

# Robert Shorten

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/11501515/robert-shorten-publications-by-citations.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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	Stability Criteria for Switched and Hybrid Systems. <i>SIAM Review</i> , <b>2007</b> , 49, 545-592	7.4	667
91	On linear co-positive Lyapunov functions for sets of linear positive systems. <i>Automatica</i> , <b>2009</b> , 45, 1943-1947	5.7	154
90	A Nonconservative LMI Condition for Stability of Switched Systems With Guaranteed Dwell Time. <i>IEEE Transactions on Automatic Control</i> , <b>2012</b> , 57, 1297-1302	5.9	105
89	Modelling TCP congestion control dynamics in drop-tail environments. <i>Automatica</i> , <b>2007</b> , 43, 441-449	5.7	57
88	Plug-and-Play Distributed Algorithms for Optimized Power Generation in a Microgrid. <i>IEEE Transactions on Smart Grid</i> , <b>2014</b> , 5, 2145-2154	10.7	53
87	An alternative proof of the Barker, Berman, Plemmons (BBP) result on diagonal stability and extensions. <i>Linear Algebra and Its Applications</i> , <b>2009</b> , 430, 34-40	0.9	53
86	Stochastic Park-and-Charge Balancing for Fully Electric and Plug-in Hybrid Vehicles. <i>IEEE Transactions on Intelligent Transportation Systems</i> , <b>2014</b> , 15, 895-901	6.1	48
85	On the simultaneous diagonal stability of a pair of positive linear systems. <i>Linear Algebra and Its Applications</i> , <b>2006</b> , 413, 13-23	0.9	48
84	Distributed Ledger Technology for Smart Cities, the Sharing Economy, and Social Compliance. <i>IEEE Access</i> , <b>2018</b> , 6, 62728-62746	3.5	48
83	Hurwitz Stability of Metzler Matrices. <i>IEEE Transactions on Automatic Control</i> , <b>2010</b> , 55, 1484-1487	5.9	42
82	Real-time multiple-model estimation of centre of gravity position in automotive vehicles. <i>Vehicle System Dynamics</i> , <b>2008</b> , 46, 763-788	2.8	41
81	Delay-Tolerant Stochastic Algorithms for Parking Space Assignment. <i>IEEE Transactions on Intelligent Transportation Systems</i> , <b>2014</b> , 15, 1922-1935	6.1	40
80	Dwell time analysis for continuous-time switched linear positive systems <b>2010</b> ,		34
79	Optimal real-time distributed V2G and G2V management of electric vehicles. <i>International Journal of Control</i> , <b>2014</b> , 87, 1153-1162	1.5	26
78	An LMI condition for the robustness of constant-delay linear predictor feedback with respect to uncertain time-varying input delays. <i>Automatica</i> , <b>2019</b> , 109, 108551	5.7	25
77	On common noise-induced synchronization in complex networks with state-dependent noise diffusion processes. <i>Physica D: Nonlinear Phenomena</i> , <b>2018</b> , 369, 47-54	3.3	24
76	On the Design of Campus Parking Systems With QoS Guarantees. <i>IEEE Transactions on Intelligent Transportation Systems</i> , <b>2016</b> , 17, 1428-1437	6.1	23

75	Alleviating a form of electric vehicle range anxiety through on-demand vehicle access. <i>International Journal of Control</i> , <b>2015</b> , 88, 717-728	1.5	22
74	Traffic modelling framework for electric vehicles. <i>International Journal of Control</i> , <b>2012</b> , 85, 880-897	1.5	22
73	On Synchronization in Continuous-Time Networks of Nonlinear Nodes With State-Dependent and Degenerate Noise Diffusion. <i>IEEE Transactions on Automatic Control</i> , <b>2019</b> , 64, 389-395	5.9	22
72	Residential electrical vehicle charging strategies: the good, the bad and the ugly. <i>Journal of Modern Power Systems and Clean Energy</i> , <b>2015</b> , 3, 190-202	4	21
71	Quadratic Stability and Singular SISO Switching Systems. <i>IEEE Transactions on Automatic Control</i> , <b>2009</b> , 54, 2714-2718	5.9	21
70	Distributed Probabilistic Synchronization Algorithms for Communication Networks. <i>IEEE Transactions on Automatic Control</i> , <b>2008</b> , 53, 389-393	5.9	21
69	A control design method for a class of switched linear systems. <i>Automatica</i> , <b>2009</b> , 45, 2592-2596	5.7	20
68	Positive matrices associated with synchronised communication networks. <i>Linear Algebra and Its Applications</i> , <b>2004</b> , 393, 47-54	0.9	20
67	. <i>IEEE Transactions on Intelligent Transportation Systems</i> , <b>2013</b> , 14, 1572-1585	6.1	19
66	A big-data model for multi-modal public transportation with application to macroscopic control and optimisation. <i>International Journal of Control</i> , <b>2015</b> , 88, 2354-2368	1.5	19
65	Quadratic and Copositive Lyapunov Functions and the Stability of Positive Switched Linear Systems. <i>Proceedings of the American Control Conference</i> , <b>2007</b> ,	1.2	19
64	Post-lockdown abatement of COVID-19 by fast periodic switching. <i>PLoS Computational Biology</i> , <b>2021</b> , 17, e1008604	5	19
63	On the Characterization of Strict Positive Realness for General Matrix Transfer Functions. <i>IEEE Transactions on Automatic Control</i> , <b>2010</b> , 55, 1899-1904	5.9	16
62	A design methodology for switched discrete time linear systems with applications to automotive roll dynamics control. <i>Automatica</i> , <b>2008</b> , 44, 2358-2363	5.7	16
61	. <i>IEEE Internet of Things Journal</i> , <b>2020</b> , 7, 7112-7122	10.7	15
60	On a theorem of Redheffer concerning diagonal stability. <i>Linear Algebra and Its Applications</i> , <b>2009</b> , 431, 2317-2329	0.9	15
59	ISS Property with respect to boundary disturbances for a class of Riesz-spectral boundary control systems. <i>Automatica</i> , <b>2019</b> , 109, 108504	5.7	14
58	On Optimality Criteria for Reverse Charging of Electric Vehicles. <i>IEEE Transactions on Intelligent Transportation Systems</i> , <b>2014</b> , 15, 451-456	6.1	14

57	A Context-Aware E-Bike System to Reduce Pollution Inhalation While Cycling. <i>IEEE Transactions on Intelligent Transportation Systems</i> , <b>2019</b> , 20, 704-715	6.1	13
56	On the Stability of Unverified Transactions in a DAG-Based Distributed Ledger. <i>IEEE Transactions on Automatic Control</i> , <b>2020</b> , 65, 3772-3783	5.9	13
55	Boundary feedback stabilization of a reaction-diffusion equation with Robin boundary conditions and state-delay. <i>Automatica</i> , <b>2020</b> , 116, 108931	5.7	11
54	On a class of generalized eigenvalue problems and equivalent eigenvalue problems that arise in systems and control theory. <i>Automatica</i> , <b>2011</b> , 47, 431-442	5.7	10
53	A novel matrix approach for controlling the invariant densities of chaotic maps. <i>Chaos, Solitons and Fractals</i> , <b>2008</b> , 35, 161-175	9.3	10
52	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> , <b>2007</b> ,	1.2	10
51	Smart Procurement of Naturally Generated Energy (SPONGE) for Plug-In Hybrid Electric Buses. <i>IEEE Transactions on Automation Science and Engineering</i> , <b>2017</b> , 14, 598-607	4.9	9
50	Smart procurement of naturally generated energy (SPONGE) for PHEVs. <i>International Journal of Control</i> , <b>2016</b> , 89, 1467-1480	1.5	9
49	On the quadratic stability of switched linear systems associated with symmetric transfer function matrices. <i>Automatica</i> , <b>2014</b> , 50, 2872-2879	5.7	9
48	Exponential input-to-state stabilization of a class of diagonal boundary control systems with delay boundary control. <i>Systems and Control Letters</i> , <b>2020</b> , 138, 104651	2.4	9
47	. <i>IEEE Transactions on Intelligent Transportation Systems</i> , <b>2018</b> , 19, 3992-3999	6.1	8
46	Strict positive realness of descriptor systems in state space. <i>International Journal of Control</i> , <b>2010</b> , 83, 1799-1809	1.5	8
45	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> , <b>2002</b> , 75, 812-823	1.5	8
44	Signalling and obfuscation for congestion control. <i>International Journal of Control</i> , <b>2015</b> , 88, 2086-2096	1.5	7
43	Nonlinear AIMD Congestion Control and Contraction Mappings. <i>SIAM Journal on Control and Optimization</i> , <b>2007</b> , 46, 1882-1896	1.9	7
42	A characterisation of common diagonal stability over cones. <i>Linear and Multilinear Algebra</i> , <b>2012</b> , 60, 1117-1123	0.7	6
41	An ergodic AIMD algorithm with application to high-speed networks. <i>International Journal of Control</i> , <b>2012</b> , 85, 746-764	1.5	6
40	Stability and D-stability for Switched Positive Systems. <i>Lecture Notes in Control and Information Sciences</i> , <b>2009</b> , 101-109	0.5	6

39	SYNTHESIS OF PIECEWISE-LINEAR CHAOTIC MAPS: INVARIANT DENSITIES, AUTOCORRELATIONS, AND SWITCHING. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , <b>2008</b> , 18, 2169-2189	2	6
38	Robustness of constant-delay predictor feedback for in-domain stabilization of reaction-diffusion PDEs with time- and spatially-varying input delays. <i>Automatica</i> , <b>2021</b> , 123, 109347	5.7	6
37	A framework for real-time emissions trading in large-scale vehicle fleets. <i>IET Intelligent Transport Systems</i> , <b>2015</b> , 9, 275-284	2.4	5
36	Adaptive Williams filters for active vehicle suspensions. <i>Transactions of the Institute of Measurement and Control</i> , <b>2010</b> , 32, 660-676	1.8	5
35	Generalized distributed rate limiting <b>2009</b> ,		5
34	On the second eigenvalue of matrices associated with TCP. <i>Linear Algebra and Its Applications</i> , <b>2006</b> , 416, 175-183	0.9	5
33	Applications of Linear Co-positive Lyapunov Functions for Switched Linear Positive Systems. <i>Lecture Notes in Control and Information Sciences</i> , <b>2009</b> , 331-338	0.5	5
32	Consensus with state obfuscation: an application to speed advisory systems <b>2016</b> ,		5
31	Some stability tests for switched descriptor systems. <i>Automatica</i> , <b>2019</b> , 106, 257-265	5.7	4
30	Classical Results on the Stability of Linear Time-Invariant Systems, and the Schwarz Form. <i>IEEE Transactions on Automatic Control</i> , <b>2014</b> , 59, 3020-3025	5.9	4
29	A Markov-chain based model for a bike-sharing system <b>2015</b> ,		4
28	On the design of cyber-physical control system for a smart pedelec (Ebike) <b>2019</b> ,		4
27	Nonhomogeneous Place-dependent Markov Chains, Unsynchronised AIMD, and Optimisation. <i>Journal of the ACM</i> , <b>2019</b> , 66, 1-37	2	3
26	Deterministic and stochastic convergence properties of AIMD algorithms with nonlinear back-off functions. <i>Automatica</i> , <b>2012</b> , 48, 1291-1299	5.7	3
25	Distributed Ledger Enabled Control of Tyre Induced Particulate Matter in Smart Cities. <i>Frontiers in Sustainable Cities</i> , <b>2020</b> , 2,	2.2	3
24	Context-Based Cyclist Intelligent Support: An Approach to e-Bike Control Based on Smartphone Sensors. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 16-22	0.9	3
23	Access Control for Distributed Ledgers in the Internet of Things: A Networking Approach. <i>IEEE Internet of Things Journal</i> , <b>2021</b> , 1-1	10.7	3
22	Clustering behaviour in Markov chains with eigenvalues close to one. <i>Linear Algebra and Its Applications</i> , <b>2018</b> , 555, 163-185	0.9	2

21	An extension of the KYP-lemma for the design of state-dependent switching systems with uncertainty. <i>Systems and Control Letters</i> , <b>2013</b> , 62, 626-631	2.4	2
20	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> , <b>2012</b> , 134,	1.6	2
19	On the Dynamics of TCP's Higher Moments. <i>IEEE Communications Letters</i> , <b>2007</b> , 11, 210-212	3.8	2
18	Robustness of Constant-Delay Predictor Feedback with Respect to Distinct Uncertain Time-Varying Input Delays. <i>IFAC-PapersOnLine</i> , <b>2020</b> , 53, 7677-7682	0.7	2
17	SPR based design conditions for quadratic stability of multi-mode switched linear systems. <i>Automatica</i> , <b>2020</b> , 122, 109254	5.7	2
16	Communication-efficient Distributed Multi-resource Allocation <b>2018</b> ,		2
15	In-domain stabilization of block diagonal infinite-dimensional systems with time-varying input delays. <i>IEEE Transactions on Automatic Control</i> , <b>2021</b> , 1-1	5.9	2
14	A Vehicle-in-the-Loop Emulation Platform for Demonstrating Intelligent Transportation Systems. <i>Lecture Notes in Control and Information Sciences</i> , <b>2019</b> , 133-154	0.5	1
13	Asynchronous algorithms for network utility maximisation with a single bit <b>2015</b> ,		1
12	On the diagonal stability of a class of almost positive switched systems <b>2010</b> ,		1
11	On nonlinear AIMD congestion control for high-speed networks <b>2006</b> ,		1
10	Secure Access Control for DAG-based Distributed Ledgers. <i>IEEE Internet of Things Journal</i> , <b>2021</b> , 1-1	10.7	1
9	. <i>IEEE Internet of Things Journal</i> , <b>2021</b> , 8, 11112-11122	10.7	1
8	dockChain: A Solution for Electric Vehicles Charge Point Anxiety <b>2018</b> ,		1
7	Markovian city-scale modelling and mitigation of micro-particles from tires. <i>PLoS ONE</i> , <b>2021</b> , 16, e0260236	3.7	0
6	Integral action for setpoint regulation control of a reaction-diffusion equation in the presence of a state delay. <i>Automatica</i> , <b>2021</b> , 134, 109935	5.7	0
5	A result on second order nonlinear operators arising in high-speed networking applications. <i>Automatica</i> , <b>2009</b> , 45, 1207-1214	5.7	
4	Padé Approximations of and preservation of quadratic Lyapunov functions. <i>Proceedings in Applied Mathematics and Mechanics</i> , <b>2008</b> , 8, 10807-10808	0.2	

3 Nonlinear AIMD Congestion Control and Contraction Mappings 193-200

2 On the Derivation of Stability Properties for Time-Delay Systems Without Constraint on the Time-Derivative of the Initial Condition. *IEEE Transactions on Automatic Control*, **2021**, 66, 5401-5406 59

1 Hysteresis-based supervisory control with application to non-pharmaceutical containment of COVID-19. *Annual Reviews in Control*, **2021**, 52, 508-522 103