Lucian Busoniu

List of Publications by Year
in descending order

83 papers	3,939 citations	687363 13 h-index	330143 37 g-index
85 all docs	85 docs citations	85 times ranked	3258 citing authors

#	Article	IF	Citations
1	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
2	Online learning control for path-aware global optimization with nonlinear mobile robots. Control Engineering Practice, 2022, 126, 105228.	5.5	2
3	Finite-Horizon Discounted Optimal Control: Stability and Performance. IEEE Transactions on Automatic Control, 2021, 66, 550-565.	5.7	21
4	Observer Design for a Class of Nonlinear Systems With Nonscalar-Input Nonlinear Consequents. , 2021, 5, 971-976.		2
5	Robust observer-based tracking control under actuator constraints for power-assisted wheelchairs. Control Engineering Practice, 2021, 109, 104716.	5.5	6
6	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
7	Optimistic planning for near-optimal control of nonlinear systems with hybrid inputs. , 2021, , .		0
8	Optimistic minimax search for noncooperative switched control with or without dwell time. Automatica, 2020, 112, 108632.	5.0	0
9	Sorting Objects from a Conveyor Belt Using POMDPs with Multiple-Object Observations and Information-Gain Rewards. Sensors, 2020, 20, 2481.	3.8	1
10	Space–time budget allocation policy design for viral marketing. Nonlinear Analysis: Hybrid Systems, 2020, 37, 100899.	3.5	8
11	Learning control for transmission and navigation with a mobile robot under unknown communication rates. Control Engineering Practice, 2020, 100, 104460.	5.5	5
12	Cross Entropy Optimization of Action Modification Policies for Continuous-Valued MDPs. IFAC-PapersOnLine, 2020, 53, 8124-8129.	0.9	0
13	Sliding mode control of a ball balancing robot. IFAC-PapersOnLine, 2020, 53, 9490-9495.	0.9	2
14	The ClujUAV student competition: A corridor navigation challenge with autonomous drones. IFAC-PapersOnLine, 2020, 53, 17511-17517.	0.9	1
15	Robust Observer-Based Tracking Control Design for Power-Assisted Wheelchairs. IFAC-PapersOnLine, 2019, 52, 61-66.	0.9	1
16	Near-optimal control of nonlinear systems with simultaneous controlled and random switches. IFAC-PapersOnLine, 2019, 52, 268-273.	0.9	0
17	Hardware and control design of a ball balancing robot. , 2019, , .		1
18	Data-Efficient Reinforcement Learning for Energy Optimization of Power-Assisted Wheelchairs. IEEE Transactions on Industrial Electronics, 2019, 66, 9734-9744.	7.9	7

#	Article	IF	Citations
19	Optimistic planning for the near-optimal control of nonlinear switched discrete-time systems with stability guarantees. , 2019, , .		3
20	Stability guarantees for nonlinear discrete-time systems controlled by approximate value iteration. , 2019, , .		3
21	Sorting objects from a conveyor belt using active perception with a POMDP model. , 2019, , .		3
22	Learning-based control for a communicating mobile robot under unknown rates. , 2019, , .		1
23	Continuous-action planning for discounted infinite-horizon nonlinear optimal control with Lipschitz values. Automatica, 2018, 92, 100-108.	5.0	7
24	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
25	Stability analysis of discrete-time finite-horizon discounted optimal control. , 2018, , .		5
26	Observer-Based Assistive Control Design Under Time-Varying Sampling for Power-Assisted Wheelchairs. IFAC-PapersOnLine, 2018, 51, 151-156.	0.9	5
27	Fall monitoring and detection for at-risk persons using a UAV. IFAC-PapersOnLine, 2018, 51, 199-204.	0.9	14
28	Space-time budget allocation for marketing over social networks. IFAC-PapersOnLine, 2018, 51, 211-216.	0.9	0
29	Reinforcement learning for control: Performance, stability, and deep approximators. Annual Reviews in Control, 2018, 46, 8-28.	7.9	231
30	Reinforcement Learning for Energy Optimization Under Human Fatigue Constraints of Power-Assisted Wheelchairs. , 2018, , .		2
31	Planning for optimal control and performance certification in nonlinear systems with controlled or uncontrolled switches. Automatica, 2017, 78, 297-308.	5.0	8
32	Unknown input observer in descriptor form via LMIs for power-assisted wheelchairs. , 2017, , .		2
33	Near-optimal control of nonlinear switched systems with non-cooperative switching rules. , 2017, , .		3
34	Stability Analysis of Discrete-Time Infinite-Horizon Optimal Control With Discounted Cost. IEEE Transactions on Automatic Control, 2017, 62, 2736-2749.	5.7	74
35	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
36	Receding-horizon control for max-plus linear systems with discrete actions using optimistic planning. , 2016, , .		1

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37	Vision-based control of a quadrotor for an object inspection scenario. , 2016, , .		25
38	Analysis and a home assistance application of online AEMS2 planning. , 2016, , .		1
39	Discounted near-optimal control of general continuous-action nonlinear systems using optimistic planning. , 2016, , .		1
40	Model predictive control for continuous piecewise affine systems using optimistic optimization. , 2016, , .		3
41	Online learning for optimistic planning. Engineering Applications of Artificial Intelligence, 2016, 55, 70-82.	8.1	2
42	Near-Optimal Strategies for Nonlinear and Uncertain Networked Control Systems. IEEE Transactions on Automatic Control, 2016, 61, 2124-2139.	5.7	8
43	Real-Time Optimistic Planning with Action Sequences. , 2015, , .		2
44	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
45	Machine Learning with Applications to Autonomous Systems. Mathematical Problems in Engineering, 2015, 2015, 1-2.	1.1	5
46	Planning methods for the optimal control and performance certification of general nonlinear switched systems. , 2015, , .		2
47	Decentralized Formation Control in Fleets of Nonholonomic Robots with a Clustered Pattern. Studies in Systems, Decision and Control, 2015, , 313-333.	1.0	0
48	Topology-preserving flocking of nonlinear agents using optimistic planning. Control Theory and Technology, 2015, 13, 70-81.	1.6	1
49	Vision-Based Quadcopter Navigation in Structured Environments. Studies in Systems, Decision and Control, 2015, , 265-290.	1.0	2
50	An analysis of optimistic, best-first search for minimax sequential decision making. , 2014, , .		7
51	Consensus for black-box nonlinear agents using optimistic optimization. Automatica, 2014, 50, 1201-1208.	5.0	17
52	Optimistic planning with long sequences of identical actions for near-optimal nonlinear control. , 2014, , .		0
53	Railway track following with the AR.Drone using vanishing point detection. , 2014, , .		14
54	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

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55	Optimistic planning with a limited number of action switches for near-optimal nonlinear control. , 2014, , .		5
56	A general approach for consensus using optimistic planning. , 2013, , .		0
57	Optimistic planning for belief-augmented Markov Decision Processes. , 2013, , .		7
58	Optimistic planning for continuous-action deterministic systems. , 2013, , .		13
59	Near-optimal strategies for nonlinear networked control systems using optimistic planning. , 2013, , .		6
60	Consensus for agents with general dynamics using optimistic optimization. , 2013, , .		2
61	Imitation learning with non-parametric regression. , 2012, , .		4
62	Model learning actor-critic algorithms: Performance evaluation in a motion control task. , 2012, , .		20
63	Efficient Model Learning Methods for Actorâ€"Critic Control. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 591-602.	5.0	97
64	Least-Squares Methods for Policy Iteration. Adaptation, Learning, and Optimization, 2012, , 75-109.	0.6	10
65	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
66	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
67	Approximate reinforcement learning: An overview. , 2011, , .		30
68	Optimistic planning for sparsely stochastic systems. , 2011, , .		11
69	Cross-Entropy Optimization of Control Policies With Adaptive Basis Functions. IEEE Transactions on Systems, Man, and Cybernetics, 2011, 41, 196-209.	5.0	58
70	Efficient Knowledge Transfer in Shaping Reinforcement Learning. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 8981-8986.	0.4	2
71	Approximate dynamic programming with a fuzzy parameterization. Automatica, 2010, 46, 804-814.	5.0	52
72	Control delay in Reinforcement Learning for real-time dynamic systems: A memoryless approach. , 2010, , .		24

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73	Multi-agent Reinforcement Learning: An Overview. Studies in Computational Intelligence, 2010, , 183-221.	0.9	278
74	Using prior knowledge to accelerate online least-squares policy iteration. , 2010, , .		6
75	Online least-squares policy iteration for reinforcement learning control. , 2010, , .		39
76	Approximate Dynamic Programming and Reinforcement Learning. Studies in Computational Intelligence, 2010, , 3-44.	0.9	9
77	Policy search with cross-entropy optimization of basis functions. , 2009, , .		6
78	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
79	Consistency of fuzzy model-based reinforcement learning. , 2008, , .		3
80	Fuzzy Partition Optimization for Approximate Fuzzy Q-iteration. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 5629-5634.	0.4	5
81	Continuous-State Reinforcement Learning with Fuzzy Approximation. Lecture Notes in Computer Science, 2008, , 27-43.	1.3	12
82	Multi-Agent Reinforcement Learning: A Survey. , 2006, , .		64
83	Decentralized Reinforcement Learning Control of a Robotic Manipulator. , 2006, , .		25