Joaquin Carrasco

List of Publications by Year
in descending order

81 papers	1,259 citations	430874 18 h-index	414414 32 g-index
82 all docs	82 docs citations	82 times ranked	578 citing authors

#	Article	IF	Citations
1	Voronoi-Based Multi-Robot Autonomous Exploration in Unknown Environments via Deep Reinforcement Learning. IEEE Transactions on Vehicular Technology, 2020, 69, 14413-14423.	6.3	190
2	Vibration analysis for large-scale wind turbine blade bearing fault detection with an empirical wavelet thresholding method. Renewable Energy, 2020, 146, 99-110.	8.9	96
3	Reset Times-Dependent Stability of Reset Control Systems. IEEE Transactions on Automatic Control, 2011, 56, 217-223.	5.7	71
4	Reset Control for Passive Bilateral Teleoperation. IEEE Transactions on Industrial Electronics, 2011, 58, 3037-3045.	7.9	69
5	A passivity-based approach to reset control systems stability. Systems and Control Letters, 2010, 59, 18-24.	2.3	67
6	Zamesâ€"Falb multipliers for absolute stability: From O×³Shea×³s contribution to convex searches. European Journal of Control, 2016, 28, 1-19.	2.6	65
7	Second-order counterexamples to the discrete-time Kalman conjecture. Automatica, 2015, 60, 140-144.	5.0	63
8	Fault-tolerant cooperative navigation of networked UAV swarms for forest fire monitoring. Aerospace Science and Technology, 2022, 123, 107494.	4.8	57
9	Equivalence between classes of multipliers for slope-restricted nonlinearities. Automatica, 2013, 49, 1732-1740.	5.0	40
10	Comments on â€œOn the Existence of Stable, Causal Multipliers for Systems With Slope-Restricted Nonlinearitiesâ€. IEEE Transactions on Automatic Control, 2012, 57, 2422-2428.	5.7	34
11	LMI searches for anticausal and noncausal rational Zamesâ€"Falb multipliers. Systems and Control Letters, 2014, 70, 17-22.	2.3	31
12	A Less Conservative LMI Condition for Stability of Discrete-Time Systems With Slope-Restricted Nonlinearities. IEEE Transactions on Automatic Control, 2015, 60, 1692-1697.	5.7	30
13	Convex Searches for Discrete-Time Zamesâ€"Falb Multipliers. IEEE Transactions on Automatic Control, 2020, 65, 4538-4553.	5.7	26
14	Reset Control of an Industrial In-Line pH Process. IEEE Transactions on Control Systems Technology, 2012, 20, 1100-1106.	5.2	23
15	MallARD: An Autonomous Aquatic Surface Vehicle for Inspection and Monitoring of Wet Nuclear Storage Facilities. Robotics, 2019, 8, 47.	3.5	22
16	Second-order counterexample to the discrete-time Kalman conjecture. , 2015, , .		21
17	Intuitive Bare-Hand Teleoperation of a Robotic Manipulator Using Virtual Reality and Leap Motion. Lecture Notes in Computer Science, 2019, , 283-294.	1.3	21
18	Towards -stability of discrete-time reset control systems via dissipativity theory. Systems and Control Letters, 2013, 62, 525-530.	2.3	20

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19	Phase Limitations of Zamesâ€"Falb Multipliers. IEEE Transactions on Automatic Control, 2018, 63, 947-959.	5.7	20
20	A complete and convex search for discrete-time noncausal FIR Zames-Falb multipliers. , 2014, , .		18
21	Elbow Detection in Pipes for Autonomous Navigation of Inspection Robots. Journal of Intelligent and Robotic Systems: Theory and Applications, 2019, 95, 527-541.	3.4	18
22	Factorization of multipliers in passivity and IQC analysis. Automatica, 2012, 48, 909-916.	5.0	16
23	Stability Analysis of Bilateral Teleoperation With Bounded and Monotone Environments via Zamesâ€"Falb Multipliers. IEEE Transactions on Control Systems Technology, 2017, 25, 1331-1344.	5.2	16
24	Reset times-dependent stability of reset control with unstable base systems. , 2007, , .		13
25	LMI searches for discrete-time Zames-Falb multipliers. , 2013, , .		13
26	On multipliers for bounded and monotone nonlinearities. Systems and Control Letters, 2014, 66, 65-71.	2.3	13
27	A Robust Kalman Conjecture For First-Order Plants. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 27-32.	0.4	10
28	LMI search for rational anticausal Zames-Falb multipliers. , 2012, , .		10
29	Construction of Periodic Counterexamples to the Discrete-Time Kalman Conjecture. , 2021, 5, 1291-1296.		10
30	Reset control for passive teleoperation. , 2008, , .		9
31	Conditions for the equivalence between IQC and graph separation stability results. International Journal of Control, 2019, 92, 2899-2906.	1.9	9
32	Robust Stability of Barrier-Based Model Predictive Control. IEEE Transactions on Automatic Control, 2021, 66, 1879-1886.	5.7	9
33	Integral quadratic constraint theorem: A topological separation approach. , 2015, , .		8
34	Stability analysis of asymmetric saturation via generalised Zames-Falb multipliers. , 2015, , .		8
35	Autonomous Elbow Controller for Differential Drive In-Pipe Robots. Robotics, 2021, 10, 28.	3.5	8
36	Global asymptotic stability for a class of discrete-time systems. , 2015, , .		7

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37	Duality Bounds for Discrete-Time Zames–Falb Multipliers. IEEE Transactions on Automatic Control, 2022, 67, 3521-3528.	5.7	7
38	Virtual Kinesthetic Teaching for Bimanual Telemanipulation. , 2021, , .		6
39	Reset times-dependent stability of reset control systems. , 2007, , .		5
40	Zames-Falb multipliers for absolute stability: From O'Shea's contribution to convex searches. , 2015, , .		5
41	Absolute Stability of Systems With Integrator and/or Time Delay via Off-Axis Circle Criterion. , 2018, 2, 411-416.		5
42	Multipliers for Nonlinearities With Monotone Bounds. IEEE Transactions on Automatic Control, 2022, 67, 910-917.	5.7	5
43	Reset control of an industrial in-line pH process. , 2009, , .		4
44	Factorization of multipliers in passivity and IQC analysis. , 2011, , .		4
45	Revisited Jury-Lee criterion for multivariable discrete-time Lur'e systems: Convex LMI search. , 2012, , .		4
46	Themed Project Case Study: Quadruple Tanks Control with PLCs. International Journal of Electrical Engineering and Education, 2013, 50, 279-292.	0.8	4
47	Comment on "Absolute stability analysis for negative-imaginary systems"[Automatica 67 (2016) 107–113]. Automatica, 2017, 85, 486-488.	5.0	4
48	Adaptive Impedance-Conditioned Phase-Locked Loop for the VSC Converter Connected to Weak Grid. Energies, 2021, 14, 6040.	3.1	4
49	A Model-free Deep Reinforcement Learning Approach for Robotic Manipulators Path Planning. , 2021, , .		4
50	On the design of reset systems with unstable base: A fixed reset-time approach. , 2011, , .		3
51	Kalman Conjecture for Resonant Second-Order Systems with Time Delay. , 2018, , .		3
52	IQC analysis of reset control systems with time-varying delay. International Journal of Control, 2019, 92, 2007-2014.	1.9	3
53	Zames–Falb multipliers for convergence rate: motivating example and convex searches. International Journal of Control, 2020, , 1-9.	1.9	3
54	Omnipotent Virtual Giant for Remote Human–Swarm Interaction. , 2021, , .		3

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55	Stability of reset control systems with inputs. , 2008, , .		2
56	IQC analysis for time-delay reset control systems with first order reset elements. , 2013, , .		2
57	Teleoperation with memoryless, monotone, and bounded environments: A Zames-Falb multiplier approach. , 2015, , .		2
58	Phase limitations of discrete-time Zames-Falb multipliers. , 2015, , .		2
59	A Hybrid Underwater Acoustic and RF Localisation System for Enclosed Environments Using Sensor Fusion. Lecture Notes in Computer Science, 2018, , 369-380.	1.3	2
60	Discrete-time counterparts of the RL and RC multipliers. International Journal of Control, 2020, 93, 1180-1193.	1.9	2
61	Tuning and sensitivity analysis of a hexapod state estimator. Robotics and Autonomous Systems, 2020, 129, 103509.	5.1	2
62	Super-attracting periodic orbits for a classical third order method. Journal of Computational and Applied Mathematics, 2007, 206, 599-602.	2.0	1
63	Equivalence between classes of multipliers for slope-restricted nonlinearities. , 2012, , .		1
64	On multipliers for bounded and monotone nonlinearities. , 2013, , .		1
65	Convex LMI approach for stability of critically stable systems with slope-restricted nonlinearities. , 2016, , .		1
66	Phase Properties of the Generalised Zames- Falb Multipliers. , 2018, , .		1
67	A Lyapunov-Lurye Functional Parametrization of Discrete-Time Zames-Falb Multipliers. , 2022, 6, 259-264.		1
68	On Lyapunov-Lurâ€™e functional based stability criterion for discrete-time Lurâ€™e systems. IFAC-PapersOnLine, 2020, 53, 6364-6369.	0.9	1
69	Team organization and participation in the Eurobot 2012 contest. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 180-185.	0.4	0
70	Bilateral Teleoperation with Nonlinear Environments: Multiplier Approach. IFAC-PapersOnLine, 2016, 49, 308-313.	0.9	0
71	Discrete-time counterparts of the RL and RC multipliers. , 2017, , .		0
72	Towards a Proof of the Kalman Conjecture for the Second Order Systems with Time-Delay. , 2018, , .		0

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73	The Pond Cleaning System. , 2018, , .		0
74	Evaluation of a State Observer for Frequency Estimation in a Grid Tied Photovoltaic Inverter. , 2018, , .		0
75	Construction of Periodic Counterexamples to the Discrete-Time Kalman Conjecture. , 2021, , .		0
76	Analysis of steady-state power transfer capability and dynamic performance of VSC-HVDC with impedance-compensated synchronisation method connected to weak AC grid. , 2019, , .		0
77	Improving thermal substation inspections utilising machine learning. , 2019, , .		0
78	On numerical construction of worse-case convergence rates for Discrete-time Lurye systems with odd nonlinearities. , 2021, , .		0
79	Construction of a Destabilizing Nonlinearity for Discrete-Time Uncertain Lurye Systems. , 2022, 6, 2605-2610.		0
80	Phase limitations of generalised OZF multipliers: further results. , 2022, , .		0
81	A Novel Triad Twisted String Actuator for Controlling a Two Degrees of Freedom Joint: Design and Experimental Validation. , 2022, , .		0