Luca Zaccarian

List of Publications by Year
in descending order

72	1,168	566801 15	433756 31
papers	citations	h-index	g-index

72	72	72	672
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stability properties of reset systems. Automatica, 2008, 44, 2019-2026.	3.0	209
2	Stability and Performance of SISO Control Systems With First-Order Reset Elements. IEEE Transactions on Automatic Control, 2011, 56, 2567-2582.	3.6	112
3	Stubborn state observers for linear time-invariant systems. Automatica, 2018, 88, 1-9.	3.0	79
4	Practical Stabilization of Switched Affine Systems With Dwell-Time Guarantees. IEEE Transactions on Automatic Control, 2019, 64, 4811-4817.	3.6	65
5	Lyapunov-based hybrid loops for stability and performance of continuous-time control systems. Automatica, 2013, 49, 577-584.	3.0	49
6	Hybrid dynamic modeling and control of switched affine systems: Application to DC-DC converters. , 2015, , .		42
7	Time-Varying Sampled-Data Observer With Asynchronous Measurements. IEEE Transactions on Automatic Control, 2019, 64, 869-876.	3.6	39
8	On input allocation-based regulation for linear over-actuated systems. Automatica, 2015, 52, 346-354.	3.0	38
9	Dynamic Attitude Planning for Trajectory Tracking in Thrust-Vectoring UAVs. IEEE Transactions on Automatic Control, 2020, 65, 453-460.	3.6	33
10	Global Asymptotic Stability of a PID Control System With Coulomb Friction. IEEE Transactions on Automatic Control, 2018, 63, 2654-2661.	3.6	30
11	A Nonsmooth Hybrid Invariance Principle Applied to Robust Event-Triggered Design. IEEE Transactions on Automatic Control, 2019, 64, 2061-2068.	3.6	29
12	Reset integral control for improved settling of PID-based motion systems with friction. Automatica, 2019, 107, 483-492.	3.0	29
13	On the use of low-pass filters in high-gain observers. Systems and Control Letters, 2021, 148, 104856.	1.3	23
14	A hybrid scheme for reducing peaking in high-gain observers for a class of nonlinear systems. Automatica, 2016, 72, 138-146.	3.0	22
15	Analysis and Synthesis of Reset Control Systems. Foundations and Trends in Systems and Control, 2018, 6, 117-338.	3.8	19
16	Relaxed Persistent Flow/Jump Conditions for Uniform Global Asymptotic Stability. IEEE Transactions on Automatic Control, 2014, 59, 2766-2771.	3.6	17
17	To stick or to slip: A reset PID control perspective on positioning systems with friction. Annual Reviews in Control, 2020, 49, 37-63.	4.4	17
18	Synchronization in Networks of Identical Nonlinear Systems via Dynamic Dead Zones. , 2019, 3, 667-672.		16

#	Article	IF	Citations
19	Stubborn and Dead-Zone Redesign for Nonlinear Observers and Filters. IEEE Transactions on Automatic Control, 2021, 66, 667-682.	3.6	16
20	Hâˆž control design for synchronisation of identical linear multi-agent systems. International Journal of Control, 2018, 91, 2214-2229.	1.2	15
21	Regional $H_{infty }$ Synchronization of Identical Linear Multiagent Systems Under Input Saturation. IEEE Transactions on Control of Network Systems, 2019, 6, 789-799.	2.4	14
22	A Hybrid Control Framework for Impulsive Control of Satellite Rendezvous. IEEE Transactions on Control Systems Technology, 2019, 27, 1537-1551.	3.2	14
23	Integral ISS-Based Cascade Stabilization for Vectored-Thrust UAVs. , 2020, 4, 43-48.		14
24	Stubborn ISS Redesign for Nonlinear High-Gain Observers. IFAC-PapersOnLine, 2017, 50, 15422-15427.	0.5	13
25	High-Gain Dead-Zone Observers for Linear and Nonlinear Plants. , 2019, 3, 356-361.		13
26	Output Injection Filtering Redesign in High-Gain Observers. , 2018, , .		11
27	Asymmetric State Feedback for Linear Plants With Asymmetric Input Saturation. , 2020, 4, 608-613.		11
28	Results on stubborn Luenberger observers for linear time-invariant plants. , 2015, , .		10
29	A Lyapunov method for stability analysis of piecewise-affine systems over non-invariant domains. International Journal of Control, 2016, 89, 950-959.	1.2	10
30	Reduction Theorems for Hybrid Dynamical Systems. IEEE Transactions on Automatic Control, 2019, 64, 2254-2265.	3.6	9
31	Unsafe Point Avoidance in Linear State Feedback. , 2018, , .		8
32	On dead-zone observers for linear plants. , 2018, , .		8
33	On the Stability and Robustness of Hierarchical Vehicle Lateral Control With Inverse/Forward Dynamics Quasi-Cancellation. IEEE Transactions on Vehicular Technology, 2019, 68, 10559-10570.	3.9	8
34	Reset PID Design for Motion Systems With Stribeck Friction. IEEE Transactions on Control Systems Technology, 2022, 30, 294-310.	3.2	8
35	Nonlinear Control of Multi-Rotor Aerial Vehicles Based on the Zero-Moment Direction. IFAC-PapersOnLine, 2017, 50, 13144-13149.	0.5	7
36	Input Allocation for the Propeller-Based Overactuated Platform ROSPO. IEEE Transactions on Control Systems Technology, 2020, 28, 2720-2727.	3.2	7

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37	Smith-Predictor-Based Torque Control of a Rolling Diaphragm Hydrostatic Transmission. IEEE Robotics and Automation Letters, 2021, 6, 2970-2977.	3.3	7
38	Design of Saturating State Feedback With Sign-Indefinite Quadratic Forms. IEEE Transactions on Automatic Control, 2022, 67, 3507-3520.	3.6	7
39	Optimality-based dynamic allocation with nonlinear first-order redundant actuators. European Journal of Control, 2016, 31, 33-40.	1.6	6
40	Synchronization of interconnected linear systems via dynamic saturation redesign. IFAC-PapersOnLine, 2019, 52, 622-627.	0.5	6
41	Explicit Construction of Stabilizing Robust Avoidance Controllers for Linear Systems With Drift. IEEE Transactions on Automatic Control, 2021, 66, 595-610.	3.6	6
42	State observer with Round-Robin aperiodic sampled measurements with jitter. Automatica, 2021, 129, 109573.	3.0	6
43	Hybrid cancellation of ripple disturbances arising in AC/DC converters. Automatica, 2017, 77, 344-352.	3.0	5
44	A Hybrid Control Law for Energy-Oriented Tasks Scheduling in Wireless Sensor Networks. IEEE Transactions on Control Systems Technology, 2018, 26, 1995-2007.	3.2	5
45	Hybrid Nonovershooting Set-Point Pressure Regulation for a Wet Clutch. IEEE/ASME Transactions on Mechatronics, 2020, 25, 1276-1287.	3.7	5
46	Hierarchical nonlinear control for multi-rotor asymptotic stabilization based on zero-moment direction. Automatica, 2020, 117, 108991.	3.0	4
47	Uniform global asymptotic synchronization of Kuramoto oscillators via hybrid coupling. IFAC-PapersOnLine, 2020, 53, 5819-5824.	0.5	4
48	Position and speed control of a low-cost two-wheeled, self-balancing inverted pendulum vehicle. , 2015, , .		3
49	A hybrid control framework for impulsive control of satellite rendezvous. , 2016, , .		3
50	A Class of Hybrid Velocity Observers for Angular Measurements With Jumps. , 2018, 2, 617-622.		3
51	An Asymmetric Stabilizer Based on Scheduling Shifted Coordinates for Single-Input Linear Systems With Asymmetric Saturation. , 2022, 6, 746-751.		3
52	Hierarchical dynamic control for robust attitude tracking. IFAC-PapersOnLine, 2020, 53, 6171-6176.	0.5	3
53	Static Linear Anti-Windup Design With Sign-Indefinite Quadratic Forms. , 2022, 6, 3158-3163.		3
54	Static anti-windup design for discrete-time large-scale cross-directional saturated linear control systems. , 2015, , .		2

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55	LMI-based non-overshooting pressure control design for a wet clutch. , 2016, , .		2
56	Hybrid PID control for transient performance improvement of motion systems with friction. , 2018, , .		2
57	Results on hybrid control of self-oscillating resonant converters. IFAC-PapersOnLine, 2021, 54, 211-216.	0.5	2
58	Augmented obstacle avoidance controller design for mobile robots. IFAC-PapersOnLine, 2021, 54, 157-162.	0.5	2
59	Nonpathological ISS-Lyapunov Functions for Interconnected Differential Inclusions. IEEE Transactions on Automatic Control, 2022, 67, 3774-3789.	3.6	2
60	Solving Nonlinear Algebraic Loops Arising in Input-Saturated Feedbacks. IEEE Transactions on Automatic Control, 2023, 68, 2079-2093.	3.6	2
61	Global robust attitude tracking with torque disturbance rejection via dynamic hybrid feedback. Automatica, 2022, 144, 110462.	3.0	2
62	Quasi time-optimal hybrid trajectory tracking of an n-dimensional saturated double integrator. , 2016, , .		1
63	A time-varying observer for linear systems with asynchronous discrete-time measurements. , 2017, , .		1
64	Uniting control laws: On obstacle avoidance and global stabilization of underactuated linear systems. , 2019, , .		1
65	Almost Everywhere Conditions for Hybrid Lipschitz Lyapunov Functions. , 2019, , .		1
66	Hybrid model formulation and stability analysis of a PID-controlled motion system with Coulomb friction. IFAC-PapersOnLine, 2019, 52, 84-89.	0.5	1
67	Quadratic Constrained Periodic Optimization for Bandlimited Linear Systems Via the Fourier-Based Method. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2021, 143, .	0.9	1
68	Localization from Inertial Data and Sporadic Position Measurements. IFAC-PapersOnLine, 2020, 53, 5976-5981.	0.5	1
69	A Hybrid Distributed Strategy for Robust Global Phase Synchronization of Second-Order Kuramoto Oscillators. , 2021, , .		1
70	Hybrid Control of Self-Oscillating Resonant Converters. IEEE Transactions on Control Systems Technology, 2023, 31, 881-888.	3.2	1
71	A modular architecture for mobile robots equipped with continuous-discrete observers. , 2021, , .		0
72	Nonlinear Modeling and Feedback Control of Boom Barrier Automation. IEEE/ASME Transactions on Mechatronics, 2022, , 1-12.	3.7	0