

# Corrado Possieri

## List of Publications by Year in descending order

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97  
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97  
docs citations

97  
times ranked

734  
citing authors

#	ARTICLE	IF	CITATIONS
1	Data-Driven Policy Iteration for Nonlinear Optimal Control Problems. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 7365-7376.	11.3	2
2	Reachability Analysis in Stochastic Directed Graphs by Reinforcement Learning. IEEE Transactions on Automatic Control, 2023, 68, 462-469.	5.7	1
3	Control analysis and design via randomised coordinate polynomial minimisation. International Journal of Control, 2022, 95, 158-172.	1.9	1
4	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
5	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
6	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
7	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
8	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
9	Modal Consensus of Single Integrators With Minimal "Disagreement Interaction" via Distributed Endogenous Internal Model. , 2021, 5, 689-694.		2
10	Distance to Internal Instability of Linear Time-Invariant Systems Under Structured Perturbations. IEEE Transactions on Automatic Control, 2021, 66, 1941-1956.	5.7	3
11	Steady-state, harmonic response and moments of linear systems with periodic jumps. European Journal of Control, 2021, 57, 157-162.	2.6	1
12	A dynamical interval Newton method. European Journal of Control, 2021, 59, 290-300.	2.6	2
13	Asymptotic Tracking for Nonminimum Phase Linear Systems via Steady-State Compensation. IEEE Transactions on Automatic Control, 2021, 66, 4176-4183.	5.7	8
14	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
15	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
16	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
17	On the Use of Difference of Log-Sum-Exp Neural Networks to Solve Data-Driven Model Predictive Control Tracking Problems. , 2021, , .		0
18	Design of high-gain observers based on sampled measurements via the interval arithmetic. Automatica, 2021, 131, 109741.	5.0	4

#	ARTICLE	IF	CITATIONS
19	A locally convergent continuous-time algorithm to find all the roots of a time-varying polynomial. <i>Automatica</i> , 2021, 131, 109681.	5.0	0
20	An Iterative Data-Driven Linear Quadratic Method to Solve Nonlinear Discrete-Time Tracking Problems. <i>IEEE Transactions on Automatic Control</i> , 2021, 66, 5514-5521.	5.7	7
21	On the uniform algebraic observability of multi-switching linear systems. <i>International Journal of Control</i> , 2021, 94, 2175-2185.	1.9	0
22	Log-Sum-Exp Neural Networks and Posynomial Models for Convex and Log-Log-Convex Data. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2020, 31, 827-838.	11.3	23
23	Algebraic approaches for the design of simultaneous observers for linear systems. <i>IET Control Theory and Applications</i> , 2020, 14, 52-62.	2.1	0
24	The linear quadratic regulator for periodic hybrid systems. <i>Automatica</i> , 2020, 113, 108772.	5.0	5
25	A symbolic algorithm to compute immersions of polynomial systems into linear ones up to an output injection. <i>Journal of Symbolic Computation</i> , 2020, 99, 1-20.	0.8	2
26	Frequency-domain analysis of linear systems with periodic jumps: Definition of hybrid transfer function, pole and zero. <i>Automatica</i> , 2020, 112, 108690.	5.0	1
27	A Finite-Time Local Observer in the Original Coordinates for Nonlinear Control Systems. <i>IEEE Transactions on Automatic Control</i> , 2020, 65, 4808-4815.	5.7	2
28	Online supervised global path planning for AMRs with human-obstacle avoidance. , 2020, , .		5
29	A time-varying SIRD model for the COVID-19 contagion in Italy. <i>Annual Reviews in Control</i> , 2020, 50, 361-372.	7.9	135
30	A new metric for understanding hidden political influences from voting records. <i>PLoS ONE</i> , 2020, 15, e0238481.	2.5	1
31	A Universal Approximation Result for Difference of Log-Sum-Exp Neural Networks. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2020, 31, 5603-5612.	11.3	22
32	Algorithms to compute the largest invariant set contained in an algebraic set for continuous-time and discrete-time nonlinear systems. <i>IEEE/CAA Journal of Automatica Sinica</i> , 2020, 7, 57-69.	13.1	3
33	Trajectory tracking in rectangular billiards by unfolding the billiard table. <i>IFAC-PapersOnLine</i> , 2020, 53, 6195-6200.	0.9	2
34	Algebraic tests for the asymptotic stability of parametric linear systems. <i>IFAC-PapersOnLine</i> , 2020, 53, 4434-4439.	0.9	0
35	Algebraic analysis of the structural properties of parametric linear time-invariant systems. <i>IET Control Theory and Applications</i> , 2020, 14, 3568-3579.	2.1	3
36	Algebraic certificates for the structural properties of parametric linear systems. <i>IFAC-PapersOnLine</i> , 2020, 53, 4676-4681.	0.9	1

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37	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
38	Collision-avoiding decentralized control for vehicle platoons: a mechanical perspective. IFAC-PapersOnLine, 2020, 53, 15235-15240.	0.9	2
39	A new metric for understanding hidden political influences from voting records. , 2020, 15, e0238481.		0
40	A new metric for understanding hidden political influences from voting records. , 2020, 15, e0238481.		0
41	A new metric for understanding hidden political influences from voting records. , 2020, 15, e0238481.		0
42	A new metric for understanding hidden political influences from voting records. , 2020, 15, e0238481.		0
43	Observability analysis of discontinuous dynamical systems via algebraic geometry. , 2019, , .		1
44	Deterministic Optimality of the Steady-State Behavior of the Kalmanâ€“Bucy Filter. , 2019, 3, 793-798.		3
45	Overview of the FTU results. Nuclear Fusion, 2019, 59, 112015.	3.5	8
46	Supervised global path planning for mobile robots with obstacle avoidance. , 2019, , .		3
47	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
48	Global stabilization of nonlinear systems via hybrid implementation of dynamic continuous-time local controllers. Automatica, 2019, 106, 401-405.	5.0	5
49	Design of local observers for autonomous nonlinear systems not in observability canonical form. Automatica, 2019, 103, 443-449.	5.0	15
50	Boolean network analysis through the joint use of linear algebra and algebraic geometry. Journal of Theoretical Biology, 2019, 472, 46-53.	1.7	5
51	State-of-charge estimation for leadâ€“acid batteries via embeddings and observers. Control Engineering Practice, 2019, 85, 132-137.	5.5	12
52	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
53	A mathematical framework for modeling propagation of infectious diseases with mobile individuals. , 2019, , .		2
54	Time-optimal control for the hybrid double integrator with state-driven jumps. , 2019, , .		1

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55	Random Coordinate Minimization Method with Eventual Transverse Directions for Constrained Polynomial Optimization. , 2019, , .		0
56	Asymptotic tracking for linear and nonlinear systems: a two-point boundary value formulation. IFAC-PapersOnLine, 2019, 52, 598-603.	0.9	2
57	Stochastic Robust Simulation and Stability Properties of Chemical Reaction Networks. IEEE Transactions on Control of Network Systems, 2019, 6, 2-12.	3.7	5
58	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
59	Newton-like algorithms for the inversion of switched maps. Automatica, 2019, 104, 228-232.	5.0	6
60	$\mathcal{L}_2$ -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
61	Algebraic Certificates of (Semi)Definiteness for Polynomials Over Fields Containing the Rationals. IEEE Transactions on Automatic Control, 2018, 63, 158-173.	5.7	9
62	On High-Gain Practical Observers for Nonlinear Systems. IEEE/CAA Journal of Automatica Sinica, 2018, 5, 691-698.	13.1	5
63	Algebraic Methods for Multiobjective Optimal Design of Control Feedbacks for Linear Systems. IEEE Transactions on Automatic Control, 2018, 63, 4188-4203.	5.7	14
64	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
65	Deadbeat regulation of mechanical juggling systems. Asian Journal of Control, 2018, 20, 1-11.	3.0	164
66	Estimation of the basin of attraction of a practical high-gain observer. , 2018, , .		0
67	An Algorithm to Design Pareto Optimal Controllers for Linear Systems. , 2018, , .		0
68	A Certificate of Global Asymptotic Stability for Planar Polynomial Systems. , 2018, , .		0
69	Tracking of a Bouncing Ball in a Planar Billiard Through Continuous-Time Approximations. Journal of Computational and Nonlinear Dynamics, 2018, 13, .	1.2	4
70	A Variation on a Random Coordinate Minimization Method for Constrained Polynomial Optimization. , 2018, 2, 531-536.		5
71	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
72	Asymptotic stability in probability for Stochastic Boolean Networks. Automatica, 2017, 83, 1-9.	5.0	41

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73	Observer design for Boolean control networks with unknown inputs. IET Control Theory and Applications, 2017, 11, 2116-2121.	2.1	5
74	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
75	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
76	Population Games on 2-simplex: existence and efficiency of Nash equilibria. IFAC-PapersOnLine, 2017, 50, 9649-9654.	0.9	1
77	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
78	Nonlinear parameter estimation using polynomials and resultants – Application to electrical drives. IFAC-PapersOnLine, 2017, 50, 2776-2781.	0.9	1
79	A “practical” observer for nonlinear systems. , 2017, , .		12
80	Synchronization of two gyroscopes with measures affected by an unknown sinusoidal disturbance. , 2017, , .		1
81	LQ optimal control for a class of hybrid systems. , 2016, , .		11
82	Weak reachability and strong recurrence for stochastic directed graphs in terms of auxiliary functions. , 2016, , .		6
83	Robust constrained model predictive control with persistent model adaptation. , 2016, , .		3
84	Switching Signal Estimator Design for a Class of Elementary Systems. IEEE Transactions on Automatic Control, 2016, 61, 1362-1367.	5.7	26
85	On polynomial feedback Nash equilibria for two-player scalar differential games. Automatica, 2016, 74, 23-29.	5.0	20
86	On the computation of the continuous-time reference trajectory for mechanical juggling systems. , 2015, , .		10
87	Sinusoidal disturbance rejection in chaotic planar oscillators. International Journal of Adaptive Control and Signal Processing, 2015, 29, 1578-1590.	4.1	16
88	An algebraic geometry approach for the computation of all linear feedback Nash equilibria in LQ differential games. , 2015, , .		15
89	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
90	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

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91	On f-invariant and attractive affine varieties for continuous-time polynomial systems: The case of robot motion planning. , 2014, , .		9
92	On observer design for a class of continuous-time affine switched or switching systems. , 2014, , .		15
93	Motion planning for a unicycle-like mobile robot, using algebraic attractive curves. , 2014, , .		4
94	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
95	The directional anti-derivative about a point: existence conditions and some applications. International Journal of Control, 0, , 1-0.	1.9	0
96	Local sliding mode inversion algorithms and state observers with space applications. International Journal of Robust and Nonlinear Control, 0, , .	3.7	1