Corrado Possieri

List of Publications by Year
in descending order

96	863	687363	580821
papers	citations	13 h-index	25 g-index

97	97	97	734
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Deadâ€beat regulation of mechanical juggling systems. Asian Journal of Control, 2018, 20, 1-11.	3.0	164
2	A time-varying SIRD model for the COVID-19 contagion in Italy. Annual Reviews in Control, 2020, 50, 361-372.	7.9	135
3	Asymptotic stability in probability for Stochastic Boolean Networks. Automatica, 2017, 83, 1-9.	5.0	41
4	Structural Properties of a Class of Linear Hybrid Systems and Output Feedback Stabilization. IEEE Transactions on Automatic Control, 2017, 62, 2704-2719.	5.7	34
5	Switching Signal Estimator Design for a Class of Elementary Systems. IEEE Transactions on Automatic Control, 2016, 61, 1362-1367.	5.7	26
6	Log-Sum-Exp Neural Networks and Posynomial Models for Convex and Log-Log-Convex Data. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 827-838.	11.3	23
7	A Universal Approximation Result for Difference of Log-Sum-Exp Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 5603-5612.	11.3	22
8	On polynomial feedback Nash equilibria for two-player scalar differential games. Automatica, 2016, 74, 23-29.	5.0	20
9	Sinusoidal disturbance rejection in chaotic planar oscillators. International Journal of Adaptive Control and Signal Processing, 2015, 29, 1578-1590.	4.1	16
10	Application of algebraic geometry techniques in permanent-magnet DC motor fault detection and identification. European Journal of Control, 2015, 25, 39-50.	2.6	16
11	On observer design for a class of continuous-time affine switched or switching systems. , 2014, , .		15
12	An algebraic geometry approach for the computation of all linear feedback Nash equilibria in LQ differential games. , 2015, , .		15
13	Design of local observers for autonomous nonlinear systems not in observability canonical form. Automatica, 2019, 103, 443-449.	5.0	15
14	Algebraic Methods for Multiobjective Optimal Design of Control Feedbacks for Linear Systems. IEEE Transactions on Automatic Control, 2018, 63, 4188-4203.	5.7	14
15	A Newton-like algorithm to compute the inverse of a nonlinear map that converges in finite time. Automatica, 2018, 89, 411-414.	5.0	14
16	A â€œpracticalâ€•observer for nonlinear systems. , 2017, , .		12
17	State-of-charge estimation for leadâ€“acid batteries via embeddings and observers. Control Engineering Practice, 2019, 85, 132-137.	5.5	12
18	On the Use of Difference of Log-Sum-Exp Neural Networks to Solve Data-Driven Model Predictive Control Tracking Problems. , 2021, 5, 1267-1272.		12

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19	LQ optimal control for a class of hybrid systems. , 2016, , .		11
20	Optimal design of lock-down and reopening policies for early-stage epidemics through SIR-D models. Annual Reviews in Control, 2021, 51, 511-524.	7.9	11
21	On the computation of the continuous-time reference trajectory for mechanical juggling systems. , 2015, , .		10
22	Boolean network representation of a continuous-time system and finite-horizon optimal control: application to the single-gene regulatory system for the lac operon. International Journal of Control, 2017, 90, 519-552.	1.9	10
23	Observers for Linear Systems by the Time Integrals and Moving Average of the Output. IEEE Transactions on Automatic Control, 2019, 64, 4859-4874.	5.7	10
24	Output Feedback Q-Learning for Linear-Quadratic Discrete-Time Finite-Horizon Control Problems. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 3274-3281.	11.3	10
25	On f-invariant and attractive affine varieties for continuous-time polynomial systems: The case of robot motion planning. , 2014, , .		9
26	On polynomial vector fields having a given affine variety as attractive and invariant set: application to robotics. International Journal of Control, 2015, , 1-25.	1.9	9
27	Algebraic Certificates of (Semi)Definiteness for Polynomials Over Fields Containing the Rationals. IEEE Transactions on Automatic Control, 2018, 63, 158-173.	5.7	9
28	Overview of the FTU results. Nuclear Fusion, 2019, 59, 112015.	3.5	8
29	Asymptotic Tracking for Nonminimum Phase Linear Systems via Steady-State Compensation. IEEE Transactions on Automatic Control, 2021, 66, 4176-4183.	5.7	8
30	<inline-formula> <tex-math notation="LaTeX">$mathcal{L}_2$</tex-math> </inline-formula>-Gain for Hybrid Linear Systems With Periodic Jumps: A Game Theoretic Approach for Analysis and Design. IEEE Transactions on Automatic Control, 2018, 63, 2496-2507.	5.7	7
31	An Iterative Data-Driven Linear Quadratic Method to Solve Nonlinear Discrete-Time Tracking Problems. IEEE Transactions on Automatic Control, 2021, 66, 5514-5521.	5.7	7
32	Weak reachability and strong recurrence for stochastic directed graphs in terms of auxiliary functions. , 2016, , .		6
33	Newton-like algorithms for the inversion of switched maps. Automatica, 2019, 104, 228-232.	5.0	6
34	Observer design for Boolean control networks with unknown inputs. IET Control Theory and Applications, 2017, 11, 2116-2121.	2.1	5
35	A Lyapunov theorem certifying global weak reachability for stochastic difference inclusions with random inputs. Systems and Control Letters, 2017, 109, 37-42.	2.3	5
36	On High-Gain Practical Observers for Nonlinear Systems. IEEE/CAA Journal of Automatica Sinica, 2018, 5, 691-698.	13.1	5

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37	A Variation on a Random Coordinate Minimization Method for Constrained Polynomial Optimization. , 2018, 2, 531-536.		5
38	Global stabilization of nonlinear systems via hybrid implementation of dynamic continuous-time local controllers. Automatica, 2019, 106, 401-405.	5.0	5
39	Boolean network analysis through the joint use of linear algebra and algebraic geometry. Journal of Theoretical Biology, 2019, 472, 46-53.	1.7	5
40	Stochastic Robust Simulation and Stability Properties of Chemical Reaction Networks. IEEE Transactions on Control of Network Systems, 2019, 6, 2-12.	3.7	5
41	The linear quadratic regulator for periodic hybrid systems. Automatica, 2020, 113, 108772.	5.0	5
42	Online supervised global path planning for AMRs with human-obstacle avoidance. , 2020, , .		5
43	Q-Learning for Continuous-Time Linear Systems: A Data-Driven Implementation of the Kleinman Algorithm. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 6487-6497.	9.3	5
44	Motion planning for a unicycle-like mobile robot, using algebraic attractive curves. , 2014, , .		4
45	Tracking of a Bouncing Ball in a Planar Billiard Through Continuous-Time Approximations. Journal of Computational and Nonlinear Dynamics, 2018, 13, .	1.2	4
46	Design of high-gain observers based on sampled measurements via the interval arithmetic. Automatica, 2021, 131, 109741.	5.0	4
47	A solution to the path planning problem via algebraic geometry and reinforcement learning. Journal of the Franklin Institute, 2022, 359, 1732-1754.	3.4	4
48	Robust constrained model predictive control with persistent model adaptation. , 2016, , .		3
49	Deterministic Optimality of the Steady-State Behavior of the Kalmanâ€“Bucy Filter. , 2019, 3, 793-798.		3
50	Supervised global path planning for mobile robots with obstacle avoidance. , 2019, , .		3
51	Algorithms to compute the largest invariant set contained in an algebraic set for continuous-time and discrete-time nonlinear systems. IEEE/CAA Journal of Automatica Sinica, 2020, 7, 57-69.	13.1	3
52	Distance to Internal Instability of Linear Time-Invariant Systems Under Structured Perturbations. IEEE Transactions on Automatic Control, 2021, 66, 1941-1956.	5.7	3
53	On the Use of the Time-Integrals of the Output in Observer Design for Nonlinear Autonomous Systems. IEEE Transactions on Automatic Control, 2022, 67, 336-343.	5.7	3
54	Algebraic analysis of the structural properties of parametric linear timeâ€invariant systems. IET Control Theory and Applications, 2020, 14, 3568-3579.	2.1	3

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55	Design of a neural virtual sensor for the air and charging system in a Diesel engine. IFAC-PapersOnLine, 2020, 53, 14061-14066.	0.9	3
56	An Algebraic Geometry Approach to Compute Strategically Equivalent Bimatrix Games * *This work is partially supported by the U.S. Army Research Laboratory and the U.S. Office of Naval Research under MURI grant No. N00014-16-1-2710. IFAC-PapersOnLine, 2017, 50, 6116-6121.	0.9	2
57	A mathematical framework for modeling propagation of infectious diseases with mobile individuals. , 2019, , .		2
58	Asymptotic tracking for linear and nonlinear systems: a two-point boundary value formulation. IFAC-PapersOnLine, 2019, 52, 598-603.	0.9	2
59	A symbolic algorithm to compute immersions of polynomial systems into linear ones up to an output injection. Journal of Symbolic Computation, 2020, 99, 1-20.	0.8	2
60	A Finite-Time Local Observer in the Original Coordinates for Nonlinear Control Systems. IEEE Transactions on Automatic Control, 2020, 65, 4808-4815.	5.7	2
61	Modal Consensus of Single Integrators With Minimal â€œDisagreement Interactionâ€•via Distributed Endogenous Internal Model. , 2021, 5, 689-694.		2
62	A dynamical interval Newton method. European Journal of Control, 2021, 59, 290-300.	2.6	2
63	Trajectory tracking in rectangular billiards by unfolding the billiard table. IFAC-PapersOnLine, 2020, 53, 6195-6200.	0.9	2
64	Collision-avoiding decentralized control for vehicle platoons: a mechanical perspective. IFAC-PapersOnLine, 2020, 53, 15235-15240.	0.9	2
65	Data-Driven Policy Iteration for Nonlinear Optimal Control Problems. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 7365-7376.	11.3	2
66	Population Games on 2â€“simplex: existence and efficiency of Nash equilibria. IFAC-PapersOnLine, 2017, 50, 9649-9654.	0.9	1
67	Nonlinear parameter estimation using polynomials and resultants â€“ Application to electrical drives. IFAC-PapersOnLine, 2017, 50, 2776-2781.	0.9	1
68	Synchronization of two gyroscopes with measures affected by an unknown sinusoidal disturbance. , 2017, , .		1
69	Observability analysis of discontinuous dynamical systems via algebraic geometry. , 2019, , .		1
70	Design of controllers for hybrid linear systems with impulsive inputs and periodic jumps. IET Control Theory and Applications, 2019, 13, 1344-1354.	2.1	1
71	Time-optimal control for the hybrid double integrator with state-driven jumps. , 2019, , .		1
72	A linear algebra method to decompose forms whose length is lower than the number of variables into weighted sum of squares. International Journal of Control, 2019, 92, 2647-2666.	1.9	1

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73	Frequency-domain analysis of linear systems with periodic jumps: Definition of hybrid transfer function, pole and zero. Automatica, 2020, 112, 108690.	5.0	1
74	A new metric for understanding hidden political influences from voting records. PLoS ONE, 2020, 15, e0238481.	2.5	1
75	Control analysis and design via randomised coordinate polynomial minimisation. International Journal of Control, 2022, 95, 158-172.	1.9	1
76	Steady-state, harmonic response and moments of linear systems with periodic jumps. European Journal of Control, 2021, 57, 157-162.	2.6	1
77	Output tracking for a class of non-minimum phase nonlinear systems: A two-point boundary value problem formulation with a hybrid regulator. European Journal of Control, 2021, 58, 43-52.	2.6	1
78	Trajectory tracking of a bouncing ball in a triangular billiard by unfolding and folding the billiard table. International Journal of Control, 2022, 95, 2642-2655.	1.9	1
79	Algebraic certificates for the structural properties of parametric linear systems. IFAC-PapersOnLine, 2020, 53, 4676-4681.	0.9	1
80	Reachability Analysis in Stochastic Directed Graphs by Reinforcement Learning. IEEE Transactions on Automatic Control, 2023, 68, 462-469.	5.7	1
81	Local sliding mode inversion algorithms and state observers with space applications. International Journal of Robust and Nonlinear Control, 0, , .	3.7	1
82	Estimation of the basin of attraction of a practical high-gain observer. , 2018, , .		0
83	An Algorithm to Design Pareto Optimal Controllers for Linear Systems. , 2018, , .		0
84	A Certificate of Global Asymptotic Stability for Planar Polynomial Systems. , 2018, , .		0
85	Random Coordinate Minimization Method with Eventual Transverse Directions for Constrained Polynomial Optimization. , 2019, , .		0
86	Algebraic approaches for the design of simultaneous observers for linear systems. IET Control Theory and Applications, 2020, 14, 52-62.	2.1	0
87	On the Use of Difference of Log-Sum-Exp Neural Networks to Solve Data-Driven Model Predictive Control Tracking Problems. , 2021, , .		0
88	A locally convergent continuous-time algorithm to find all the roots of a time-varying polynomial. Automatica, 2021, 131, 109681.	5.0	0
89	On the uniform algebraic observability of multi-switching linear systems. International Journal of Control, 2021, 94, 2175-2185.	1.9	0
90	Algebraic tests for the asymptotic stability of parametric linear systems. IFAC-PapersOnLine, 2020, 53, 4434-4439.	0.9	0

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91	Design of neural high-gain observers for autonomous nonlinear systems using universal differential equations. International Journal of Dynamics and Control, 0, , 1.	2.5	0
92	The directional anti-derivative about a point: existence conditions and some applications. International Journal of Control, 0, , 1-0.	1.9	0
93	A new metric for understanding hidden political influences from voting records. , 2020, 15, e0238481.		0
94	A new metric for understanding hidden political influences from voting records. , 2020, 15, e0238481.		0
95	A new metric for understanding hidden political influences from voting records. , 2020, 15, e0238481.		0
96	A new metric for understanding hidden political influences from voting records. , 2020, 15, e0238481.		0