Aristotle Arapostathis

List of Publications by Year
in descending order

155 papers	4,192 citations	218381 26 h-index	133063 59 g-index
162 all docs	162 docs citations	162 times ranked	1974 citing authors

#	Article	IF	Citations
1	Discrete-Time Controlled Markov Processes with Average Cost Criterion: A Survey. SIAM Journal on Control and Optimization, 1993, 31, 282-344.	1.1	469
2	Quarternion feedback regulator for spacecraft eigenaxis rotations. Journal of Guidance, Control, and Dynamics, 1989, 12, 375-380.	1.6	454
3	A structure preserving energy function for power system transient stability analysis. IEEE Transactions on Circuits and Systems, 1985, 32, 1041-1049.	0.9	206
4	Optimal Control of Switching Diffusions with Application to Flexible Manufacturing Systems. SIAM Journal on Control and Optimization, 1993, 31, 1183-1204.	1.1	195
5	Ergodic Control of Switching Diffusions. SIAM Journal on Control and Optimization, 1997, 35, 1952-1988.	1.1	191
6	A model reference adaptive control scheme for pure-feedback nonlinear systems. IEEE Transactions on Automatic Control, 1988, 33, 803-811.	3.6	189
7	Capacity of a Class of Cognitive Radio Channels: Interference Channels With Degraded Message Sets. IEEE Transactions on Information Theory, 2007, 53, 4391-4399.	1.5	170
8	Linearization of discrete-time systems. International Journal of Control, 1987, 45, 1803-1822.	1.2	130
9	Simple sliding mode control scheme applied to robot manipulators. International Journal of Control, 1987, 45, 1197-1209.	1.2	130
10	A statistical method for predicting the net harmonic currents generated by a concentration of electric vehicle battery chargers. IEEE Transactions on Power Delivery, 1997, 12, 1258-1266.	2.9	104
11	Power Quality Indices for Transient Disturbances. IEEE Transactions on Power Delivery, 2006, 21, 253-261.	2.9	100
12	A statistical analysis of the effect of electric vehicle battery charging on distribution system harmonic voltages. IEEE Transactions on Power Delivery, 1998, 13, 640-646.	2.9	95
13	A Note on Controllability of Impulsive Systems. Journal of Mathematical Analysis and Applications, 2000, 241, 276-283.	0.5	94
14	Remarks on smooth feedback stabilization of nonlinear systems. Systems and Control Letters, 1988, 10, 41-44.	1.3	89
15	An optimal procedure for placing sensors and estimating the locations of harmonic sources in power systems. IEEE Transactions on Power Delivery, 1993, 8, 1303-1310.	2.9	59
16	The effect of sampling on linear equivalence and feedback linearization. Systems and Control Letters, 1989, 13, 373-381.	1.3	57
17	On the average cost optimality equation and the structure of optimal policies for partially observable Markov decision processes. Annals of Operations Research, 1991, 29, 439-469.	2.6	52
18	A procedure for derating a substation transformer in the presence of widespread electric vehicle battery charging. IEEE Transactions on Power Delivery, 1997, 12, 1562-1568.	2.9	51

#	Article	IF	Citations
19	Global analysis of swing dynamics. IEEE Transactions on Circuits and Systems, 1982, 29, 673-679.	0.9	48
20	Analysis of an identification algorithm arising in the adaptive estimation of Markov chains. Mathematics of Control, Signals, and Systems, 1990, 3, 1-29.	1.4	46
21	Optimal Sensor Querying: General Markovian and LQG Models With Controlled Observations. IEEE Transactions on Automatic Control, 2008, 53, 1392-1405.	3.6	46
22	Harnack's inequality for cooperative weakly coupled elliptic systems. Communications in Partial Differential Equations, 1999, 24, 1555-1571.	1.0	37
23	Joint Network Coding and Superposition Coding for Multi-User Information Exchange in Wireless Relaying Networks. , 2008, , .		34
24	Analytical Modeling of SRAM Dynamic Stability. IEEE/ACM International Conference on Computer-Aided Design, Digest of Technical Papers, 2006, , .	0.0	33
25	Analysis of an adaptive control scheme for a partially observed controlled Markov chain. IEEE Transactions on Automatic Control, 1993, 38, 987-993.	3.6	32
26	Minimum outage probability transmission with imperfect feedback for MISO fading channels. IEEE Transactions on Wireless Communications, 2005, 4, 1084-1091.	6.1	32
27	Continuous selections of trajectories of hybrid systems. Systems and Control Letters, 2002, 47, 149-157.	1.3	29
28	Controlled Markov chains with safety upper bound. IEEE Transactions on Automatic Control, 2003, 48, 1230-1234.	3.6	29
29	On the Capacity of Gaussian Weak Interference Channels with Degraded Message sets. , 2006, , .		29
30	Strict monotonicity of principal eigenvalues of elliptic operators in $\mathbb{R}^d$ and risk-sensitive control. Journal Des Mathematiques Pures Et Appliquees, 2019, 124, 169-219.	0.8	27
31	Optimal Power Allocation for a Time-Varying Wireless Channel Under Heavy-Traffic Approximation. IEEE Transactions on Automatic Control, 2006, 51, 580-594.	3.6	26
32	Detection of Flicker Caused by Interharmonics. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 152-160.	2.4	26
33	Infinite horizon risk-sensitive control of diffusions without any blanket stability assumptions. Stochastic Processes and Their Applications, 2018, 128, 1485-1524.	0.4	26
34	LED Lamp Flicker Caused by Interharmonics. , 2008, , .		25
35	A sufficient condition for local controllability of nonlinear systems along closed orbits. IEEE Transactions on Automatic Control, 1992, 37, 378-380.	3.6	24
36	Greedy Motion Planning for Simultaneous Signal Landscape Mapping and Receiver Localization. IEEE Journal on Selected Topics in Signal Processing, 2015, 9, 247-258.	7.3	24

#	Article	IF	Citations
37	On the controllability of a class of nonlinear stochastic systems. Systems and Control Letters, 2001, 44, 25-34.	1.3	23
38	Stability and controllability of planar, conewise linear systems. Systems and Control Letters, 2007, 56, 150-158.	1.3	23
39	A time-domain procedure for locating switched capacitors in power distribution systems. IEEE Transactions on Power Delivery, 2002, 17, 1044-1049.	2.9	22
40	Power Electronic Transient Load Model for Use in Stability Studies of Electric Power Grids. IEEE Transactions on Power Systems, 2010, 25, 914-921.	4.6	21
41	Uniform Recurrence Properties of Controlled Diffusions and Applications to Optimal Control. SIAM Journal on Control and Optimization, 2010, 48, 4181-4223.	1.1	19
42	On the controllability of piecewise-linear hypersurface systems. Systems and Control Letters, 1987, 9, 89-96.	1.3	18
43	Some numerical aspects of approximate linearization of single input non-linear systems. International Journal of Control, 1993, 57, 463-472.	1.2	18
44	On the existence of stationary optimal policies for partially observed MDPs under the long-run average cost criterion. Systems and Control Letters, 2006, 55, 165-173.	1.3	18
45	Remarks on the existence of solutions to the average cost optimality equation in Markov decision processes. Systems and Control Letters, 1990, 15, 425-432.	1.3	17
46	The Dirichlet problem for stable-like operators and related probabilistic representations. Communications in Partial Differential Equations, 2016, 41, 1472-1511.	1.0	17
47	On solutions of mean field games with ergodic cost. Journal Des Mathematiques Pures Et Appliquees, 2017, 107, 205-251.	0.8	17
48	Ergodicity of a Lévy-driven SDE arising from multiclass many-server queues. Annals of Applied Probability, 2019, 29, .	0.6	17
49	Ergodic control of multi-class $M/M/N+M$ queues in the Halfin–Whitt regime. Annals of Applied Probability, 2015, 25, .	0.6	16
50	Control of Markov Chains With Safety Bounds. IEEE Transactions on Automation Science and Engineering, 2005, 2, 333-343.	3.4	15
51	Risk-Sensitive Control and an Abstract Collatz–Wielandt Formula. Journal of Theoretical Probability, 2016, 29, 1458-1484.	0.4	15
52	Augmenting max-weight with explicit learning for wireless scheduling with switching costs. , 2017, , .		15
53	Analytic expressions for the unstable manifold at equilibrium points in dynamical systems of differential equations. , 1983, , .		14
54	Necessary and Sufficient Conditions for State Equivalence to a Nonlinear Discrete-Time Observer Canonical Form. IEEE Transactions on Automatic Control, 2008, 53, 2701-2707.	3.6	14

#	Article	IF	Citations
55	Aspiration Learning in Coordination Games. SIAM Journal on Control and Optimization, 2013, 51, 465-490.	1.1	13
56	A counterexample to a nonlinear version of the KreÄnâ€"Rutman theorem by R. Mahadevan. Nonlinear Analysis: Theory, Methods & Applications, 2018, 171, 170-176.	0.6	13
57	A Variational Formula for Risk-Sensitive Control of Diffusions in $\mathbb{R}^d$. SIAM Journal on Control and Optimization, 2020, 58, 85-103.	1.1	13
58	Signal Processing-Based Direction Finder for Transient Capacitor Switching Disturbances. IEEE Transactions on Power Delivery, 2008, 23, 2555-2562.	2.9	12
59	On the adaptive control of a partially observable binary markov decision process. , 1989, , 217-228.		11
60	Optimal Power Generation Scheduling of a Shipboard Power System. , 2007, , .		11
61	Reconfiguration in Shipboard Power Systems. Proceedings of the American Control Conference, 2007, , .	0.0	11
62	A Novel QPC Detector for the Health Monitoring of Rotating Machines. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	10
63	Augmenting Max-Weight With Explicit Learning for Wireless Scheduling With Switching Costs. IEEE/ACM Transactions on Networking, 2018, 26, 2501-2514.	2.6	10
64	On partially observable Markov decision processes with an average cost criterion. , 0, , .		9
65	Linearization of discrete-time systems via restricted dynamic feedback. IEEE Transactions on Automatic Control, 2003, 48, 1646-1650.	3.6	9
66	Ergodic diffusion control of multiclass multi-pool networks in the Halfinâ€"Whitt regime. Annals of Applied Probability, 2016, 26, .	0.6	9
67	Infinite-Horizon Average Optimality of the N-Network in the Halfinâ€"Whitt Regime. Mathematics of Operations Research, 2018, 43, 838-866.	0.8	9
68	Certain Liouville properties of eigenfunctions of elliptic operators. Transactions of the American Mathematical Society, 2018, 371, 4377-4409.	0.5	9
69	A Variational Characterization of the Risk-Sensitive Average Reward for Controlled Diffusions on $\mathbb{R}^d$. SIAM Journal on Control and Optimization, 2020, 58, 3785-3813.	1.1	9
70	A Relative Value Iteration Algorithm for Nondegenerate Controlled Diffusions. SIAM Journal on Control and Optimization, 2012, 50, 1886-1902.	1.1	8
71	Ergodic Control of a Class of Jump Diffusions with Finite LÃ©vy Measures and Rough Kernels. SIAM Journal on Control and Optimization, 2019, 57, 1516-1540.	1.1	8
72	On the policy improvement algorithm for ergodic risk-sensitive control. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2021, 151, 1305-1330.	0.8	8

#	Article	IF	Citations
73	Remarks on redundancy in stability criteria and a counterexample to Fuller's conjecture. International Journal of Control, 1979, 29, 1027-1034.	1.2	7
74	Behaviour of three-node power networks. International Journal of Electrical Power and Energy Systems, 1983, 5, 22-30.	3.3	7
75	On the adaptive control of a partially observable Markov decision process. , 0, , .		7
76	Stabilization of discrete-time linear systems with a time delay in the feedback loop. International Journal of Control, 1988, 48, 1475-1485.	1.2	7
77	An optimal control problem arising in flexible manufacturing systems. , 0, , .		7
78	Machine Condition Monitoring Utilizing a Novel Bispectral Change Detection. IEEE Power Engineering Society General Meeting, 2007, , .	0.0	7
79	Convergence of the Relative Value Iteration for the Ergodic Control Problem of Nondegenerate Diffusions under Near-Monotone Costs. SIAM Journal on Control and Optimization, 2014, 52, 1-31.	1.1	7
80	Infinite horizon asymptotic average optimality for large-scale parallel server networks. Stochastic Processes and Their Applications, 2019, 129, 283-322.	0.4	7
81	Principal-Oscillation-Pattern Analysis of Gene Expression. PLoS ONE, 2012, 7, e28805.	1.1	7
82	On uniqueness of solutions to viscous HJB equations with a subquadratic nonlinearity in the gradient. Communications in Partial Differential Equations, 2019, 44, 1466-1480.	1.0	6
83	Optimal control of a hybrid system with pathwise average cost. , 0, , .		5
84	Structured solutions for stochastic control problems. , 1992, , 172-184.		5
85	A note on an LQG regulator with Markovian switching and pathwise average cost. IEEE Transactions on Automatic Control, 1995, 40, 1919-1921.	3.6	5
86	Continuous Interpolation of Solutions of Lipschitz Inclusions. Journal of Mathematical Analysis and Applications, 2001, 258, 565-572.	0.5	5
87	State-feedback control of markov chains with safety bounds. , 0, , .		5
88	ASD System Condition Monitoring Using Cross Bicoherence. , 2007, , .		5
89	Perspectives on Power System Reconfiguration for Shipboard Applications. , 2007, , .		5
90	Broadcasting in Sensor Networks: The Role of Local Information. IEEE/ACM Transactions on Networking, 2008, 16, 1133-1146.	2.6	5

#	ARTICLE	IF	CITATIONS
91	Aspiration learning in coordination games. , 2010, , .		5
92	Resource allocation: Realizing mean-variability-fairness tradeoffs. , 2012, , .		5
93	Controlled equilibrium selection in stochastically perturbed dynamics. Annals of Probability, 2018, 46, .	0.8	5
94	Relative Value Iteration for Stochastic Differential Games. Annals of the International Society of Dynamic Games, 2013, , 3-27.	0.3	5
95	Remarks of discretization and linear equivalence of continuous time nonlinear systems. , 1987, , .		4
96	On the digital control of nonlinear systems. , 0, , .		4
97	Real and reactive power analysis for interharmonics. , 2005, , .		4
98	Broadcasting in Sensor Networks: The Role of Local Information. , 2006, , .		4
99	Detection of Flicker Caused by High-frequency Interharmonics. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	4
100	Optimal Control of Markov-Modulated Multiclass Many-Server Queues. Stochastic Systems, 2019, 9, 155-181.	0.8	4
101	Optimal Sensor Scheduling Under Intermittent Observations Subject to Network Dynamics. IEEE Transactions on Automatic Control, 2023, 68, 1399-1414.	3.6	4
102	Bifurcation analysis of the load flow equations. , 1980, , .		3
103	Contributions to the sliding mode control of robot manipulators. , 1985, , .		3
104	Optimal control of switching diffusions modelling a flexible manufacturing system. , 1992, , 210-224.		3
105	Controlled switching diffusions as hybrid processes. Lecture Notes in Computer Science, 1996, , 64-75.	1.0	3
106	Dynamic reconfiguration preserving stability. , 2005, , .		3
107	Stability and controllability of planar, conewise linear systems. , 2007, , .		3
108	Eigen-Genomic System Dynamic-Pattern Analysis (ESDA): Modeling mRNA Degradation and Self-Regulation. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2012, 9, 430-437.	1.9	3

#	Article	IF	Citations
109	Resource Allocation: Realizing Mean-Variability-Fairness Tradeoffs. IEEE Transactions on Automatic Control, 2015, 60, 19-33.	3.6	3
110	Reliability analysis of three-dimensional shipboard electrical power distribution systems. , 2015, , .		3
111	Some New Results on Sample Path Optimality in Ergodic Control of Diffusions. IEEE Transactions on Automatic Control, 2017, 62, 5351-5356.	3.6	3
112	Optimal scheduling of multiple sensors which transmit measurements over a dynamic lossy network. , 2019, , .		3
113	Ergodic control of diffusions with compound Poisson jumps under a general structural hypothesis. Stochastic Processes and Their Applications, 2020, 130, 6733-6756.	0.4	3
114	On Uniform Exponential Ergodicity of Markovian Multiclass Many-Server Queues in the Halfinâ€"Whitt Regime. Mathematics of Operations Research, 2021, 46, 772-796.	0.8	3
115	On the Policy Iteration Algorithm for Nondegenerate Controlled Diffusions Under the Ergodic Criterion. Systems and Control: Foundations and Applications, 2012, , 1-12.	0.1	3
116	Uniform Polynomial Rates of Convergence for A Class of LÃ©vy-Driven Controlled SDEs Arising in Multiclass Many-Server Queues. The IMA Volumes in Mathematics and Its Applications, 2019, , 1-20.	0.5	3
117	Contributions to the study of the periodic solutions of the Riccati equation. , 1984, , .		2
118	Analysis of an adaptive control scheme for a partially observed controlled Markov chain. , 1990, , .		2
119	Virtual power quality analysis for ship power system design. , 0, , .		2
120	A voltage sag-based procedure for determining transient stability models of conventional loads. , 2005, , .		2
121	Enhancement and Application of a Voltage Sag Station to Test Transient Load Response. , 2007, , .		2
122	Optimal Scheduling of Critically Loaded Multiclass GI/M/n+M Queues in an Alternating Renewal Environment. Applied Mathematics and Optimization, 2021, 84, 1857-1901.	0.8	2
123	Subexponential Upper and Lower Bounds in Wasserstein Distance for Markov Processes. Applied Mathematics and Optimization, 2022, 85, 1.	0.8	2
124	Remarks on the periodic orbits of the matrix Riccati equation. International Journal of Control, 1988, 48, 949-959.	1.2	1
125	Linearization of discrete and discretized nonlinear systems. , 1989, , 91-101.		1
126	Adaptive control of a partially observed controlled Markov chain. , 1992, , 161-171.		1

#	Article	IF	Citations
127	Controlled Markov chains and safety criteria. , 0, , .		1
128	Determination of transient disturbance energy flow in electric power systems via cross time-frequency distribution. , 2004, , .		1
129	Characterize the harmonic emission of nonlinear loads. , 2005, , .		1
130	Distributed Stochastic Power and Rate Allocation for Energy Minimization in Wireless Sensor Networks. , 2006, , .		1
131	Capacity Results for Multiple Access Channels with State and Feedback. , 2006, , .		1
132	Condition Monitoring Based on Estimating Complex Coupling Coefficients. , 2008, , .		1
133	Open Problem—Convergence and Asymptotic Optimality of the Relative Value Iteration in Ergodic Control. Stochastic Systems, 2019, 9, 292-294.	0.8	1
134	Remarks on smooth feedback stabilization of nonlinear systems. , 1986, , .		1
135	On ergodic control problem for viscous Hamilton–Jacobi equations for weakly coupled elliptic systems. Journal of Differential Equations, 2022, 314, 128-160.	1.1	1
136	On System-Wide Safety Staffing of Large-Scale Parallel Server Networks. Operations Research, 2023, 71, 415-432.	1.2	1
137	Analysis of an identification algorithm arising in the adaptive estimation of markov chains. , 1985, , .		0
138	Affine-feedback stabilization of piecewise-linear hypersurface systems. , 1987, , .		0
139	A minimax approach to the nonlinear equalisability problem. IEEE Transactions on Circuits and Systems, 1990, 37, 946-948.	0.9	0
140	Some results on convergence of stochastic approximations by differential inclusion methods. , 0, , .		0
141	An inventory problem with fluctuating demand and production dependent failure rate. , 0, , .		0
142	Safety control of partially observed MDPs with applications to machine maintenance problems. , 0, , .		0
143	On optimal control of Markov chains with safety constraint. , 2006, , .		0
144	On the adaptive control of a class of partially observed Markov decision processes. , 2009, , .		0

#	Article	IF	Citations
145	On the adaptive control of a class of partially observed Markov decision processes. Journal of Mathematical Analysis and Applications, 2011, 380, 1-9.	0.5	0
146	A relative value iteration for controlled diffusions under ergodic cost. , 2012, , .		0
147	Time asymptotic behavior of the HJB equation associated with a class of mean-field games. , 2012, , .		0
148	Stabilization of a quasi-linear parabolic Cauchy problem associated with ergodic control of diffusions. , 2014, , .		0
149	From Collatz-Weilandt to Donkser-Varadhan via Krein-Rutman. , 2014, , .		0
150	Optimal scheduling of a large-scale multiclass parallel server system with ergodic cost. , 2015, , .		0
151	A Correction to â€œA Relative Value Iteration Algorithm for Nondegenerate Controlled Diffusions''. SIAM Journal on Control and Optimization, 2017, 55, 1711-1715.	1.1	0
152	Exponential ergodicity and steady-state approximations for a class of markov processes under fast regime switching. Advances in Applied Probability, 2021, 53, 1-29.	0.4	0
153	Markov decision processes with controlled observations and the sensor querying problem. , 2007, , .		0
154	Adaptive Control and Cost Sensitivity of Stochastic Systems with Continuous State and Parameters, and Logical Controls. , 1991, , .		0
155	â€œControlledâ€•Versions of the Collatzâ€"Wielandt and Donkerâ€"Varadhan Formulae. Infosys Science Foundation Series, 2020, , 199-214.	0.3	0