Charalambos D

List of Publications by Year
in descending order

		394421	501196
151 papers	1,148 citations	19 h-index	28 g-index
153 all docs	153 docs citations	153 times ranked	497 citing authors

#	ARTICLE	IF	CITATIONS
1	Complete Characterization of Gorbunov and Pinsker Nonanticipatory Epsilon Entropy of Multivariate Gaussian Sources: Structural Properties. IEEE Transactions on Information Theory, 2022, 68, 1440-1464.	2.4	1
2	Jump LQR Systems With Unknown Transition Probabilities. IEEE Transactions on Automatic Control, 2021, 66, 2693-2708.	5.7	5
3	Sequential Characterizations of Cover and Pombra Gaussian Feedback Capacity: Generalizations to MIMO Channels via Sufficient Statistic. , 2021, , .		1
4	A Distributionally Robust LQR for Systems with Multiple Uncertain Players. , 2021, , .		4
5	Joint Nonanticipative Rate Distortion Function for a Tuple of Random Processes with Individual Fidelity Criteria. , 2021, , .		0
6	Linear Quadratic Tracking Control of Hidden Markov Jump Linear Systems Subject to Ambiguity. , 2021, , .		0
7	From Feedback Capacity to Tight Achievable Rates without Feedback for AGN Channels with Stable and Unstable Autoregressive Noise. , 2020, , .		1
8	Characterization of Conditional Independence and Weak Realizations of Multivariate Gaussian Random Variables: Applications to Networks. , 2020, , .		4
9	Structural Properties of Nonanticipatory Epsilon Entropy of Multivariate Gaussian Sources. , 2020, , .		8
10	New Formulas of Ergodic Feedback Capacity of AGN Channels Driven by Stable and Unstable Autoregressive Noise. , 2020, , .		3
11	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.	2.1	2
12	Canonical Dynamic Programming Equations subject to Ambiguity. IFAC-PapersOnLine, 2020, 53, 7166-7171.	0.9	0
13	Infinite Horizon Average Cost Dynamic Programming Subject to Total Variation Distance Ambiguity. SIAM Journal on Control and Optimization, 2019, 57, 2843-2872.	2.1	9
14	Robust LQG for Markov Jump Linear Systems. , 2019, , .		2
15	Concepts, Decompositions, and Optimal Control Laws for a Gaussian Team Problem. , 2019, , .		0
16	Generalizations of Nonanticipative Rate Distortion Function to Multivariate Nonstationary Gaussian Autoregressive Processes. , 2019, , .		5
17	Finite-Time Nonanticipative Rate Distortion Function for Time-Varying Scalar-Valued Gauss-Markov Sources. , 2018, 2, 175-180.		16
18	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.	2.4	15

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19	Centralized Versus Decentralized Optimization of Distributed Stochastic Differential Decision Systems With Different Information Structuresâ€"Part II: Applications. IEEE Transactions on Automatic Control, 2018, 63, 1913-1928.	5.7	6
20	Control-Coding Capacity of Decision Models Driven by Correlated Noise and Gaussian Application Examples. , 2018, , .		4
21	Asymptotic Reverse-Waterfilling Characterization of Nonanticipative Rate Distortion Function of Vector-Valued Gauss-Markov Processes with MSE Distortion. , 2018, , .		2
22	A Sufficient Condition for General Decentralized Cooperative Stochastic Differential Games. , 2018, , .		0
23	Optimal Estimation via Nonanticipative Rate Distortion Function and Applications to Time-Varying Gauss--Markov Processes. SIAM Journal on Control and Optimization, 2018, 56, 3731-3765.	2.1	23
24	A General Coding Scheme for Signaling Gaussian Processes Over Gaussian Decision Models. , 2018, , .		1
25	Zero-Delay Rate Distortion via Filtering for Vector-Valued Gaussian Sources. IEEE Journal on Selected Topics in Signal Processing, 2018, 12, 841-856.	10.8	32
26	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.	2.4	9
27	Directed Information Subject to a Fidelity. Applications to Conditionally Gaussian Processes. , 2018, , .		0
28	Team Optimality Conditions of Distributed Stochastic Differential Decision Systems With Decentralized Noisy Information Structures. IEEE Transactions on Automatic Control, 2017, 62, 708-723.	5.7	4
29	Approximation of Markov Processes by Lower Dimensional Processes via Total Variation Metrics. IEEE Transactions on Automatic Control, 2017, 62, 1030-1045.	5.7	4
30	Centralized Versus Decentralized Optimization of Distributed Stochastic Differential Decision Systems With Different Information Structures-Part I: A General Theory. IEEE Transactions on Automatic Control, 2017, 62, 1194-1209.	5.7	23
31	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.	5.7	10
32	Sequential Necessary and Sufficient Conditions for Capacity Achieving Distributions of Channels With Memory and Feedback. IEEE Transactions on Information Theory, 2017, 63, 7095-7115.	2.4	11
33	Two-letter capacity formula for channels with memory and feedback. , 2017, , .		0
34	The capacity of unstable dynamical systems-interaction of control and information transmission. , 2017, , .		4
35	An upper bound to zero-delay rate distortion via Kalman filtering for vector Gaussian sources. , 2017, , .		6
36	Hierarchical decomposition of optimal control and information strategies in control-coding capacity of stochastic systems. , 2017, , .		3

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37	Signalling of information in networked stochastic dynamical control systems. , 2017, , .		0
38	Hierarchical optimality of linear controllers-encoders-decoders operating at control-coding capacity of LQG control systems. , 2017, , .		1
39	Decentralized sufficient & necessary optimality conditions for cooperative stochastic differential decision problems. , 2016, , .		0
40	Filtering with fidelity for time-varying Gauss-Markov processes. , 2016, , .		9
41	Robust Linear Quadratic Regulator for uncertain systems. , 2016, , .		10
42	Information transfer in stochastic optimal control with randomized strategies and directed information criterion. , 2016, , .		2
43	Infinite horizon discounted dynamic programming subject to total variation ambiguity on conditional distribution. , 2016, , .		0
44	Rank-Deficient Solutions for Optimal Signaling Over Wiretap MIMO Channels. IEEE Transactions on Communications, 2016, 64, 2400-2411.	7.8	10
45	Decentralized optimality conditions of stochastic differential decision problems via Girsanovâ€™s measure transformation. Mathematics of Control, Signals, and Systems, 2016, 28, 1.	2.3	18
46	Feedback does not increase the capacity of compound channels with additive noise. , 2016, , .		2
47	Optimal Signaling for Secure Communications Over Gaussian MIMO Wiretap Channels. IEEE Transactions on Information Theory, 2016, 62, 7207-7215.	2.4	32
48	Directed Information on Abstract Spaces: Properties and Variational Equalities. IEEE Transactions on Information Theory, 2016, 62, 6019-6052.	2.4	35
49	A General Formula for Compound Channel Capacity. IEEE Transactions on Information Theory, 2016, 62, 3971-3991.	2.4	6
50	Nonanticipative transmission for sources and channels with memory. , 2015, , .		6
51	Capacity of Binary State Symmetric Channel with and without feedback and transmission cost. , 2015, , .		8
52	A general formula for compound channel capacity. , 2015, , .		1
53	A sufficient condition for decentralized non-cooperative stochastic differential games and relations to mean field games. , 2015, , .		0
54	Infinite horizon average cost dynamic programming subject to ambiguity on conditional distribution. , 2015, , .		2

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55	Novel Matrix Singular Value Inequalities and Their Applications to Uncertain MIMO Channels. IEEE Transactions on Information Theory, 2015, 61, 6623-6634.	2.4	13
56	An Algorithm for Global Maximization of Secrecy Rates in Gaussian MIMO Wiretap Channels. IEEE Transactions on Communications, 2015, 63, 2288-2299.	7.8	38
57	Dynamic Programming Subject to Total Variation Distance Ambiguity. SIAM Journal on Control and Optimization, 2015, 53, 2040-2075.	2.1	21
58	Information Nonanticipative Rate Distortion Function and Its Applications. Lecture Notes in Control and Information Sciences, 2015, , 317-324.	1.0	7
59	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.	1.0	0
60	Nonanticipative Duality of Sources and Channels with Memory and Feedback. Lecture Notes in Control and Information Sciences, 2015, , 325-335.	1.0	1
61	Applications of information Nonanticipative Rate Distortion Function. , 2014, , .		4
62	Maximum principle for decentralized stochastic differential decision systems. , 2014, , .		0
63	Ergodic capacity under channel distribution uncertainty. , 2014, , .		1
64	Team optimality conditions of differential decision systems with nonclasssical information structures. , 2014, , .		0
65	Optimization of directed information and relations to filtering theory. , 2014, , .		11
66	Rank-deficient solutions for optimal signaling over secure MIMO channels. , 2014, , .		5
67	Nonanticipative Rate Distortion Function and Relations to Filtering Theory. IEEE Transactions on Automatic Control, 2014, 59, 937-952.	5.7	41
68	Extremum Problems With Total Variation Distance and Their Applications. IEEE Transactions on Automatic Control, 2014, 59, 2353-2368.	5.7	20
69	Optimal Merging Algorithms for Lossless Codes With Generalized Criteria. IEEE Transactions on Information Theory, 2014, 60, 5486-5499.	2.4	0
70	Equivalence of decentralized stochastic dynamic decision systems via Girsanov's measure transformation. , 2014, , .		7
71	Approximation of Markov processes by lower dimensional processes. , 2014, , .		1
72	Stochastic Minimum Principle for Partially Observed Systems Subject to Continuous and Jump Diffusion Processes and Driven by Relaxed Controls. SIAM Journal on Control and Optimization, 2013, 51, 3235-3257.	2.1	24

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73	Special issue on control, communication, and complexity. Mathematics of Control, Signals, and Systems, 2013, 25, 433-436.	2.3	0
74	Encoder, controller and decoder design of jump linear systems over jump communication channels. , 2013, , .		0
75	Extremum problems with total variation distance. , 2013, , .		0
76	Further results on optimal signaling over secure MIMO channels. , 2013, , .		11
77	Variational equalities of directed information and applications. , 2013, , .		4
78	Dynamic team optimality conditions of distributed stochastic differential decision systems with decentralized noisy information structures. , 2013, , .		4
79	On the relation of nonanticipative rate distortion function and filtering theory. , 2013, , .		0
80	Dynamic programming with total variational distance uncertainty. , 2012, , .		0
81	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
82	On optimal signaling over secure MIMO channels. , 2012, , .		31
83	Directed information on abstract spaces: Properties and extremum problems. , 2012, , .		9
84	Outage Probability Under Channel Distribution Uncertainty. IEEE Transactions on Information Theory, 2012, 58, 6825-6838.	2.4	17
85	Optimal Control of Uncertain Stochastic Systems Subject to Total Variation Distance Uncertainty. SIAM Journal on Control and Optimization, 2012, 50, 2683-2725.	2.1	7
86	Noncoherent Energy Detection With Orthogonal Signaling for an Uncoded Two-Way Relay Channel. IEEE Transactions on Vehicular Technology, 2012, 61, 404-409.	6.3	7
87	On the Compound Capacity of a Class of MIMO Channels Subject to Normed Uncertainty. IEEE Transactions on Information Theory, 2012, 58, 2048-2063.	2.4	33
88	A low-cost non-coherent transmission for uncoded two-way relay channels. , 2011, , .		0
89	Optimal Filtering Over Uncertain Wireless Communication Channels. IEEE Signal Processing Letters, 2011, 18, 359-362.	3.6	11
90	Outage probability under channel distribution uncertainty. , 2011, , .		0

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91	Estimation and identification of time-varying long-term fading channels via the particle filter and the EM algorithm. , 2011, , .		1
92	Information Theoretic Modeling and Analysis for Global Interconnects With Process Variations. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2011, 19, 397-410.	3.1	3
93	Mutual Information Expansion for MIMO Systems and Capacity Formulae at Low SNR. IEEE Communications Letters, 2011, 15, 329-331.	4.1	3
94	Stochastic Optimal Control Subject to Ambiguity. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 4459-4464.	0.4	0
95	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
96	Stochastic optimal control of discrete-time systems subject to conditional distribution uncertainty. , 2011, , .		4
97	Lossless coding with generalized criteria. , 2011, , .		1
98	Optimal encoder and control strategies in stochastic control subject to rate constraints for channels with memory and feedback. , 2011, , .		5
99	Stability and reliable data reconstruction of uncertain dynamic systems over finite capacity channels. Automatica, 2010, 46, 889-896.	5.0	19
100	Optimal stochastic control of discrete-time systems subject to total variation distance uncertainty. , 2010, , .		1
101	Capacity of channels with memory and feedback: Encoder properties and dynamic programming. , 2010, , .		4
102	Rate distortion function with causal decoding. , 2010, , .		0
103	Capacity for MIMO systems at low SNR. , 2010, , .		0
104	Minimax rate distortion for a class of sources. , 2010, , .		0
105	Outage capacity and probability for a class of MIMO channels. , 2010, , .		0
106	Optimum immigration policies based on Linear Quadratic Theory. , 2010, , .		0
107	Dynamic demographic models and parameter identification: Simulations based on statistical data. , 2009, , .		1
108	Minimizing outage probability for a class of MIMO channels. , 2009, , .		1

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109	Stochastic control over finite capacity channels: Causality, feedback and uncertainty. , 2009, , .		1
110	Stochastic optimal control subject to variational norm uncertainty: viscosity subsolution for generalized HJB inequality. , 2009, , .		0
111	Information Theoretic Bounds for Compound MIMO Gaussian Channels. IEEE Transactions on Information Theory, 2009, 55, 1603-1617.	2.4	9
112	Nonlinear Estimation for a Class of Systems. IEEE Transactions on Information Theory, 2009, 55, 1930-1938.	2.4	6
113	Capacity of the Class of MIMO Channels With Incomplete CDIâ€"Properties of Mutual Information for a Class of Channels. IEEE Transactions on Information Theory, 2009, 55, 3725-3734.	2.4	6
114	Stochastic differential equations for modeling, estimation and identification of mobile-to-mobile communication channels. IEEE Transactions on Wireless Communications, 2009, 8, 1754-1763.	9.2	23
115	Stochastic optimal control subject to variational norm uncertainty: Dynamic programming and HJB equation. , 2009, , .		0
116	Stochastic control over finite capacity channels: Causality and feedback. , 2009, , .		0
117	LQG optimality and separation principle for general discrete time partially observed stochastic systems over finite capacity communication channels. Automatica, 2008, 44, 3181-3188.	5.0	63
118	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.	2.3	13
119	Optimal control of a two-wheeled mobile robot via finite capacity communication channel. , 2008, , .		2
120	Control of Continuous-Time Linear Gaussian Systems Over Additive Gaussian Wireless Fading Channels: A Separation Principle. IEEE Transactions on Automatic Control, 2008, 53, 1013-1019.	5.7	44
121	On the capacity of a class of MIMO channels subject to normed uncertainty. , 2008, , .		3
122	Statistical Analysis of Multipath Fading Channels Using Generalizations of Shot Noise. Eurasip Journal on Wireless Communications and Networking, 2008, 2008, .	2.4	1
123	Stochastic Wireless Channel Modeling, Estimation and Identification from Measurements. AIP Conference Proceedings, 2008, , .	0.4	0
124	Robust stabilizing scheme for uncertain systems controlled over limited capacity Additive White Gaussian Noise channels. , 2008, , .		0
125	Least-square estimation for nonlinear systems with applications to phase and envelope estimation in wireless fading channels. , 2008, , .		1
126	Robust estimation with applications to phase and envelope estimation in frequency selective wireless fading channels. , 2008, , .		0

#	Article	IF	Citations
127	Control of Jump Linear Systems Over Jump Communication Channels - Source-Channel Matching Approach. , 2007, , .		2
128	Estimation of mobile station position and velocity in multipath wireless networks using the unscented particle filter. , 2007, , .		5
129	Time Varying Wireless Channel Modeling, Estimation, Identification, and Power Control from Measurements. Proceedings of the American Control Conference, 2007, , .	0.0	3
130	Supervisory and Notification Aggregator Service Enabler in a Fixed Mobile Convergent Architecture. , 2007, , .		1
131	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
132	Robust control of a class of feedback systems subject to limited capacity constraints. , 2007, , .		2
133	Optimization of stochastic uncertain systems with variational norm constraints. , 2007, , .		8
134	Stochastic Uncertain Systems Subject to Relative Entropy Constraints: Induced Norms and Monotonicity Properties of Minimax Games. IEEE Transactions on Automatic Control, 2007, 52, 647-663.	5.7	51
135	Estimation and identification of time-varying long-term fading wireless channels with application to power control. , 2007, , .		0
136	Time-varying optimal disturbance rejection in presence of plant uncertainty. , 2007, , .		0
137	Nonlinear Estimation for a Class of Systems. , 2006, , .		1
138	Information Capacity of MIMO Channels with Relative Entropy Constraint. , 2006, , .		3
139	Stochastic Power Control for Time-Varying Long-Term Fading Wireless Networks. Eurasip Journal on Advances in Signal Processing, 2006, 2006, 1.	1.7	28
140	Quadratic forms for Feynman–Kac semigroups. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 353, 446-451.	2.1	0
141	Is robustness of stochastic uncertain systems related to information theory and statistical mechanics? (Keynote Address). , 2005, 5847, 88.		0
142	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 ETQq0 0 0 rgBT /Overlock 10 Tf 50 Small-Angle Neutron Scattering Measurements. Langmuir, 2004, 20, 6458-6469.	3.5	20
143	Large deviations and deterministic measures of information. , 2003, , .		1
144	Discrete–Time Risk–Sensitive Filters with Non–Gaussian Initial Conditions and Their Ergodic Properties. Asian Journal of Control, 2001, 3, 262-271.	3.0	8

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145	Fault Monitoring of Control Systems with Abrupt Changes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 1023-1028.	0.4	0
146	Lie algebraic methods in optimal control of stochastic systems with exponential-of-integral cost. Systems and Control Letters, 1999, 37, 93-105.	2.3	0
147	Necessary Conditions of Optimization for Partially Observed Controlled Diffusions. SIAM Journal on Control and Optimization, 1999, 37, 1676-1700.	2.1	2
148	New explicit filters and smoothers for diffusions with nonlinear drift and measurements. Systems and Control Letters, 1998, 33, 89-103.	2.3	7
149	Classes of Nonlinear Partially Observable Stochastic Optimal Control Problems with Explicit Optimal Control Laws. SIAM Journal on Control and Optimization, 1998, 36, 542-578.	2.1	33
150	On the application of minimum principle for solving partially observable risk-sensitive control problems. Systems and Control Letters, 1996, 27, 169-179.	2.3	10
151	Minimum principle for partially observable nonlinear risk-sensitive control problems using measure-valued decompositions. Stochastic and Stochastics Reports, 1996, 57, 247-288.	0.6	54