

Lucian Busoniu

List of Publications by Year in descending order

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83
papers

3,939
citations

687335

13
h-index

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37
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85
all docs

85
docs citations

85
times ranked

3258
citing authors

#	ARTICLE	IF	CITATIONS
1	A Comprehensive Survey of Multiagent Reinforcement Learning. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2008, 38, 156-172.	2.9	1,328
2	A Survey of Actor-Critic Reinforcement Learning: Standard and Natural Policy Gradients. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2012, 42, 1291-1307.	2.9	606
3	Multi-agent Reinforcement Learning: An Overview. Studies in Computational Intelligence, 2010, , 183-221.	0.9	278
4	Reinforcement learning for control: Performance, stability, and deep approximators. Annual Reviews in Control, 2018, 46, 8-28.	7.9	231
5	Experience Replay for Real-Time Reinforcement Learning Control. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2012, 42, 201-212.	2.9	165
6	Vision and Control for UAVs: A Survey of General Methods and of Inexpensive Platforms for Infrastructure Inspection. Sensors, 2015, 15, 14887-14916.	3.8	162
7	Efficient Model Learning Methods for Actor-Critic Control. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 591-602.	5.0	97
8	Stability Analysis of Discrete-Time Infinite-Horizon Optimal Control With Discounted Cost. IEEE Transactions on Automatic Control, 2017, 62, 2736-2749.	5.7	74
9	Multi-Agent Reinforcement Learning: A Survey. , 2006, , .		64
10	Cross-Entropy Optimization of Control Policies With Adaptive Basis Functions. IEEE Transactions on Systems, Man, and Cybernetics, 2011, 41, 196-209.	5.0	58
11	Approximate dynamic programming with a fuzzy parameterization. Automatica, 2010, 46, 804-814.	5.0	52
12	Online least-squares policy iteration for reinforcement learning control. , 2010, , .		39
13	Approximate reinforcement learning: An overview. , 2011, , .		30
14	Decentralized Reinforcement Learning Control of a Robotic Manipulator. , 2006, , .		25
15	Vision-based control of a quadrotor for an object inspection scenario. , 2016, , .		25
16	Control delay in Reinforcement Learning for real-time dynamic systems: A memoryless approach. , 2010, , .		24
17	Finite-Horizon Discounted Optimal Control: Stability and Performance. IEEE Transactions on Automatic Control, 2021, 66, 550-565.	5.7	21
18	Model learning actor-critic algorithms: Performance evaluation in a motion control task. , 2012, , .		20

#	ARTICLE	IF	CITATIONS
19	Consensus for black-box nonlinear agents using optimistic optimization. Automatica, 2014, 50, 1201-1208.	5.0	17
20	Railway track following with the AR.Drone using vanishing point detection. , 2014, , .		14
21	Fall monitoring and detection for at-risk persons using a UAV. IFAC-PapersOnLine, 2018, 51, 199-204.	0.9	14
22	Optimistic planning for continuous-action deterministic systems. , 2013, , .		13
23	Continuous-State Reinforcement Learning with Fuzzy Approximation. Lecture Notes in Computer Science, 2008, , 27-43.	1.3	12
24	Optimistic planning for sparsely stochastic systems. , 2011, , .		11
25	Least-Squares Methods for Policy Iteration. Adaptation, Learning, and Optimization, 2012, , 75-109.	0.6	10
26	Approximate Dynamic Programming and Reinforcement Learning. Studies in Computational Intelligence, 2010, , 3-44.	0.9	9
27	Near-Optimal Strategies for Nonlinear and Uncertain Networked Control Systems. IEEE Transactions on Automatic Control, 2016, 61, 2124-2139.	5.7	8
28	Planning for optimal control and performance certification in nonlinear systems with controlled or uncontrolled switches. Automatica, 2017, 78, 297-308.	5.0	8
29	Space-time budget allocation policy design for viral marketing. Nonlinear Analysis: Hybrid Systems, 2020, 37, 100899.	3.5	8
30	Optimistic planning for belief-augmented Markov Decision Processes. , 2013, , .		7
31	An analysis of optimistic, best-first search for minimax sequential decision making. , 2014, , .		7
32	Continuous-action planning for discounted infinite-horizon nonlinear optimal control with Lipschitz values. Automatica, 2018, 92, 100-108.	5.0	7
33	Data-Efficient Reinforcement Learning for Energy Optimization of Power-Assisted Wheelchairs. IEEE Transactions on Industrial Electronics, 2019, 66, 9734-9744.	7.9	7
34	Policy search with cross-entropy optimization of basis functions. , 2009, , .		6
35	Using prior knowledge to accelerate online least-squares policy iteration. , 2010, , .		6
36	Near-optimal strategies for nonlinear networked control systems using optimistic planning. , 2013, , .		6

#	ARTICLE	IF	CITATIONS
37	Robust observer-based tracking control under actuator constraints for power-assisted wheelchairs. Control Engineering Practice, 2021, 109, 104716.	5.5	6
38	ObserveNet Control: A Vision-Dynamics Learning Approach to Predictive Control in Autonomous Vehicles. IEEE Robotics and Automation Letters, 2021, 6, 6915-6922.	5.1	6
39	Fuzzy Partition Optimization for Approximate Fuzzy Q-iteration. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 5629-5634.	0.4	5
40	Optimistic planning with a limited number of action switches for near-optimal nonlinear control. , 2014, , .		5
41	Machine Learning with Applications to Autonomous Systems. Mathematical Problems in Engineering, 2015, 2015, 1-2.	1.1	5
42	Stability analysis of discrete-time finite-horizon discounted optimal control. , 2018, , .		5
43	Observer-Based Assistive Control Design Under Time-Varying Sampling for Power-Assisted Wheelchairs. IFAC-PapersOnLine, 2018, 51, 151-156.	0.9	5
44	Learning control for transmission and navigation with a mobile robot under unknown communication rates. Control Engineering Practice, 2020, 100, 104460.	5.5	5
45	Imitation learning with non-parametric regression. , 2012, , .		4
46	Consistency of fuzzy model-based reinforcement learning. , 2008, , .		3
47	Model predictive control for continuous piecewise affine systems using optimistic optimization. , 2016, , .		3
48	Near-optimal control of nonlinear switched systems with non-cooperative switching rules. , 2017, , .		3
49	Optimistic planning for the near-optimal control of nonlinear switched discrete-time systems with stability guarantees. , 2019, , .		3
50	Stability guarantees for nonlinear discrete-time systems controlled by approximate value iteration. , 2019, , .		3
51	Sorting objects from a conveyor belt using active perception with a POMDP model. , 2019, , .		3
52	Efficient Knowledge Transfer in Shaping Reinforcement Learning. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 8981-8986.	0.4	2
53	Consensus for agents with general dynamics using optimistic optimization. , 2013, , .		2
54	Real-Time Optimistic Planning with Action Sequences. , 2015, , .		2

#	ARTICLE	IF	CITATIONS
55	Planning methods for the optimal control and performance certification of general nonlinear switched systems. , 2015, , .		2
56	Online learning for optimistic planning. Engineering Applications of Artificial Intelligence, 2016, 55, 70-82.	8.1	2
57	Unknown input observer in descriptor form via LMIs for power-assisted wheelchairs. , 2017, , .		2
58	Reinforcement Learning for Energy Optimization Under Human Fatigue Constraints of Power-Assisted Wheelchairs. , 2018, , .		2
59	Observer Design for a Class of Nonlinear Systems With Nonscalar-Input Nonlinear Consequents. , 2021, 5, 971-976.		2
60	Stable Near-Optimal Control of Nonlinear Switched Discrete-Time Systems: An Optimistic Planning-Based Approach. IEEE Transactions on Automatic Control, 2022, 67, 2298-2313.	5.7	2
61	Vision-Based Quadcopter Navigation in Structured Environments. Studies in Systems, Decision and Control, 2015, , 265-290.	1.0	2
62	Sliding mode control of a ball balancing robot. IFAC-PapersOnLine, 2020, 53, 9490-9495.	0.9	2
63	Online learning control for path-aware global optimization with nonlinear mobile robots. Control Engineering Practice, 2022, 126, 105228.	5.5	2
64	Topology-preserving flocking of nonlinear agents using optimistic planning. Control Theory and Technology, 2015, 13, 70-81.	1.6	1
65	Receding-horizon control for max-plus linear systems with discrete actions using optimistic planning. , 2016, , .		1
66	Analysis and a home assistance application of online AEMS2 planning. , 2016, , .		1
67	Discounted near-optimal control of general continuous-action nonlinear systems using optimistic planning. , 2016, , .		1
68	Robust Observer-Based Tracking Control Design for Power-Assisted Wheelchairs. IFAC-PapersOnLine, 2019, 52, 61-66.	0.9	1
69	Hardware and control design of a ball balancing robot. , 2019, , .		1
70	Learning-based control for a communicating mobile robot under unknown rates. , 2019, , .		1
71	Sorting Objects from a Conveyor Belt Using POMDPs with Multiple-Object Observations and Information-Gain Rewards. Sensors, 2020, 20, 2481.	3.8	1
72	The ClujUAV student competition: A corridor navigation challenge with autonomous drones. IFAC-PapersOnLine, 2020, 53, 17511-17517.	0.9	1

#	ARTICLE	IF	CITATIONS
73	A general approach for consensus using optimistic planning. , 2013, , .		0
74	Optimistic planning with long sequences of identical actions for near-optimal nonlinear control. , 2014, , .		0
75	Optimistic Planning for the Near-Optimal Control of General Nonlinear Systems with Continuous Transition Distributions. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1910-1915.	0.4	0
76	Decentralized Formation Control in Fleets of Nonholonomic Robots with a Clustered Pattern. Studies in Systems, Decision and Control, 2015, , 313-333.	1.0	0
77	Near-optimal control with adaptive receding horizon for discrete-time piecewise affine systems * *This work was supported by the Chinese Scholarship Council, as well as by the Agence Universitaire de la Francophonie (AUF) and the Romanian Institute for Atomic Physics (IFA) under the AUF-RO project NETASSIST.. IFAC-PapersOnLine, 2017, 50, 4168-4173.	0.9	0
78	Optimistic planning with an adaptive number of action switches for near-optimal nonlinear control. Engineering Applications of Artificial Intelligence, 2018, 67, 355-367.	8.1	0
79	Space-time budget allocation for marketing over social networks. IFAC-PapersOnLine, 2018, 51, 211-216.	0.9	0
80	Near-optimal control of nonlinear systems with simultaneous controlled and random switches. IFAC-PapersOnLine, 2019, 52, 268-273.	0.9	0
81	Optimistic minimax search for noncooperative switched control with or without dwell time. Automatica, 2020, 112, 108632.	5.0	0
82	Cross Entropy Optimization of Action Modification Policies for Continuous-Valued MDPs. IFAC-PapersOnLine, 2020, 53, 8124-8129.	0.9	0
83	Optimistic planning for near-optimal control of nonlinear systems with hybrid inputs. , 2021, , .		0