

Alessandro Colombo

List of Publications by Year in descending order

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Version: 2024-02-01

49
papers

954
citations

623734

14
h-index

580821

25
g-index

50
all docs

50
docs citations

50
times ranked

596
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Least Restrictive Supervisors for Intersection Collision Avoidance: A Scheduling Approach. IEEE Transactions on Automatic Control, 2015, 60, 1515-1527. | 5.7 | 104 |
| 2 | Efficient algorithms for collision avoidance at intersections. , 2012, , . | | 95 |
| 3 | Bifurcations of piecewise smooth flows: Perspectives, methodologies and open problems. Physica D: Nonlinear Phenomena, 2012, 241, 1845-1860. | 2.8 | 92 |
| 4 | The Two-Fold Singularity of Discontinuous Vector Fields. SIAM Journal on Applied Dynamical Systems, 2009, 8, 624-640. | 1.6 | 70 |
| 5 | Nondeterministic Chaos, and the Two-fold Singularity in Piecewise Smooth Flows. SIAM Journal on Applied Dynamical Systems, 2011, 10, 423-451. | 1.6 | 69 |
| 6 | Robust multi-agent collision avoidance through scheduling. , 2013, , . | | 35 |
| 7 | Teixeira singularities in 3D switched feedback control systems. Systems and Control Letters, 2010, 59, 615-622. | 2.3 | 34 |
| 8 | Two Degenerate Boundary Equilibrium Bifurcations in Planar Filippov Systems. SIAM Journal on Applied Dynamical Systems, 2011, 10, 1525-1553. | 1.6 | 33 |
| 9 | Discontinuity Induced Bifurcations of Nonhyperbolic Cycles in Nonsmooth Systems. SIAM Journal on Applied Dynamical Systems, 2010, 9, 62-83. | 1.6 | 32 |
| 10 | Supervisory control for intersection collision avoidance in the presence of uncontrolled vehicles. , 2014, , . | | 31 |
| 11 | Full Characterization of Act-and-wait Control for First-order Unstable Lag Processes. JVC/Journal of Vibration and Control, 2010, 16, 1209-1233. | 2.6 | 24 |
| 12 | The two-fold singularity of nonsmooth flows: Leading order dynamics in -dimensions. Physica D: Nonlinear Phenomena, 2013, 263, 1-10. | 2.8 | 23 |
| 13 | Optimal Control Design for Perturbed Constrained Networked Control Systems. , 2021, 5, 553-558. | | 21 |
| 14 | Supervisory control of differentially flat systems based on abstraction. , 2011, , . | | 20 |
| 15 | Complex Dynamics in a Hysteretic Relay Feedback System with Delay. Journal of Nonlinear Science, 2007, 17, 85-108. | 2.1 | 19 |
| 16 | Control of a City Road Network: Distributed Exact Verification of Traffic Safety. IEEE Transactions on Automatic Control, 2017, 62, 4933-4948. | 5.7 | 19 |
| 17 | Optimal and least restrictive supervisory control: Safety verification methods for human-driven vehicles at traffic intersections. , 2015, , . | | 17 |
| 18 | Remarks on Metacommunity Synchronization with Application to Preyâ€Predator Systems. American Naturalist, 2008, 171, 430-442. | 2.1 | 16 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Two-Parameter Bifurcation Analysis of the Buck Converter. SIAM Journal on Applied Dynamical Systems, 2009, 8, 1507-1522. | 1.6 | 16 |
| 20 | Supervisory control for collision avoidance in vehicular networks with imperfect measurements. , 2013, , . | | 16 |
| 21 | Experimental testing of a semi-autonomous multi-vehicle collision avoidance algorithm at an intersection testbed. , 2015, , . | | 15 |
| 22 | Supervisory control for collision avoidance in vehicular networks using discrete event abstractions. , 2013, , . | | 14 |
| 23 | Supervisory control for collision avoidance in vehicular networks using discrete event abstractions. Discrete Event Dynamic Systems: Theory and Applications, 2017, 27, 1-44. | 1.5 | 14 |
| 24 | Two-fold singularity in nonsmooth electrical systems. , 2011, , . | | 13 |
| 25 | Boundary intersection crossing bifurcation in the presence of sliding. Physica D: Nonlinear Phenomena, 2008, 237, 2900-2912. | 2.8 | 12 |
| 26 | A mathematical framework for cooperative collision avoidance of human-driven vehicles at intersections. , 2014, , . | | 10 |
| 27 | Safety Verification Methods for Human-Driven Vehicles at Traffic Intersections: Optimal Driver-Adaptive Supervisory Control. IEEE Transactions on Human-Machine Systems, 2018, 48, 72-84. | 3.5 | 10 |
| 28 | A nonlinear model of bicycle shimmy. Vehicle System Dynamics, 2019, 57, 315-335. | 3.7 | 10 |
| 29 | Connectivity interplays with age in shaping contagion over networks with vital dynamics. Physical Review E, 2015, 91, 022809. | 2.1 | 9 |
| 30 | Enforcing safety of cyberphysical systems using flatness and abstraction. ACM SIGBED Review, 2011, 8, 11-14. | 1.8 | 8 |
| 31 | Measurement Scheduling for Control Invariance in Networked Control Systems. , 2018, , . | | 8 |
| 32 | An approximate abstraction approach to safety control of differentially flat systems. , 2013, , . | | 7 |
| 33 | BIFURCATION ANALYSIS OF AN IMPACT MODEL FOR FOREST FIRE PREDICTION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 2275-2288. | 1.7 | 6 |
| 34 | Composition of Least Restrictive Controllers, With Application to Collision Avoidance in Multiagent Systems. IEEE Transactions on Automatic Control, 2018, 63, 3972-3978. | 5.7 | 6 |
| 35 | Receding-horizon robust online communication scheduling for constrained networked control systems. , 2019, , . | | 5 |
| 36 | CHAOS IN TWO-PARTY DEMOCRACIES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 2133-2140. | 1.7 | 4 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Abstraction-Based Safety Verification and Control of Cooperative Vehicles at Road Intersections. IEEE Transactions on Automatic Control, 2020, 65, 4061-4074. | 5.7 | 4 |
| 38 | Cooperative Intersection Collision Avoidance in a Constrained Communication Environment. , 2015, , . | | 3 |
| 39 | Optimal scheduling and control for constrained multi-agent networked control systems. Optimal Control Applications and Methods, 0, , . | 2.1 | 3 |
| 40 | Robust Supervisors for Intersection Collision Avoidance in the Presence of Legacy Vehicles. International Journal of Control, Automation and Systems, 2020, 18, 384-393. | 2.7 | 2 |
| 41 | Scheduling and Robust Invariance in Networked Control Systems. IEEE Transactions on Automatic Control, 2022, 67, 3075-3082. | 5.7 | 2 |
| 42 | On the Boundaries of Basins of Attraction in Piecewise Smooth Systems. , 2010, , . | | 1 |
| 43 | Necessary and Sufficient Conditions for the Noninvertibility of Fundamental Solution Matrices of a Discontinuous System. SIAM Journal on Applied Dynamical Systems, 2016, 15, 84-105. | 1.6 | 1 |
| 44 | Computational techniques to locate crossing/sliding regions and their sets of attraction in non-smooth dynamical systems. Discrete and Continuous Dynamical Systems - Series B, 2018, 23, 2911-2934. | 0.9 | 1 |
| 45 | BORDER COLLISION OF NON-HYPERBOLIC FIXED POINTS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 98-103. | 0.4 | 0 |
| 46 | Codimension-two singularities on the stability boundary in 2D Filippov systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 13281-13286. | 0.4 | 0 |
| 47 | Numerically efficient robustness test for nonlinear circuit models. , 2015, , . | | 0 |
| 48 | Constant-time discontinuity map for forward sensitivity analysis to initial conditions: Spurs detection in fractional-N PLL as a case study. , 2017, , . | | 0 |
| 49 | The Basic Reproduction Number as a Loop Gain Matrix. , 2022, 6, 199-204. | | 0 |