

# John S Baras

## List of Publications by Year in descending order

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Version: 2024-02-01

128  
papers

892  
citations

1306789

7  
h-index

1058022

14  
g-index

129  
all docs

129  
docs citations

129  
times ranked

827  
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling the Role of the Glymphatic Pathway and Cerebral Blood Vessel Properties in Alzheimer's Disease Pathogenesis. PLoS ONE, 2015, 10, e0139574.	1.1	67
2	Multiple Sampling for Estimation on a Finite Horizon. , 2006, , .		50
3	RFID-based smart parking management system. Cyber-Physical Systems, 2017, 3, 22-41.	1.6	43
4	Almost sure convergence to consensus in Markovian random graphs. , 2008, , .		32
5	HybridSim: A Modeling and Co-simulation Toolchain for Cyber-physical Systems. , 2013, , .		27
6	Timed automata approach for motion planning using metric interval temporal logic. , 2016, , .		26
7	Optimal LQG Control Under Delay-Dependent Costly Information. , 2019, 3, 102-107.		26
8	Efficient and robust communication topologies for distributed decision making in networked systems. , 2009, , .		25
9	Consensus problems with directed Markovian communication patterns. , 2009, , .		23
10	Robust State Estimation under False Data Injection in Distributed Sensor Networks. , 2010, , .		23
11	Voice Interface Technology Adoption by Patients With Heart Failure: Pilot Comparison Study. JMIR MHealth and UHealth, 2021, 9, e24646.	1.8	21
12	Reachable set approach to collision avoidance for UAVs. , 2015, , .		19
13	Performance-Aware Cross-Layer Design in Wireless Multihop Networks Via a Weighted Backpressure Approach. IEEE/ACM Transactions on Networking, 2016, 24, 245-258.	2.6	17
14	Joint Satellite Gateway Placement and Routing for Integrated Satellite-Terrestrial Networks. , 2020, , .		15
15	Fundamental Tradeoffs and Constrained Coalitional Games in Autonomic Wireless Networks. , 2007, , .		14
16	Trust-Aware Service Chain Embedding. , 2019, , .		14
17	Constrained coalitional games and networks of autonomous agents. , 2008, , .		13
18	Value of Information in Feedback Control: Quantification. IEEE Transactions on Automatic Control, 2022, 67, 3730-3737.	3.6	13

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19	Convergence guarantees for a decentralized algorithm achieving pareto optimality. , 2013, , .		12
20	A simple proof of the continuous time linear consensus problem with applications in non-linear flocking networks. , 2015, , .		12
21	Optimal Event-Triggered Control of Nondeterministic Linear Systems. IEEE Transactions on Automatic Control, 2020, 65, 604-619.	3.6	12
22	A Cross-Layer Optimal Co-Design of Control and Networking in Time-Sensitive Cyber-Physical Systems. , 2021, 5, 917-922.		12
23	Level-triggered control of a scalar linear system. , 2007, , .		11
24	Delay-Sensitive Joint Optimal Control and Resource Management in Multiloop Networked Control Systems. IEEE Transactions on Control of Network Systems, 2021, 8, 1093-1106.	2.4	11
25	A distributed learning algorithm with bit-valued communications for multi-agent welfare optimization. , 2013, , .		10
26	Utility-based almost blank subframe optimization in heterogeneous cellular networks. , 2014, , .		10
27	Event based control of stochastic linear systems. , 2015, , .		10
28	A Robust, Distributed TGDH-based Scheme for Secure Group Communications in MANET. , 2006, , .		9
29	Dynamic observers as asymptotic limits of recursive filters. , 1982, , .		8
30	Trust-assisted anomaly detection and localization in wireless sensor networks. , 2011, , .		8
31	Authentication of Swipe Fingerprint Scanners. IEEE Transactions on Information Forensics and Security, 2017, 12, 2212-2226.	4.5	8
32	Effects of topology in networked systems: Stochastic methods and small worlds. , 2008, , .		7
33	Integrated Modeling and Simulation Framework for Wireless Sensor Networks. , 2012, , .		7
34	Minimizing aggregation latency under the physical interference model in Wireless Sensor Networks. , 2012, , .		7
35	Event based control for control affine nonlinear systems: A Lyapunov function based approach. , 2015, , .		7
36	Trust-aware optimal crowdsourcing with budget constraint. , 2015, , .		7

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37	Time varying control set design for UAV collision avoidance using reachable tubes. , 2016, , .		7
38	Inferring Particle Interaction Physical Models and Their Dynamical Properties. , 2019, , .		7
39	Online Deterministic Annealing for Classification and Clustering. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 7125-7134.	7.2	7
40	Group invariance methods in nonlinear filtering of diffusion processes. , 1980, , .		6
41	Broadcast Scheduling for Time-Constrained Information Delivery. , 2007, , .		6
42	Trust Credential Distribution in Autonomic Networks. , 2008, , .		6
43	Motif-based communication network formation for task specific collaboration in complex environments. , 2011, , .		6
44	A graph theoretic mathematical model for Alzheimer's disease: Using a systems biology approach. , 2012, , .		6
45	Reachability analysis for linear discrete time set-dynamics driven by random convex compact sets. , 2012, , .		6
46	Social network ad allocation via hyperbolic embedding. , 2014, , .		6
47	Trust-aware network utility optimization in multihop wireless networks with delay constraints. , 2016, , .		6
48	Dynamic self-organization and clustering in distributed networked systems for performance improvement. , 2009, , .		5
49	Coalition formation through learning in autonomic networks. , 2009, , .		5
50	Component based modeling for cross-layer analysis of 802.11 MAC and OLSR routing protocols in ad-hoc networks. , 2009, , .		5
51	Coordinated scheduling and power control for downlink cross-tier interference mitigation in heterogeneous cellular networks. , 2013, , .		5
52	Motion planning in dynamic environments with bounded time temporal logic specifications. , 2015, , .		5
53	Distributed solution of the Economic Dispatch Problem in smart grid power systems framework with delays. , 2015, , .		5
54	Optimal strategies for stochastic linear quadratic differential games with costly information. , 2016, , .		5

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55	Trust is the Cure to Distributed Consensus with Adversaries. , 2019, , .		5
56	Robot Navigation Under MITL Constraints Using Time-Dependent Vector Field Based Control. , 2019, , .		5
57	Strategies for two-player differential games with costly information. , 2016, , .		5
58	Clustering Characteristics of Millimeter Wave Indoor Channels. , 2008, , .		4
59	Achieving symmetric Pareto Nash equilibria using biased replicator dynamics. , 2009, , .		4
60	Distributed Collaborative Controlled autonomous vehicle systems over wireless networks. , 2010, , .		4
61	A Robust Collaborative Filtering Algorithm Using Ordered Logistic Regression. , 2011, , .		4
62	Social networks over wireless networks. , 2012, , .		4
63	A coalitional game based approach for multi-metric optimal routing in wireless networks. , 2013, , .		4
64	A fresh look at network science: Interdependent multigraphs models inspired from statistical physics. , 2014, , .		4
65	Feedback Control Over Noisy Channels: Characterization of a General Equilibrium. IEEE Transactions on Automatic Control, 2022, 67, 3396-3409.	3.6	4
66	Minimal Feedback Optimal Control of Linear-Quadratic-Gaussian Systems: No Communication is also a Communication. IFAC-PapersOnLine, 2020, 53, 2201-2207.	0.5	4
67	Frequency domain design of linear distributed systems. , 1980, , .		3
68	Approximate solution of nonlinear filtering problems by direct implementation of the Zakai equation. , 1981, , .		3
69	Real-time sequential detection for diffusion signals. , 1987, , .		3
70	Distributed Asynchronous detection: General models. , 1987, , .		3
71	Enhancing Benign User Cooperation in the Presence of Malicious Adversaries in Ad Hoc Networks. , 2006, , .		3
72	Gibbs Sampler Based Control of Autonomous Vehicle Swarms in the Presence of Sensor Errors. , 2006, , .		3

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73	Trust Document Distribution in MANETs. , 2007, , .		3
74	Semiring Pruning for Information Dissemination in Mobile Ad Hoc Networks. , 2009, , .		3
75	Opportunistic communications for networked controlled systems of autonomous vehicles. , 2010, , .		3
76	Exploiting Trust Relations for Nash Equilibrium Efficiency in Ad Hoc Networks. , 2011, , .		3
77	A distributed opportunistic scheduling protocol for multi-channel wireless ad-hoc networks. , 2012, , .		3
78	Load balancing with almost blank subframe control in heterogeneous cellular networks. , 2014, , .		3
79	Synchronization and collision avoidance in non-linear flocking networks of autonomous agents. , 2016, , .		3
80	Convergence Analysis of Classes of Asymmetric Networks of Cucker–Smale Type With Deterministic Perturbations. IEEE Transactions on Control of Network Systems, 2018, 5, 1852-1863.	2.4	3
81	Event-Triggered Controller Synthesis for Dynamical Systems with Temporal Logic Constraints. , 2018, , .		3
82	Binary Hypothesis Testing by Two Collaborating Observers: A Fresh Look. , 2019, , .		3
83	Event triggered distributed collaborative control. , 2009, , .		3
84	Nonclassical filtering problems in quantum electronics. , 1975, , .		2
85	Derivation of Fuzzy Rules for Model-Free Tuning of PID Controllers. Journal of Intelligent and Fuzzy Systems, 1995, 3, 59-69.	0.8	2
86	Distributed Control of Autonomous Swarms by Using Parallel Simulated Annealing Algorithm. , 2006, , .		2
87	Stabilization Using Multiple Sensors over Analog Erasure Channels. , 2007, , .		2
88	Performance comparison of two sequential change detection algorithms on detection of in-band wormholes. , 2009, , .		2
89	Evolutionary dynamics of collaborative environments with heterogeneous agents. , 2009, , .		2
90	Communication network challenges for collaborative vehicles. , 2011, , .		2

#	ARTICLE	IF	CITATIONS
91	Performance Analysis of Time-Critical Peer-to-Peer Communications in IEEE 802.15.4 Networks. , 2011, , .		2
92	Sequential Anomaly Detection in Wireless Sensor Networks and Effects of Long-Range Dependent Data. Sequential Analysis, 2012, 31, 458-480.	0.2	2
93	ON THE DYNAMICS OF A SIMPLE RATIONAL PLANAR MAP. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2013, 23, 1330021.	0.7	2
94	Pose synchronization of rigid body networks with switching topologies. , 2015, , .		2
95	Joint optimization for social content delivery in wireless networks. , 2016, , .		2
96	Attitude synchronization of multiple rigid bodies in SE(3) over proximity networks. , 2016, , .		2
97	The effect of delays in the Economic Dispatch Problem for smart grid architectures. , 2016, , .		2
98	Asymptotic policies for stochastic differential linear quadratic games with intermittent state feedback. , 2017, , .		2
99	Stochastic differential linear-quadratic games with intermittent asymmetric observations. , 2017, , .		2
100	Event-triggered Feedback Control for Signal Temporal Logic Tasks. , 2018, , .		2
101	An optimization model for multi-appointment scheduling in an outpatient cardiology setting. Operations Research for Health Care, 2020, 26, 100267.	0.8	2
102	Some controllability properties of bilinear delay-differential systems. , 1975, , .		1
103	Feedback compensation with irrational transfer functions: An algebraic approach. , 1981, , .		1
104	A new geometric stability margin for feedback system. , 1985, , .		1
105	Sequential testing on the rate of a counting process. , 1987, , .		1
106	Efficient Sampling for Keeping Track of an Ornstein-Uhlenbeck Process. , 2006, , .		1
107	A policy-based routing scheme for multi-robot systems. , 2008, , .		1
108	Distributed topology control for Stable Path routing in multi-hop wireless networks. , 2010, , .		1

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109	Exploiting diversity of usage to enhance user equipment energy efficiency in LTE networks. <i>Telecommunication Systems</i> , 2015, 59, 5-23.	1.6	1
110	Distributed hybrid consensus of second-order dynamics over proximity nets. , 2016, , .		1
111	Joint optimization for social content delivery in heterogeneous wireless networks. , 2016, , .		1
112	Distributed energy-aware mobile sensor coverage: A game theoretic approach. , 2016, , .		1
113	Dynamics of collectives with opinionated agents: The case of scrambling connectivity. , 2016, , .		1
114	Algebraic-graphical approach for signed dynamical networks. , 2017, , .		1
115	Actuator Scheduling for Linear Systems: A Convex Relaxation Approach. , 2023, 7, 7-12.		1
116	Bilinear hereditary differential systems: State space models in Hilbert space. , 1976, , .		0
117	Linear stochastic systems coupled with memoryless nonlinearities. , 1979, , .		0
118	Order determination for functions of finite Markov chains. , 1987, , .		0
119	Maximum Entropy Models, Dynamic Games, and Robust Output Feedback Control for Nonlinear Systems. , 2006, , .		0
120	Combined single-path routing and flow control in many-user region: a case for nash efficiency. , 2007, , .		0
121	Towards Optimal Design of Data Hiding Algorithms Against Nonparametric Adversary Models. , 2007, , .		0
122	On Optimal Watermarking Schemes in Uncertain Gaussian Channels. , 2007, , .		0
123	Context-dependent multi-class classification with unknown observation and class distributions with applications to bioinformatics. , 2009, , .		0
124	Multi-scale analysis of long range dependent traffic for anomaly detection in wireless sensor networks. , 2011, , .		0
125	Power allocation policy for distributed estimation in wireless networks. , 2011, , .		0
126	Collaborative sequential detection of Gaussian models from observed data and the value of information exchanged. , 2017, , .		0



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127	Crowdsourcing with multi-dimensional trust and active learning. , 2017, , .		0
128	Model-Based Systems Engineering Applied to the Trajectory Planning for Autonomous Vehicles. , 2018, , .		0