mitigating sensor and actuator attacks in connected autonomous vehicle platoons. International Journal of Adaptive Control and Signal Processing, 2019, 33, 1788-1802.	2.3	21

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37	An Adaptive Actuation Mechanism for Anthropomorphic Robot Hands. <i>Frontiers in Robotics and AI</i> , 2019, 6, 47.	2.0	19
38	Optimal adaptive control for unknown systems using output feedback by reinforcement learning methods. , 2010, , .		18
39	Enforcing Signal Temporal Logic Specifications in Multi-Agent Adversarial Environments: A Deep Q-Learning Approach. , 2018, , .		18
40	Optimal distributed learning for disturbance rejection in networked non-linear games under unknown dynamics. <i>IET Control Theory and Applications</i> , 2019, 13, 2838-2848.	1.2	18
41	Distributed learning algorithm for non-linear differential graphical games. <i>Transactions of the Institute of Measurement and Control</i> , 2017, 39, 173-182.	1.1	16
42	Open-loop Stackelberg learning solution for hierarchical control problems. <i>International Journal of Adaptive Control and Signal Processing</i> , 2019, 33, 285-299.	2.3	16
43	Online Optimal Operation of Parallel Voltage-Source Inverters Using Partial Information. <i>IEEE Transactions on Industrial Electronics</i> , 2017, 64, 4296-4305.	5.2	15
44	Online adaptive learning of optimal control solutions using integral reinforcement learning. , 2011, , .		13
45	Data-enabled extremum seeking: A cooperative concurrent learning-based approach. <i>International Journal of Adaptive Control and Signal Processing</i> , 2021, 35, 1256-1284.	2.3	13
46	Non-zero sum games: Online learning solution of coupled Hamilton-Jacobi and coupled Riccati equations. , 2011, , .		12
47	Deep-Learning Tracking for Autonomous Flying Systems Under Adversarial Inputs. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , 2020, 56, 1444-1459.	2.6	12
48	Safe Approximate Dynamic Programming via Kernelized Lipschitz Estimation. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2021, 32, 405-419.	7.2	12
49	Adaptive Control for Mitigating Sensor and Actuator Attacks in Connected Autonomous Vehicle Platoons. , 2018, , .		11
50	Policy iteration algorithm for distributed networks and graphical games. , 2011, , .		10
51	An online actor/critic algorithm for event-triggered optimal control of continuous-time nonlinear systems. , 2014, , .		10
52	Continuous-Time Safe Learning with Temporal Logic Constraints in Adversarial Environments. , 2020, , .		10
53	Event-triggered H-infinity control for unknown continuous-time linear systems using Q-learning. , 2016, , .		9
54	Robust event-triggered output feedback learning algorithm for voltage source inverters with unknown load and parameter variations. <i>International Journal of Robust and Nonlinear Control</i> , 2019, 29, 3502-3517.	2.1	9

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55	An Adaptive, Humanlike Robot Hand with Selective Interdigitation: Towards Robust Grasping and Dexterous, In-Hand Manipulation. , 2019, , .		9
56	Data-based and secure switched cyber-physical systems. Systems and Control Letters, 2021, 148, 104826.	1.3	9
57	Distributed optimal synchronization control of linear networked systems under unknown dynamics. , 2017, , .		8
58	Online adaptive learning for team strategies in multi-agent systems. Journal of Defense Modeling and Simulation, 2012, 9, 59-69.	1.2	7
59	A neuro-adaptive architecture for extremum seeking control using hybrid learning dynamics. , 2017, , .		7
60	Adaptive optimal observer design via approximate dynamic programming. , 2017, , .		7
61	Game-Theory-Based Consensus Learning of Double-Integrator Agents in the Presence of Worst-Case Adversaries. Journal of Optimization Theory and Applications, 2018, 177, 222-253.	0.8	7
62	Model-Free Event-Triggered Containment Control of Multi-Agent Systems. , 2018, , .		7
63	A Secure Control Learning Framework for Cyber-Physical Systems under Sensor Attacks. , 2019, , .		7
64	Online optimal switching of single phase DC/AC inverters using partial information. , 2014, , .		6
65	Bounded Rational Unmanned Aerial Vehicle Coordination for Adversarial Target Tracking. , 2020, , .		6
66	Safe Intermittent Reinforcement Learning for Nonlinear Systems. , 2019, , .		5
67	Robust Kinodynamic Motion Planning using Model-Free Game-Theoretic Learning. , 2019, , .		5
68	Constrained Differential Games for Secure Decision-Making Against Stealthy Attacks. , 2020, , .		5
69	Online, Model-Free Motion Planning in Dynamic Environments: An Intermittent, Finite Horizon Approach with Continuous-Time Q-Learning. , 2020, , .		5
70	Learning consensus in adversarial environments. , 2013, , .		4
71	A Compliant, Underactuated Finger for Anthropomorphic Hands. , 2019, 2019, 682-688.		4
72	Decentralized Verification for Dissipativity of Cascade Interconnected Systems. , 2019, , .		4

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73	On-Off Adversarially Robust Q-Learning. , 2020, 4, 749-754.		4
74	Detection of actuator faults for continuous-time systems with intermittent state feedback. Systems and Control Letters, 2021, 152, 104938.	1.3	4
75	Experimental Design and Control of a Smart Morphing Wing System using a Q-learning Framework. , 2021, , .		4
76	Nonequilibrium dynamical games: A control systems perspective. Annual Reviews in Control, 2022, 53, 6-18.	4.4	4
77	Entropy-Based Proactive and Reactive Cyber-Physical Security. Advances in Information Security, 2019, , 59-83.	0.9	3
78	An Intermittent Learning Algorithm for High-Speed Autonomous Driving in Unknown Environments. , 2019, , .		3
79	Switching for Unpredictability: A Proactive Defense Control Approach. , 2019, , .		3
80	Neural-Adaptive Stochastic Attitude Filter on SO(3). , 2022, 6, 1549-1554.		3
81	Towards Intelligent Security for Unmanned Aerial Vehicles: A Taxonomy of Attacks, Faults, and Detection Mechanisms. , 2022, , .		3
82	Recursive Reasoning With Reduced Complexity and Intermittency for Nonequilibrium Learning in Stochastic Games. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 8467-8481.	7.2	3
83	Game-theoretic tracking control for actuator attack attenuation in cyber-physical systems. , 2016, , .		2
84	Dynamic Intermittent Suboptimal Control: Performance Quantification and Comparisons. , 2018, , .		2
85	Non-Equilibrium Learning and Cyber-Physical Security. , 2019, , .		2
86	Predictive Learning via Lookahead Simulation. , 2019, , .		2
87	Bounded Rationality in Byzantine Sensors Under Attacks. IEEE Transactions on Automatic Control, 2022, 67, 3606-3613.	3.6	2
88	Online Adaptive Learning in Energy Trading Stackelberg Games with Time-Coupling Constraints. , 2021, , .		2
89	Guest Editorial: Industrial Artificial Intelligence for Smart Manufacturing. IEEE Transactions on Industrial Informatics, 2021, 17, 8319-8323.	7.2	2
90	Optimal Recursive Backstepping for Nonlinear Systems in a Strict-Feedback Form with Continuous and Intermittent Updates. , 2020, , .		2

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91	A Meta-Learning and Bounded Rationality Framework for Repeated Games in Adversarial Environments. , 2020, , .		2
92	Temporal-Logic-Based Intermittent, Optimal, and Safe Continuous-Time Learning for Trajectory Tracking. , 2021, , .		2
93	Learning-Based Actuator Placement for Uncertain Systems. , 2021, , .		2
94	Adaptive Neural Network Stochastic-Filter-Based Controller for Attitude Tracking With Disturbance Rejection. IEEE Transactions on Neural Networks and Learning Systems, 2024, 35, 1217-1227.	7.2	2
95	An online integral reinforcement learning algorithm to solve N-player Nash games. , 2012, , .		1
96	Optimal and Robust Scheduling for Networked Control Systems [Bookshelf]. IEEE Control Systems, 2015, 35, 101-103.	1.0	1
97	Disturbance rejection of multi-agent systems: A reinforcement learning differential game approach. , 2015, , .		1
98	Dynamic Intermittent Q-Learning for Systems with Reduced Bandwidth. , 2018, , .		1
99	CODES: Cooperative Data-Enabled Extremum Seeking for Multi-Agent Systems. , 2019, , .		1
100	Detection of a Drifting Acoustic Transponder by an AUV. , 2020, , .		1
101	A Human-Integrated Tool for Proactive and Reactive Security in Cyber-Physical Systems. , 2021, , .		1
102	A Data-Based Moving Target Defense Framework for Switching Zero-Sum Games. , 2021, , .		1
103	Bounded Rational RRT-QX: Multi-Agent Motion Planning in Dynamic Human-Like Environments Using Cognitive Hierarchy and Q-Learning. , 2021, , .		1
104	Switching Watermarking-based Detection Scheme Against Replay Attacks. , 2021, , .		1
105	Adaptive Backstepping control for MAPK cascade models using RBF neural networks. , 2007, , .		0
106	Active-Bayesian learning for cooperation connectivity in dynamic cyber-physical-human systems. , 2017, , .		0
107	A model free learning algorithm to control autonomous streams over IoT. , 2018, , .		0
108	A multi-step and resilient predictive Q-learning algorithm for IoT. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
109	Off-Policy Reinforcement-Learning Algorithm to Solve Minimax Games on Graphs. , 2019, , .		0
110	Model-Free Reinforcement Learning-Based Control for Continuous-Time Systems. , 2021, , 1264-1275.		0
111	Neuro-inspired Control. , 2021, , 1441-1447.		0
112	Dissipativity-Based Verification for Autonomous Systems in Adversarial Environments. Studies in Systems, Decision and Control, 2021, , 273-291.	0.8	0
113	Intermittent Learning Through Operant Conditioning for Cyber-Physical Systems. IEEE Transactions on Neural Networks and Learning Systems, 2021, PP, 1-11.	7.2	0
114	Model-Free Reinforcement Learning-Based Control for Continuous-Time Systems. , 2020, , 1-12.		0