Kyriakos G Vamvoudakis

List of Publications by Year
in descending order

114 papers	6,198 citations	186265 28 h-index	161849 54 g-index
116 all docs	116 docs citations	116 times ranked	2476 citing authors

#	Article	IF	Citations
1	Online actorâ€“critic algorithm to solve the continuous-time infinite horizon optimal control problem. Automatica, 2010, 46, 878-888.	5.0	1,153
2	Reinforcement Learning and Feedback Control: Using Natural Decision Methods to Design Optimal Adaptive Controllers. IEEE Control Systems, 2012, 32, 76-105.	0.8	730
3	Optimal and Autonomous Control Using Reinforcement Learning: A Survey. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 2042-2062.	11.3	512
4	Multi-agent differential graphical games: Online adaptive learning solution for synchronization with optimality. Automatica, 2012, 48, 1598-1611.	5.0	405
5	Reinforcement Learning for Partially Observable Dynamic Processes: Adaptive Dynamic Programming Using Measured Output Data. IEEE Transactions on Systems, Man, and Cybernetics, 2011, 41, 14-25.	5.0	391
6	Multi-player non-zero-sum games: Online adaptive learning solution of coupled Hamiltonâ€“Jacobi equations. Automatica, 2011, 47, 1556-1569.	5.0	390
7	Event-triggered optimal adaptive control algorithm for continuous-time nonlinear systems. IEEE/CAA Journal of Automatica Sinica, 2014, 1, 282-293.	13.1	216
8	Multi-agent discrete-time graphical games and reinforcement learning solutions. Automatica, 2014, 50, 3038-3053.	5.0	206
9	Online solution of nonlinear twoâ€player zeroâ€sum games using synchronous policy iteration. International Journal of Robust and Nonlinear Control, 2012, 22, 1460-1483.	3.7	161
10	Q-learning for continuous-time linear systems: A model-free infinite horizon optimal control approach. Systems and Control Letters, 2017, 100, 14-20.	2.3	159
11	Asymptotically Stable Adaptiveâ€“Optimal Control Algorithm With Saturating Actuators and Relaxed Persistence of Excitation. IEEE Transactions on Neural Networks and Learning Systems, 2016, 27, 2386-2398.	11.3	127
12	Multi-agent zero-sum differential graphical games for disturbance rejection in distributed control. Automatica, 2016, 69, 24-34.	5.0	125
13	Online adaptive algorithm for optimal control with integral reinforcement learning. International Journal of Robust and Nonlinear Control, 2014, 24, 2686-2710.	3.7	113
14	Event-triggered optimal tracking control of nonlinear systems. International Journal of Robust and Nonlinear Control, 2017, 27, 598-619.	3.7	111
15	Model-free event-triggered control algorithm for continuous-time linear systems with optimal performance. Automatica, 2018, 87, 412-420.	5.0	96
16	Detection in Adversarial Environments. IEEE Transactions on Automatic Control, 2014, 59, 3209-3223.	5.7	83
17	Non-zero sum Nash Q-learning for unknown deterministic continuous-time linear systems. Automatica, 2015, 61, 274-281.	5.0	66
18	Safe reinforcement learning for dynamical games. International Journal of Robust and Nonlinear Control, 2020, 30, 3706-3726.	3.7	64

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19	Hamiltonian-Driven Hybrid Adaptive Dynamic Programming. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 6423-6434.	9.3	60
20	A Moving Target Defense Control Framework for Cyber-Physical Systems. IEEE Transactions on Automatic Control, 2020, 65, 1029-1043.	5.7	58
21	Safe Intermittent Reinforcement Learning With Static and Dynamic Event Generators. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 5441-5455.	11.3	56
22	Hamiltonian-Driven Adaptive Dynamic Programming With Approximation Errors. IEEE Transactions on Cybernetics, 2022, 52, 13762-13773.	9.5	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.	11.3	49
24	Dynamic Intermittent Feedback Design for H_{infty} Containment Control on a Directed Graph. IEEE Transactions on Cybernetics, 2020, 50, 3752-3765.	9.5	46
25	A Secure Control Learning Framework for Cyber-Physical Systems Under Sensor and Actuator Attacks. IEEE Transactions on Cybernetics, 2021, 51, 4648-4660.	9.5	43
26	Dynamic intermittent Qâ€learningâ€“based modelâ€free suboptimal coâ€design of â€stabilization. International Journal of Robust and Nonlinear Control, 2019, 29, 2673-2694.	3.7	34
27	Adaptive backstepping optimal control of a fractional-order chaotic magnetic-field electromechanical transducer. Nonlinear Dynamics, 2020, 100, 523-540.	5.2	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.	5.7	31
29	Autonomy and machine intelligence in complex systems: A tutorial. , 2015, , .		29
30	A dataâ€based private learning framework for enhanced security against replay attacks in cyberâ€physical systems. International Journal of Robust and Nonlinear Control, 2021, 31, 1817-1833.	3.7	29
31	Safety-Aware Reinforcement Learning Framework with an Actor-Critic-Barrier Structure. , 2019, , .		28
32	Qâ€learning for continuousâ€time graphical games on large networks with completely unknown linear system dynamics. International Journal of Robust and Nonlinear Control, 2017, 27, 2900-2920.	3.7	27
33	Simultaneous dynamic system estimation and optimal control of vehicle active suspension. Vehicle System Dynamics, 2019, 57, 1467-1493.	3.7	26
34	Distributed output-feedback model predictive control for multi-agent consensus. Systems and Control Letters, 2019, 127, 52-59.	2.3	25
35	Non-equilibrium dynamic games and cyberâ€“physical security: A cognitive hierarchy approach. Systems and Control Letters, 2019, 125, 59-66.	2.3	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.	4.1	21

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37	An Adaptive Actuation Mechanism for Anthropomorphic Robot Hands. Frontiers in Robotics and AI, 2019, 6, 47.	3.2	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 nonâ€linear games under unknown dynamics. IET Control Theory and Applications, 2019, 13, 2838-2848.	2.1	18
41	Distributed learning algorithm for non-linear differential graphical games. Transactions of the Institute of Measurement and Control, 2017, 39, 173-182.	1.7	16
42	Openâ€loop Stackelberg learning solution for hierarchical control problems. International Journal of Adaptive Control and Signal Processing, 2019, 33, 285-299.	4.1	16
43	Online Optimal Operation of Parallel Voltage-Source Inverters Using Partial Information. IEEE Transactions on Industrial Electronics, 2017, 64, 4296-4305.	7.9	15
44	Online adaptive learning of optimal control solutions using integral reinforcement learning. , 2011, , .		13
45	Dataâ€enabled extremum seeking: A cooperative concurrent learningâ€based approach. International Journal of Adaptive Control and Signal Processing, 2021, 35, 1256-1284.	4.1	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. IEEE Transactions on Aerospace and Electronic Systems, 2020, 56, 1444-1459.	4.7	12
48	Safe Approximate Dynamic Programming via Kernelized Lipschitz Estimation. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 405-419.	11.3	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 eventâ€triggered output feedback learning algorithm for voltage source inverters with unknown load and parameter variations. International Journal of Robust and Nonlinear Control, 2019, 29, 3502-3517.	3.7	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 cyberâ€“physical systems. Systems and Control Letters, 2021, 148, 104826.	2.3	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.	1.7	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.	1.5	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.	2.3	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.	7.9	4
77	Entropy-Based Proactive and Reactive Cyber-Physical Security. Advances in Information Security, 2019, , 59-83.	1.2	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.	11.3	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.	5.7	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.	11.3	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.	11.3	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.	0.8	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

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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.	1.0	0
113	Intermittent Learning Through Operant Conditioning for Cyber-Physical Systems. IEEE Transactions on Neural Networks and Learning Systems, 2021, PP, 1-11.	11.3	0
114	Model-Free Reinforcement Learning-Based Control for Continuous-Time Systems. , 2020, , 1-12.		0