

Charalambos D

List of Publications by Year in descending order

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151
papers

1,148
citations

393982

19
h-index

500791

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153
all docs

153
docs citations

153
times ranked

497
citing authors

#	ARTICLE	IF	CITATIONS
1	LQG optimality and separation principle for general discrete time partially observed stochastic systems over finite capacity communication channels. <i>Automatica</i> , 2008, 44, 3181-3188.	3.0	63
2	Minimum principle for partially observable nonlinear risk-sensitive control problems using measure-valued decompositions. <i>Stochastic and Stochastics Reports</i> , 1996, 57, 247-288.	0.6	54
3	Stochastic Uncertain Systems Subject to Relative Entropy Constraints: Induced Norms and Monotonicity Properties of Minimax Games. <i>IEEE Transactions on Automatic Control</i> , 2007, 52, 647-663.	3.6	51
4	Control of Continuous-Time Linear Gaussian Systems Over Additive Gaussian Wireless Fading Channels: A Separation Principle. <i>IEEE Transactions on Automatic Control</i> , 2008, 53, 1013-1019.	3.6	44
5	Nonanticipative Rate Distortion Function and Relations to Filtering Theory. <i>IEEE Transactions on Automatic Control</i> , 2014, 59, 937-952.	3.6	41
6	An Algorithm for Global Maximization of Secrecy Rates in Gaussian MIMO Wiretap Channels. <i>IEEE Transactions on Communications</i> , 2015, 63, 2288-2299.	4.9	38
7	Directed Information on Abstract Spaces: Properties and Variational Equalities. <i>IEEE Transactions on Information Theory</i> , 2016, 62, 6019-6052.	1.5	35
8	Classes of Nonlinear Partially Observable Stochastic Optimal Control Problems with Explicit Optimal Control Laws. <i>SIAM Journal on Control and Optimization</i> , 1998, 36, 542-578.	1.1	33
9	On the Compound Capacity of a Class of MIMO Channels Subject to Normed Uncertainty. <i>IEEE Transactions on Information Theory</i> , 2012, 58, 2048-2063.	1.5	33
10	Optimal Signaling for Secure Communications Over Gaussian MIMO Wiretap Channels. <i>IEEE Transactions on Information Theory</i> , 2016, 62, 7207-7215.	1.5	32
11	Zero-Delay Rate Distortion via Filtering for Vector-Valued Gaussian Sources. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2018, 12, 841-856.	7.3	32
12	On optimal signaling over secure MIMO channels. , 2012, , .		31
13	Stochastic Power Control for Time-Varying Long-Term Fading Wireless Networks. <i>Eurasip Journal on Advances in Signal Processing</i> , 2006, 2006, 1.	1.0	28
14	Stochastic Minimum Principle for Partially Observed Systems Subject to Continuous and Jump Diffusion Processes and Driven by Relaxed Controls. <i>SIAM Journal on Control and Optimization</i> , 2013, 51, 3235-3257.	1.1	24
15	Stochastic differential equations for modeling, estimation and identification of mobile-to-mobile communication channels. <i>IEEE Transactions on Wireless Communications</i> , 2009, 8, 1754-1763.	6.1	23
16	Centralized Versus Decentralized Optimization of Distributed Stochastic Differential Decision Systems With Different Information Structures-Part I: A General Theory. <i>IEEE Transactions on Automatic Control</i> , 2017, 62, 1194-1209.	3.6	23
17	Optimal Estimation via Nonanticipative Rate Distortion Function and Applications to Time-Varying Gauss-Markov Processes. <i>SIAM Journal on Control and Optimization</i> , 2018, 56, 3731-3765.	1.1	23
18	Dynamic Programming Subject to Total Variation Distance Ambiguity. <i>SIAM Journal on Control and Optimization</i> , 2015, 53, 2040-2075.	1.1	21

#	ARTICLE	IF	CITATIONS
19	Binding of Sodium Dodecyl Sulfate to Linear and Star Homopolymers of the Nonionic Poly(methoxyhexa(ethylene glycol) methacrylate) and the Polycation Poly(2-(dimethylamino)ethyl) Tj ETQq1 1 0.784314 rgBT /Overlo Small-Angle Neutron Scattering Measurements. Langmuir, 2004, 20, 6458-6469.	1.6	20
20	Extremum Problems With Total Variation Distance and Their Applications. IEEE Transactions on Automatic Control, 2014, 59, 2353-2368.	3.6	20
21	Stability and reliable data reconstruction of uncertain dynamic systems over finite capacity channels. Automatica, 2010, 46, 889-896.	3.0	19
22	Decentralized optimality conditions of stochastic differential decision problems via Girsanov's measure transformation. Mathematics of Control, Signals, and Systems, 2016, 28, 1.	1.4	18
23	Outage Probability Under Channel Distribution Uncertainty. IEEE Transactions on Information Theory, 2012, 58, 6825-6838.	1.5	17
24	Finite-Time Nonanticipative Rate Distortion Function for Time-Varying Scalar-Valued Gauss-Markov Sources. , 2018, 2, 175-180.		16
25	Information Structures for Feedback Capacity of Channels With Memory and Transmission Cost: Stochastic Optimal Control and Variational Equalities. IEEE Transactions on Information Theory, 2018, 64, 4962-4992.	1.5	15
26	Robust coding for a class of sources: Applications in control and reliable communication over limited capacity channels. Systems and Control Letters, 2008, 57, 1005-1012.	1.3	13
27	Novel Matrix Singular Value Inequalities and Their Applications to Uncertain MIMO Channels. IEEE Transactions on Information Theory, 2015, 61, 6623-6634.	1.5	13
28	Optimal Filtering Over Uncertain Wireless Communication Channels. IEEE Signal Processing Letters, 2011, 18, 359-362.	2.1	11
29	Further results on optimal signaling over secure MIMO channels. , 2013, , .		11
30	Optimization of directed information and relations to filtering theory. , 2014, , .		11
31	Sequential Necessary and Sufficient Conditions for Capacity Achieving Distributions of Channels With Memory and Feedback. IEEE Transactions on Information Theory, 2017, 63, 7095-7115.	1.5	11
32	On the application of minimum principle for solving partially observable risk-sensitive control problems. Systems and Control Letters, 1996, 27, 169-179.	1.3	10
33	Robust Linear Quadratic Regulator for uncertain systems. , 2016, , .		10
34	Rank-Deficient Solutions for Optimal Signaling Over Wiretap MIMO Channels. IEEE Transactions on Communications, 2016, 64, 2400-2411.	4.9	10
35	Information Transfer of Control Strategies: Dualities of Stochastic Optimal Control Theory and Feedback Capacity of Information Theory. IEEE Transactions on Automatic Control, 2017, 62, 5010-5025.	3.6	10
36	Information Theoretic Bounds for Compound MIMO Gaussian Channels. IEEE Transactions on Information Theory, 2009, 55, 1603-1617.	1.5	9

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37	Directed information on abstract spaces: Properties and extremum problems. , 2012, , .		9
38	Filtering with fidelity for time-varying Gauss-Markov processes. , 2016, , .		9
39	Capacity Achieving Distributions and Separation Principle for Feedback Gaussian Channels With Memory: the LQG Theory of Directed Information. IEEE Transactions on Information Theory, 2018, 64, 6384-6418.	1.5	9
40	Infinite Horizon Average Cost Dynamic Programming Subject to Total Variation Distance Ambiguity. SIAM Journal on Control and Optimization, 2019, 57, 2843-2872.	1.1	9
41	Optimization of stochastic uncertain systems with variational norm constraints. , 2007, , .		8
42	Discrete-time Risk-sensitive Filters with Non-Gaussian Initial Conditions and Their Ergodic Properties. Asian Journal of Control, 2001, 3, 262-271.	1.9	8
43	Capacity of Binary State Symmetric Channel with and without feedback and transmission cost. , 2015, , .		8
44	Structural Properties of Nonanticipatory Epsilon Entropy of Multivariate Gaussian Sources. , 2020, , .		8
45	New explicit filters and smoothers for diffusions with nonlinear drift and measurements. Systems and Control Letters, 1998, 33, 89-103.	1.3	7
46	Optimal Control of Uncertain Stochastic Systems Subject to Total Variation Distance Uncertainty. SIAM Journal on Control and Optimization, 2012, 50, 2683-2725.	1.1	7
47	Noncoherent Energy Detection With Orthogonal Signaling for an Uncoded Two-Way Relay Channel. IEEE Transactions on Vehicular Technology, 2012, 61, 404-409.	3.9	7
48	Equivalence of decentralized stochastic dynamic decision systems via Girsanov's measure transformation. , 2014, , .		7
49	Information Nonanticipative Rate Distortion Function and Its Applications. Lecture Notes in Control and Information Sciences, 2015, , 317-324.	0.6	7
50	Nonlinear Estimation for a Class of Systems. IEEE Transactions on Information Theory, 2009, 55, 1930-1938.	1.5	6
51	Capacity of the Class of MIMO Channels With Incomplete CDI Properties of Mutual Information for a Class of Channels. IEEE Transactions on Information Theory, 2009, 55, 3725-3734.	1.5	6
52	Nonanticipative transmission for sources and channels with memory. , 2015, , .		6
53	A General Formula for Compound Channel Capacity. IEEE Transactions on Information Theory, 2016, 62, 3971-3991.	1.5	6
54	An upper bound to zero-delay rate distortion via Kalman filtering for vector Gaussian sources. , 2017, , .		6

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55	Centralized Versus Decentralized Optimization of Distributed Stochastic Differential Decision Systems With Different Information Structures—Part II: Applications. IEEE Transactions on Automatic Control, 2018, 63, 1913-1928.	3.6	6
56	Estimation of mobile station position and velocity in multipath wireless networks using the unscented particle filter. , 2007, , .		5
57	Optimal encoder and control strategies in stochastic control subject to rate constraints for channels with memory and feedback. , 2011, , .		5
58	Rank-deficient solutions for optimal signaling over secure MIMO channels. , 2014, , .		5
59	Generalizations of Nonanticipative Rate Distortion Function to Multivariate Nonstationary Gaussian Autoregressive Processes. , 2019, , .		5
60	Jump LQR Systems With Unknown Transition Probabilities. IEEE Transactions on Automatic Control, 2021, 66, 2693-2708.	3.6	5
61	Distributed Stochastic Power Control for Time-Varying Long-Term and Short-Term Fading Wireless Networks. Proceedings of the American Control Conference, 2007, , .	0.0	4
62	Capacity of channels with memory and feedback: Encoder properties and dynamic programming. , 2010, , .		4
63	Stochastic optimal control of discrete-time systems subject to conditional distribution uncertainty. , 2011, , .		4
64	Variational equalities of directed information and applications. , 2013, , .		4
65	Dynamic team optimality conditions of distributed stochastic differential decision systems with decentralized noisy information structures. , 2013, , .		4
66	Applications of information Nonanticipative Rate Distortion Function. , 2014, , .		4
67	Team Optimality Conditions of Distributed Stochastic Differential Decision Systems With Decentralized Noisy Information Structures. IEEE Transactions on Automatic Control, 2017, 62, 708-723.	3.6	4
68	Approximation of Markov Processes by Lower Dimensional Processes via Total Variation Metrics. IEEE Transactions on Automatic Control, 2017, 62, 1030-1045.	3.6	4
69	The capacity of unstable dynamical systems-interaction of control and information transmission. , 2017, , .		4
70	Control-Coding Capacity of Decision Models Driven by Correlated Noise and Gaussian Application Examples. , 2018, , .		4
71	Characterization of Conditional Independence and Weak Realizations of Multivariate Gaussian Random Variables: Applications to Networks. , 2020, , .		4
72	A Distributionally Robust LQR for Systems with Multiple Uncertain Players. , 2021, , .		4

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73	Information Capacity of MIMO Channels with Relative Entropy Constraint. , 2006, , .		3
74	Time Varying Wireless Channel Modeling, Estimation, Identification, and Power Control from Measurements. Proceedings of the American Control Conference, 2007, , .	0.0	3
75	On the capacity of a class of MIMO channels subject to normed uncertainty. , 2008, , .		3
76	Information Theoretic Modeling and Analysis for Global Interconnects With Process Variations. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2011, 19, 397-410.	2.1	3
77	Mutual Information Expansion for MIMO Systems and Capacity Formulae at Low SNR. IEEE Communications Letters, 2011, 15, 329-331.	2.5	3
78	Hierarchical decomposition of optimal control and information strategies in control-coding capacity of stochastic systems. , 2017, , .		3
79	New Formulas of Ergodic Feedback Capacity of AGN Channels Driven by Stable and Unstable Autoregressive Noise. , 2020, , .		3
80	Necessary Conditions of Optimization for Partially Observed Controlled Diffusions. SIAM Journal on Control and Optimization, 1999, 37, 1676-1700.	1.1	2
81	Control of Jump Linear Systems Over Jump Communication Channels - Source-Channel Matching Approach. , 2007, , .		2
82	Robust control of a class of feedback systems subject to limited capacity constraints. , 2007, , .		2
83	Optimal control of a two-wheeled mobile robot via finite capacity communication channel. , 2008, , .		2
84	Infinite horizon average cost dynamic programming subject to ambiguity on conditional distribution. , 2015, , .		2
85	Information transfer in stochastic optimal control with randomized strategies and directed information criterion. , 2016, , .		2
86	Feedback does not increase the capacity of compound channels with additive noise. , 2016, , .		2
87	Asymptotic Reverse-Waterfilling Characterization of Nonanticipative Rate Distortion Function of Vector-Valued Gauss-Markov Processes with MSE Distortion. , 2018, , .		2
88	Robust LQG for Markov Jump Linear Systems. , 2019, , .		2
89	Ergodic Control-Coding Capacity of Stochastic Control Systems: Information Signalling and Hierarchical Optimality of Gaussian Systems. SIAM Journal on Control and Optimization, 2020, 58, 104-135.	1.1	2
90	Nonlinear Estimation for a Class of Systems. , 2006, , .		1

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91	Supervisory and Notification Aggregator Service Enabler in a Fixed Mobile Convergent Architecture. , 2007, , .		1
92	Statistical Analysis of Multipath Fading Channels Using Generalizations of Shot Noise. Eurasip Journal on Wireless Communications and Networking, 2008, 2008, .	1.5	1
93	Least-square estimation for nonlinear systems with applications to phase and envelope estimation in wireless fading channels. , 2008, , .		1
94	Dynamic demographic models and parameter identification: Simulations based on statistical data. , 2009, , .		1
95	Minimizing outage probability for a class of MIMO channels. , 2009, , .		1
96	Stochastic control over finite capacity channels: Causality, feedback and uncertainty. , 2009, , .		1
97	Optimal stochastic control of discrete-time systems subject to total variation distance uncertainty. , 2010, , .		1
98	Estimation and identification of time-varying long-term fading channels via the particle filter and the EM algorithm. , 2011, , .		1
99	Lossless coding with generalized criteria. , 2011, , .		1
100	Ergodic capacity under channel distribution uncertainty. , 2014, , .		1
101	Approximation of Markov processes by lower dimensional processes. , 2014, , .		1
102	A general formula for compound channel capacity. , 2015, , .		1
103	Hierarchical optimality of linear controllers-encoders-decoders operating at control-coding capacity of LQG control systems. , 2017, , .		1
104	A General Coding Scheme for Signaling Gaussian Processes Over Gaussian Decision Models. , 2018, , .		1
105	From Feedback Capacity to Tight Achievable Rates without Feedback for AGN Channels with Stable and Unstable Autoregressive Noise. , 2020, , .		1
106	Large deviations and deterministic measures of information. , 2003, , .		1
107	Nonanticipative Duality of Sources and Channels with Memory and Feedback. Lecture Notes in Control and Information Sciences, 2015, , 325-335.	0.6	1
108	Complete Characterization of Gorbunov and Pinsker Nonanticipatory Epsilon Entropy of Multivariate Gaussian Sources: Structural Properties. IEEE Transactions on Information Theory, 2022, 68, 1440-1464.	1.5	1

#	ARTICLE	IF	CITATIONS
109	Sequential Characterizations of Cover and Pombra Gaussian Feedback Capacity: Generalizations to MIMO Channels via Sufficient Statistic. , 2021, , .		1
110	Lie algebraic methods in optimal control of stochastic systems with exponential-of-integral cost. Systems and Control Letters, 1999, 37, 93-105.	1.3	0
111	Fault Monitoring of Control Systems with Abrupt Changes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 1023-1028.	0.4	0
112	Is robustness of stochastic uncertain systems related to information theory and statistical mechanics? (Keynote Address). , 2005, 5847, 88.		0
113	Quadratic forms for Feynmanâ€™Kac semigroups. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 353, 446-451.	0.9	0
114	Estimation and identification of time-varying long-term fading wireless channels with application to power control. , 2007, , .		0
115	Stochastic Wireless Channel Modeling, Estimation and Identification from Measurements. AIP Conference Proceedings, 2008, , .	0.3	0
116	Robust stabilizing scheme for uncertain systems controlled over limited capacity Additive White Gaussian Noise channels. , 2008, , .		0
117	Robust estimation with applications to phase and envelope estimation in frequency selective wireless fading channels. , 2008, , .		0
118	Stochastic optimal control subject to variational norm uncertainty: viscosity subsolution for generalized HJB inequality. , 2009, , .		0
119	Rate distortion function with causal decoding. , 2010, , .		0
120	Capacity for MIMO systems at low SNR. , 2010, , .		0
121	Minimax rate distortion for a class of sources. , 2010, , .		0
122	Outage capacity and probability for a class of MIMO channels. , 2010, , .		0
123	Optimum immigration policies based on Linear Quadratic Theory. , 2010, , .		0
124	A low-cost non-coherent transmission for uncoded two-way relay channels. , 2011, , .		0
125	Outage probability under channel distribution uncertainty. , 2011, , .		0
126	Stochastic Optimal Control Subject to Ambiguity. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 4459-4464.	0.4	0

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127	Optimal Encoders Maximizing Directed Information of Channels with Memory and Feedback: Stochastic Control and Dynamic Programming. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6598-6603.	0.4	0
128	Dynamic programming with total variational distance uncertainty. , 2012, , .		0
129	Optimization of stochastic uncertain systems: Entropy rate functionals, minimax games and robustness. Advances in Statistics, Probability and Actuarial Science, 2012, , 465-502.	0.2	0
130	Special issue on control, communication, and complexity. Mathematics of Control, Signals, and Systems, 2013, 25, 433-436.	1.4	0
131	Encoder, controller and decoder design of jump linear systems over jump communication channels. , 2013, , .		0
132	Extremum problems with total variation distance. , 2013, , .		0
133	Maximum principle for decentralized stochastic differential decision systems. , 2014, , .		0
134	Team optimality conditions of differential decision systems with nonclassical information structures. , 2014, , .		0
135	Optimal Merging Algorithms for Lossless Codes With Generalized Criteria. IEEE Transactions on Information Theory, 2014, 60, 5486-5499.	1.5	0
136	A sufficient condition for decentralized non-cooperative stochastic differential games and relations to mean field games. , 2015, , .		0
137	Decentralized sufficient & necessary optimality conditions for cooperative stochastic differential decision problems. , 2016, , .		0
138	Infinite horizon discounted dynamic programming subject to total variation ambiguity on conditional distribution. , 2016, , .		0
139	Two-letter capacity formula for channels with memory and feedback. , 2017, , .		0
140	Signalling of information in networked stochastic dynamical control systems. , 2017, , .		0
141	A Sufficient Condition for General Decentralized Cooperative Stochastic Differential Games. , 2018, , .		0
142	Concepts, Decompositions, and Optimal Control Laws for a Gaussian Team Problem. , 2019, , .		0
143	Time-varying optimal disturbance rejection in presence of plant uncertainty. , 2007, , .		0
144	Stochastic optimal control subject to variational norm uncertainty: Dynamic programming and HJB equation. , 2009, , .		0

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145	Stochastic control over finite capacity channels: Causality and feedback. , 2009, , .		0
146	On the relation of nonanticipative rate distortion function and filtering theory. , 2013, , .		0
147	On Shannon's Duality of a Source and a Channel and Nonanticipative Communication and Communication for Control. Lecture Notes in Control and Information Sciences, 2015, , 291-305.	0.6	0
148	Directed Information Subject to a Fidelity. Applications to Conditionally Gaussian Processes. , 2018, , .		0
149	Canonical Dynamic Programming Equations subject to Ambiguity. IFAC-PapersOnLine, 2020, 53, 7166-7171.	0.5	0
150	Joint Nonanticipative Rate Distortion Function for a Tuple of Random Processes with Individual Fidelity Criteria. , 2021, , .		0
151	Linear Quadratic Tracking Control of Hidden Markov Jump Linear Systems Subject to Ambiguity. , 2021, , .		0