

Robert Shorten

List of Publications by Year in Descending Order

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Version: 2024-04-29

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

92
papers

2,079
citations

21
h-index

43
g-index

98
ext. papers

2,562
ext. citations

3.8
avg. IF

5.23
L-index

#	Paper	IF	Citations
92	Markovian city-scale modelling and mitigation of micro-particles from tires. <i>PLoS ONE</i> , 2021 , 16, e0260236	3.7	0
91	Secure Access Control for DAG-based Distributed Ledgers. <i>IEEE Internet of Things Journal</i> , 2021 , 1-1	10.7	1
90	On the Derivation of Stability Properties for Time-Delay Systems Without Constraint on the Time-Derivative of the Initial Condition. <i>IEEE Transactions on Automatic Control</i> , 2021 , 66, 5401-5406	5.9	
89	Integral action for setpoint regulation control of a reaction-diffusion equation in the presence of a state delay. <i>Automatica</i> , 2021 , 134, 109935	5.7	0
88	. <i>IEEE Internet of Things Journal</i> , 2021 , 8, 11112-11122	10.7	1
87	Robustness of constant-delay predictor feedback for in-domain stabilization of reaction-diffusion PDEs with time- and spatially-varying input delays. <i>Automatica</i> , 2021 , 123, 109347	5.7	6
86	Post-lockdown abatement of COVID-19 by fast periodic switching. <i>PLoS Computational Biology</i> , 2021 , 17, e1008604	5	19
85	Hysteresis-based supervisory control with application to non-pharmaceutical containment of COVID-19. <i>Annual Reviews in Control</i> , 2021 , 52, 508-522	10.3	
84	Access Control for Distributed Ledgers in the Internet of Things: A Networking Approach. <i>IEEE Internet of Things Journal</i> , 2021 , 1-1	10.7	3
83	In-domain stabilization of block diagonal infinite-dimensional systems with time-varying input delays. <i>IEEE Transactions on Automatic Control</i> , 2021 , 1-1	5.9	2
82	. <i>IEEE Internet of Things Journal</i> , 2020 , 7, 7112-7122	10.7	15
81	Boundary feedback stabilization of a reaction-diffusion equation with Robin boundary conditions and state-delay. <i>Automatica</i> , 2020 , 116, 108931	5.7	11
80	Robustness of Constant-Delay Predictor Feedback with Respect to Distinct Uncertain Time-Varying Input Delays. <i>IFAC-PapersOnLine</i> , 2020 , 53, 7677-7682	0.7	2
79	Distributed Ledger Enabled Control of Tyre Induced Particulate Matter in Smart Cities. <i>Frontiers in Sustainable Cities</i> , 2020 , 2,	2.2	3
78	Exponential input-to-state stabilization of a class of diagonal boundary control systems with delay boundary control. <i>Systems and Control Letters</i> , 2020 , 138, 104651	2.4	9
77	On the Stability of Unverified Transactions in a DAG-Based Distributed Ledger. <i>IEEE Transactions on Automatic Control</i> , 2020 , 65, 3772-3783	5.9	13
76	SPR based design conditions for quadratic stability of multi-mode switched linear systems. <i>Automatica</i> , 2020 , 122, 109254	5.7	2

75	An LMI condition for the robustness of constant-delay linear predictor feedback with respect to uncertain time-varying input delays. <i>Automatica</i> , 2019 , 109, 108551	5.7	25
74	Some stability tests for switched descriptor systems. <i>Automatica</i> , 2019 , 106, 257-265	5.7	4
73	Nonhomogeneous Place-dependent Markov Chains, Unsynchronised AIMD, and Optimisation. <i>Journal of the ACM</i> , 2019 , 66, 1-37	2	3
72	A Vehicle-in-the-Loop Emulation Platform for Demonstrating Intelligent Transportation Systems. <i>Lecture Notes in Control and Information Sciences</i> , 2019 , 133-154	0.5	1
71	A Context-Aware E-Bike System to Reduce Pollution Inhalation While Cycling. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2019 , 20, 704-715	6.1	13
70	ISS Property with respect to boundary disturbances for a class of Riesz-spectral boundary control systems. <i>Automatica</i> , 2019 , 109, 108504	5.7	14
69	On the design of cyber-physical control system for a smart pedelec (Ebike) 2019 ,		4
68	On Synchronization in Continuous-Time Networks of Nonlinear Nodes With State-Dependent and Degenerate Noise Diffusion. <i>IEEE Transactions on Automatic Control</i> , 2019 , 64, 389-395	5.9	22
67	. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2018 , 19, 3992-3999	6.1	8
66	On common noise-induced synchronization in complex networks with state-dependent noise diffusion processes. <i>Physica D: Nonlinear Phenomena</i> , 2018 , 369, 47-54	3.3	24
65	Clustering behaviour in Markov chains with eigenvalues close to one. <i>Linear Algebra and Its Applications</i> , 2018 , 555, 163-185	0.9	2
64	Communication-efficient Distributed Multi-resource Allocation 2018 ,		2
63	dockChain: A Solution for Electric Vehicles Charge Point Anxiety 2018 ,		1
62	Context-Based Cyclist Intelligent Support: An Approach to e-Bike Control Based on Smartphone Sensors. <i>Lecture Notes in Computer Science</i> , 2018 , 16-22	0.9	3
61	Distributed Ledger Technology for Smart Cities, the Sharing Economy, and Social Compliance. <i>IEEE Access</i> , 2018 , 6, 62728-62746	3.5	48
60	Smart Procurement of Naturally Generated Energy (SPONGE) for Plug-In Hybrid Electric Buses. <i>IEEE Transactions on Automation Science and Engineering</i> , 2017 , 14, 598-607	4.9	9
59	On the Design of Campus Parking Systems With QoS Guarantees. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2016 , 17, 1428-1437	6.1	23
58	Smart procurement of naturally generated energy (SPONGE) for PHEVs. <i>International Journal of Control</i> , 2016 , 89, 1467-1480	1.5	9

57	Consensus with state obfuscation: an application to speed advisory systems 2016 ,		5
56	Alleviating a form of electric vehicle range anxiety through on-demand vehicle access. <i>International Journal of Control</i> , 2015 , 88, 717-728	1.5	22
55	Signalling and obfuscation for congestion control. <i>International Journal of Control</i> , 2015 , 88, 2086-2096	1.5	7
54	A framework for real-time emissions trading in large-scale vehicle fleets. <i>IET Intelligent Transport Systems</i> , 2015 , 9, 275-284	2.4	5
53	A Markov-chain based model for a bike-sharing system 2015 ,		4
52	Asynchronous algorithms for network utility maximisation with a single bit 2015 ,		1
51	Residential electrical vehicle charging strategies: the good, the bad and the ugly. <i>Journal of Modern Power Systems and Clean Energy</i> , 2015 , 3, 190-202	4	21
50	A big-data model for multi-modal public transportation with application to macroscopic control and optimisation. <i>International Journal of Control</i> , 2015 , 88, 2354-2368	1.5	19
49	Optimal real-time distributed V2G and G2V management of electric vehicles. <i>International Journal of Control</i> , 2014 , 87, 1153-1162	1.5	26
48	On the quadratic stability of switched linear systems associated with symmetric transfer function matrices. <i>Automatica</i> , 2014 , 50, 2872-2879	5.7	9
47	Stochastic Park-and-Charge Balancing for Fully Electric and Plug-in Hybrid Vehicles. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2014 , 15, 895-901	6.1	48
46	Classical Results on the Stability of Linear Time-Invariant Systems, and the Schwarz Form. <i>IEEE Transactions on Automatic Control</i> , 2014 , 59, 3020-3025	5.9	4
45	On Optimality Criteria for Reverse Charging of Electric Vehicles. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2014 , 15, 451-456	6.1	14
44	Plug-and-Play Distributed Algorithms for Optimized Power Generation in a Microgrid. <i>IEEE Transactions on Smart Grid</i> , 2014 , 5, 2145-2154	10.7	53
43	Delay-Tolerant Stochastic Algorithms for Parking Space Assignment. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2014 , 15, 1922-1935	6.1	40
42	. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2013 , 14, 1572-1585	6.1	19
41	An extension of the KYP-lemma for the design of state-dependent switching systems with uncertainty. <i>Systems and Control Letters</i> , 2013 , 62, 626-631	2.4	2
40	A Nonconservative LMI Condition for Stability of Switched Systems With Guaranteed Dwell Time. <i>IEEE Transactions on Automatic Control</i> , 2012 , 57, 1297-1302	5.9	105

39	A characterisation of common diagonal stability over cones. <i>Linear and Multilinear Algebra</i> , 2012 , 60, 1117-1123	0.7	6
38	Deterministic and stochastic convergence properties of AIMD algorithms with nonlinear back-off functions. <i>Automatica</i> , 2012 , 48, 1291-1299	5.7	3
37	Traffic modelling framework for electric vehicles. <i>International Journal of Control</i> , 2012 , 85, 880-897	1.5	22
36	An ergodic AIMD algorithm with application to high-speed networks. <i>International Journal of Control</i> , 2012 , 85, 746-764	1.5	6
35	A Passivity Based Decentralized Control Design Methodology With Application to Vehicle Dynamics Control. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2012 , 134,	1.6	2
34	On a class of generalized eigenvalue problems and equivalent eigenvalue problems that arise in systems and control theory. <i>Automatica</i> , 2011 , 47, 431-442	5.7	10
33	Dwell time analysis for continuous-time switched linear positive systems 2010 ,		34
32	Adaptive Williams filters for active vehicle suspensions. <i>Transactions of the Institute of Measurement and Control</i> , 2010 , 32, 660-676	1.8	5
31	On the Characterization of Strict Positive Realness for General Matrix Transfer Functions. <i>IEEE Transactions on Automatic Control</i> , 2010 , 55, 1899-1904	5.9	16
30	On the diagonal stability of a class of almost positive switched systems 2010 ,		1
29	Hurwitz Stability of Metzler Matrices. <i>IEEE Transactions on Automatic Control</i> , 2010 , 55, 1484-1487	5.9	42
28	Strict positive realness of descriptor systems in state space. <i>International Journal of Control</i> , 2010 , 83, 1799-1809	1.5	8
27	An alternative proof of the Barker, Berman, Plemmons (BBP) result on diagonal stability and extensions. <i>Linear Algebra and Its Applications</i> , 2009 , 430, 34-40	0.9	53
26	On a theorem of Redheffer concerning diagonal stability. <i>Linear Algebra and Its Applications</i> , 2009 , 431, 2317-2329	0.9	15
25	A result on second order nonlinear operators arising in high-speed networking applications. <i>Automatica</i> , 2009 , 45, 1207-1214	5.7	
24	On linear co-positive Lyapunov functions for sets of linear positive systems. <i>Automatica</i> , 2009 , 45, 1943-1947	5.7	154
23	A control design method for a class of switched linear systems. <i>Automatica</i> , 2009 , 45, 2592-2596	5.7	20
22	Stability and D-stability for Switched Positive Systems. <i>Lecture Notes in Control and Information Sciences</i> , 2009 , 101-109	0.5	6

21	Generalized distributed rate limiting 2009 ,		5
20	Quadratic Stability and Singular SISO Switching Systems. <i>IEEE Transactions on Automatic Control</i> , 2009 , 54, 2714-2718	5.9	21
19	Applications of Linear Co-positive Lyapunov Functions for Switched Linear Positive Systems. <i>Lecture Notes in Control and Information Sciences</i> , 2009 , 331-338	0.5	5
18	Distributed Probabilistic Synchronization Algorithms for Communication Networks. <i>IEEE Transactions on Automatic Control</i> , 2008 , 53, 389-393	5.9	21
17	Real-time multiple-model estimation of centre of gravity position in automotive vehicles. <i>Vehicle System Dynamics</i> , 2008 , 46, 763-788	2.8	41
16	SYNTHESIS OF PIECEWISE-LINEAR CHAOTIC MAPS: INVARIANT DENSITIES, AUTOCORRELATIONS, AND SWITCHING. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2008 , 18, 2169-2189	2	6
15	Pad $\bar{\omega}$ Approximations of and preservation of quadratic Lyapunov functions. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2008 , 8, 10807-10808	0.2	
14	A novel matrix approach for controlling the invariant densities of chaotic maps. <i>Chaos, Solitons and Fractals</i> , 2008 , 35, 161-175	9.3	10
13	A design methodology for switched discrete time linear systems with applications to automotive roll dynamics control. <i>Automatica</i> , 2008 , 44, 2358-2363	5.7	16
12	Modelling TCP congestion control dynamics in drop-tail environments. <i>Automatica</i> , 2007 , 43, 441-449	5.7	57
11	Quadratic and Copositive Lyapunov Functions and the Stability of Positive Switched Linear Systems. <i>Proceedings of the American Control Conference</i> , 2007 ,	1.2	19
10	A methodology for the design of robust rollover prevention controllers for automotive vehicles: Part 2-Active steering. <i>Proceedings of the American Control Conference</i> , 2007 ,	1.2	10
9	On the Dynamics of TCP $\bar{\omega}$ Higher Moments. <i>IEEE Communications Letters</i> , 2007 , 11, 210-212	3.8	2
8	Nonlinear AIMD Congestion Control and Contraction Mappings. <i>SIAM Journal on Control and Optimization</i> , 2007 , 46, 1882-1896	1.9	7
7	Stability Criteria for Switched and Hybrid Systems. <i>SIAM Review</i> , 2007 , 49, 545-592	7.4	667
6	On nonlinear AIMD congestion control for high-speed networks 2006 ,		1
5	On the simultaneous diagonal stability of a pair of positive linear systems. <i>Linear Algebra and Its Applications</i> , 2006 , 413, 13-23	0.9	48
4	On the second eigenvalue of matrices associated with TCP. <i>Linear Algebra and Its Applications</i> , 2006 , 416, 175-183	0.9	5

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| 3 | Positive matrices associated with synchronised communication networks. <i>Linear Algebra and Its Applications</i> , 2004 , 393, 47-54 | 0.9 | 20 |
| 2 | On the 45° -Region and the uniform asymptotic stability of classes of second order parameter-varying and switched systems. <i>International Journal of Control</i> , 2002 , 75, 812-823 | 1.5 | 8 |
| 1 | Nonlinear AIMD Congestion Control and Contraction Mappings | 193-200 | |