

Mara Tanelli

List of Publications by Year in descending order

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Version: 2024-02-01

140
papers

2,303
citations

218592

26
h-index

276775

41
g-index

148
all docs

148
docs citations

148
times ranked

1400
citing authors

#	ARTICLE	IF	CITATIONS
1	Active Braking Control Systems Design for Vehicles. <i>Advances in Industrial Control</i> , 2010, , .	0.4	146
2	Robust nonlinear output feedback control for brake by wire control systems. <i>Automatica</i> , 2008, 44, 1078-1087.	3.0	102
3	Real-time identification of tireâ€œroad friction conditions. <i>IET Control Theory and Applications</i> , 2009, 3, 891-906.	1.2	99
4	Torque blending and wheel slip control in EVs with in-wheel motors. <i>Vehicle System Dynamics</i> , 2012, 50, 71-94.	2.2	95
5	Mixed Slip-Deceleration Control in Automotive Braking Systems. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2006, 129, 20-31.	0.9	84
6	On optimal motorcycle braking. <i>Control Engineering Practice</i> , 2008, 16, 644-657.	3.2	81
7	Data-Driven Design of Braking Control Systems. <i>IEEE Transactions on Control Systems Technology</i> , 2013, 21, 186-193.	3.2	75
8	Almost Sure Stabilization of Uncertain Continuous-Time Markov Jump Linear Systems. <i>IEEE Transactions on Automatic Control</i> , 2010, 55, 195-201.	3.6	57
9	Traction Control for Ride-by-Wire Sport Motorcycles: A Second-Order Sliding Mode Approach. <i>IEEE Transactions on Industrial Electronics</i> , 2009, 56, 3347-3356.	5.2	56
10	Switched model predictive control for performance enhancement. <i>International Journal of Control</i> , 2008, 81, 1859-1869.	1.2	52
11	Switched/time-based adaptation for second-order sliding mode control. <i>Automatica</i> , 2016, 64, 126-132.	3.0	51
12	New Regressors for the Direct Identification of Tire Deformation in Road Vehicles Via â€œIn-Tireâ€œ Accelerometers. <i>IEEE Transactions on Control Systems Technology</i> , 2008, 16, 769-780.	3.2	46
13	Human-in-the-Loop Bicycle Control via Active Heart Rate Regulation. <i>IEEE Transactions on Control Systems Technology</i> , 2015, 23, 1029-1040.	3.2	46
14	Roll angle estimation in two-wheeled vehicles. <i>IET Control Theory and Applications</i> , 2009, 3, 20-32.	1.2	44
15	Transmission control for power-shift agricultural tractors: Design and end-of-line automatic tuning. <i>Mechatronics</i> , 2011, 21, 285-297.	2.0	42
16	Combining Slip and Deceleration Control for Brake-by-wire Control Systems: A Sliding-mode Approach. <i>European Journal of Control</i> , 2007, 13, 593-611.	1.6	41
17	Design and Validation of a Gain-Scheduled Controller for the Electronic Throttle Body in Ride-by-Wire Racing Motorcycles. <i>IEEE Transactions on Control Systems Technology</i> , 2011, 19, 18-30.	3.2	40
18	Existence, stability and robustness analysis of limit cycles in hybrid anti-lock braking systems. <i>International Journal of Control</i> , 2009, 82, 659-678.	1.2	35

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19	Enhancing Robustness and Performance via Switched Second Order Sliding Mode Control. IEEE Transactions on Automatic Control, 2013, 58, 962-974.	3.6	35
20	Designing On-Demand Four-Wheel-Drive Vehicles via Active Control of the Central Transfer Case. IEEE Transactions on Intelligent Transportation Systems, 2010, 11, 931-941.	4.7	32
21	Optical Sensors for Real-Time Measurement of Motorcycle Tilt Angle. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 1640-1649.	2.4	30
22	A Smartphone-in-the-Loop Active State-of-Charge Manager for Electric Vehicles. IEEE/ASME Transactions on Mechatronics, 2012, 17, 454-463.	3.7	30
23	Semi-Active Steering Damper Control in Two-Wheeled Vehicles. IEEE Transactions on Control Systems Technology, 2011, 19, 1003-1020.	3.2	29
24	Design of safety-oriented control allocation strategies for overactuated electric vehicles. Vehicle System Dynamics, 2014, 52, 1017-1046.	2.2	29
25	Active braking control of two-wheeled vehicles on curves. International Journal of Vehicle Autonomous Systems, 2009, 7, 243.	0.2	28
26	Identification of LPV State Space Models for Autonomic Web Service Systems. IEEE Transactions on Control Systems Technology, 2011, 19, 93-103.	3.2	27
27	Longitudinal vehicle speed estimation for traction and braking control systems. , 2006, , .		26
28	A Security Layer for Smartphone-to-Vehicle Communication Over Bluetooth. IEEE Embedded Systems Letters, 2013, 5, 34-37.	1.3	24
29	Minimum-time manoeuvring in electric vehicles with four wheel-individual-motors. Vehicle System Dynamics, 2014, 52, 824-846.	2.2	24
30	Combined vehicle velocity and tire-road friction estimation via sliding mode observers. , 2012, , .		23
31	A General Framework for Switched and Variable Gain Higher Order Sliding Mode Control. IEEE Transactions on Automatic Control, 2021, 66, 1718-1724.	3.6	23
32	Quantitative Driving Style Estimation for Energy-Oriented Applications in Road Vehicles. , 2013, , .		22
33	Minimum-Time Path-Following for Highly Redundant Electric Vehicles. IEEE Transactions on Control Systems Technology, 2016, 24, 487-501.	3.2	22
34	Frequency Compensation for a Self-Mixing Interferometer. IEEE Transactions on Instrumentation and Measurement, 2010, 59, 1368-1374.	2.4	21
35	Analysis and design of an automatic motion inverter. IEEE/ASME Transactions on Mechatronics, 2006, 11, 346-357.	3.7	20
36	Non-local extremum seeking control for active braking control systems. , 2006, , .		19

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37	Longitudinal Vehicle Speed Estimation for Traction and Braking Control Systems. , 2006, , .		19
38	Electronic Stability Control for Powered Two-Wheelers. IEEE Transactions on Control Systems Technology, 2014, 22, 265-272.	3.2	19
39	Lean angle estimation in two-wheeled vehicles with a reduced sensor configuration. , 2012, , .		18
40	Single-Sensor Control Strategies for Semi-Active Steering Damper Control in Two-Wheeled Vehicles. IEEE Transactions on Vehicular Technology, 2012, 61, 813-820.	3.9	17
41	Ethogram-based automatic wild animal monitoring through inertial sensors and GPS data. Ecological Informatics, 2020, 59, 101112.	2.3	17
42	Active Energy-Aware Management of Business-Process Based Applications. Lecture Notes in Computer Science, 2008, , 183-195.	1.0	17
43	Limit cycles analysis in hybrid anti-lock braking systems. , 2007, , .		16
44	LPV model identification for power management of Web service systems. , 2008, , .		16
45	Performance Assessment of Active Aerodynamic Surfaces for Comfort and Handling Optimization in Sport Cars. IEEE Transactions on Control Systems Technology, 2016, 24, 189-199.	3.2	16
46	Roll angle estimation in two-wheeled vehicles. , 2008, , .		15
47	Real-time identification of tire-road friction conditions. , 2008, , .		15
48	Electronic throttle control for ride-by-wire in sport motorcycles. , 2008, , .		15
49	Black-box performance models for virtualized web service applications. , 2010, , .		14
50	Switched Second-Order Sliding Mode Control with Partial Information: Theory and Application. Asian Journal of Control, 2013, 15, 20-30.	1.9	13
51	Combined switched/time-based adaptation in second order sliding mode control. , 2013, , .		13
52	Object-oriented modelling and simulation of a motorcycle. Mathematical and Computer Modelling of Dynamical Systems, 2008, 14, 79-100.	1.4	12
53	Model Identification for Energy-Aware Management of Web Service Systems. Lecture Notes in Computer Science, 2008, , 599-606.	1.0	12
54	Advanced yaw control of four-wheeled vehicles via rear active differential braking. , 2009, , .		11

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55	Enhancing active safety of two-wheeled vehicles via electronic stability control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 638-643.	0.4	11
56	Self-calibration algorithm for an IMU in two-wheeled vehicles: design and experimental validation. , 2018, , .		11
57	Real-time continuous estimation of dross attachment in the laser cutting process based on process emission images. Journal of Laser Applications, 2020, 32, .	0.8	11
58	Automatic stimuli classification from ERP data for augmented communication via Brainâ€“Computer Interfaces. Expert Systems With Applications, 2021, 184, 115572.	4.4	11
59	On- and off-line model identification for power management of Web service systems. , 2008, , .		10
60	Control-Oriented Vehicle Attitude Estimation With Online Sensors Bias Compensation. , 2009, , .		10
61	Switched second order sliding mode control. , 2010, , .		10
62	Active Control of Aerodynamic Surfaces for Ride Control in Sport Vehicles. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 7553-7558.	0.4	10
63	Control-oriented energy-profiling and modelling of urban electric vehicles. , 2011, , .		9
64	Electrification Potential of Fuel-Based Vehicles and Optimal Placing of Charging Infrastructure: A Large-Scale Vehicle-Telematics Approach. IEEE Transactions on Transportation Electrification, 2022, 8, 466-479.	5.3	9
65	Analysing the interaction between braking control and speed estimation: The case of two-wheeled vehicles. , 2008, , .		8
66	Switched second order sliding mode for wheel slip control of road vehicles. , 2010, , .		8
67	Cyclist Heart Rate Control via a Continuously Varying Transmission. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 912-917.	0.4	8
68	Automatic crash detection system for two-wheeled vehicles: design and experimental validation. IFAC-PapersOnLine, 2019, 52, 498-503.	0.5	8
69	Combined performance and stability optimisation via central transfer case active control in four-wheeled vehicles. , 2009, , .		7
70	Active braking control for two-wheeled vehicles via switched second order sliding modes. , 2011, , .		7
71	Time-based switched sliding mode control for yaw rate regulation in two-wheeled vehicles. , 2012, , .		7
72	A Flexible Architecture for Managing Vehicle Sharing Systems. IEEE Embedded Systems Letters, 2013, 5, 30-33.	1.3	7

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73	Launch control for sport motorcycles: A clutch-based approach. Control Engineering Practice, 2013, 21, 1756-1766.	3.2	7
74	Online Assessment of Driving Riskiness via Smartphone-Based Inertial Measurements. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 5555-5565.	4.7	7
75	MEMS-Enabled Retrofitting of Automobile Wheel Balancer for Automatic Unbalance Detection. IEEE/ASME Transactions on Mechatronics, 2021, 26, 830-840.	3.7	7
76	Robust Nonlinear Proportional-Integral Control for Active Braking Control Systems. , 2006, , .		6
77	Transmission control for power-shift agricultural tractors. , 2010, , .		6
78	Towards Electronic Stability Control for Two-Wheeled Vehicles: A Preliminary Study. , 2010, , .		6
79	Design of steering angle observers for the active control of two-wheeled vehicles. , 2010, , .		6
80	Control-oriented analysis and quality assessment of gear shifting in motorcycles. , 2011, , .		6
81	Speed and acceleration controllers for a light electric two-wheeled vehicle. , 2011, , .		6
82	Identification and control of a motorcycle electro-hydraulic clutch. , 2012, , .		6
83	Torque allocation in electric vehicles with in-wheel motors: A performance-oriented approach. , 2013, , .		6
84	A Novel Crash Detection Algorithm for Two-Wheeled Vehicles. IEEE Transactions on Intelligent Vehicles, 2021, 6, 88-99.	9.4	6
85	A comparison of model-based and black-box methods for speed estimation in aircraft. IFAC-PapersOnLine, 2020, 53, 14775-14780.	0.5	6
86	GOLIATH: A Decentralized Framework for Data Collection in Intelligent Transportation Systems. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 13372-13385.	4.7	6
87	Flight regimes recognition in actual operating conditions: A functional data analysis approach. Engineering Applications of Artificial Intelligence, 2022, 114, 105016.	4.3	6
88	Second Order Sliding Mode for traction control in ride-by-wire sport motorcycles. , 2009, , .		5
89	Automatic end-of-line tuning for a motion inverter in agricultural tractors. Control Engineering Practice, 2010, 18, 1342-1355.	3.2	5
90	Linear Parametrically Varying MPC for combined Quality of Service and energy management in Web service systems. , 2010, , .		5

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91	A Novel Electric Vehicle for Smart Indoor Mobility. IEEE Transactions on Intelligent Transportation Systems, 2014, 15, 1429-1440.	4.7	5
92	Tire-Wear Control in Aircraft via Active Braking. IEEE Transactions on Control Systems Technology, 2021, 29, 984-995.	3.2	5
93	A Control-Theoretic Approach for the Combined Management of Quality-of-Service and Energy in Service Centers. , 2010, , 73-96.		5
94	On Almost Sure Stabilization of Continuous-Time Markov Jump Linear Systems. , 0, , .		4
95	On Transmission-Ratio Computation for the Control of a Continuously Variable Transmission in Agricultural Tractors. Proceedings of the American Control Conference, 2007, , .	0.0	4
96	Characterization of Optical Sensors for Real-Time Measurement of Motorcycle Tilt Angles. , 2008, , .		4
97	Estimating the maneuver quality of an automatic motion inverter for end-of-line tuning in agricultural tractors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 10726-10731.	0.4	4
98	Model-free control for active braking systems in sport motorcycles *. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 873-878.	0.4	4
99	Wheel-slip estimation for advanced braking controllers in aircraft: Model based vs. black-box approaches. Control Engineering Practice, 2021, 117, 104950.	3.2	4
100	Object- Oriented Multibody Motorcycle Modelling for Control Systems Prototyping. , 2006, , .		4
101	Management of angular speed sensors for control at the power-zero condition of a continuously variable transmission: A describing-function approach. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering. 2008, 222, 2269-2282.	1.1	3
102	Wheel slip control of road vehicles via switched second order sliding modes. International Journal of Vehicle Design, 2013, 62, 231.	0.1	3
103	Switched third-order sliding mode control. , 2016, , .		3
104	Analysis and Development of a Novel Algorithm for the In-vehicle Hand-Usage of a Smartphone. , 2018, , .		3
105	A wheel slip control scheme for aeronautical braking applications based on neural network estimation. European Journal of Control, 2022, 68, 100691.	1.6	3
106	System-level metrics for hardware/software architectural mapping. , 0, , .		2
107	On Robust Almost Sure Stabilization of Continuous-Time Markov Jump Linear Systems. , 2006, , .		2
108	Object-oriented multibody motorcycle modelling for control systems prototyping. , 2006, , .		2

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109	Controller design and closed-loop stability analysis for admission control in Web service systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6709-6714.	0.4	2
110	Switched second order sliding mode control with partial information. , 2011, , .		2
111	A switched second-order sliding mode control algorithm for non-affine systems with saturations. , 2012, , .		2
112	Automatic Gear Shifting in Sport Motorcycles. IEEE Transactions on Vehicular Technology, 2014, 63, 2173-2182.	3.9	2
113	Hierarchical control of overactuated vehicles via sliding mode techniques. , 2014, , .		2
114	Design of rapid first-aid alert systems for 2-wheeled vehicles via smartphonesâ€™ inertial sensors. IFAC-PapersOnLine, 2016, 49, 541-546.	0.5	2
115	Sliding mode control for LPV systems. , 2016, , .		2
116	Guest Editorial: Holistic Approaches for Humanâ€™Vehicle Systems: Combining Models, Interactions, and Control. IEEE Transactions on Human-Machine Systems, 2017, 47, 609-613.	2.5	2
117	Switched adaptation strategies for integral sliding mode control: Theory and application. International Journal of Robust and Nonlinear Control, 2019, 29, 6064-6080.	2.1	2
118	A Data-Driven, Vehicle-Independent Usage Monitoring System for Shared Fleets: Assessing Vertical and Longitudinal Wear. IEEE Vehicular Technology Magazine, 2022, 17, 85-93.	2.8	2
119	Control of power-shuttle motion-inverter. , 0, , .		1
120	Control-oriented multirate LPV modelling of virtualized service center environments. , 2009, , .		1
121	Measurement of wavelength-modulation frequency response in a self-mixing interferometer. , 2009, , .		1
122	Linear parameter-varying model identification with structure selection for autonomic web service systems. IET Control Theory and Applications, 2012, 6, 1889-1898.	1.2	1
123	Clutch-based launch controller design for sport motorcycles. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 797-802.	0.4	1
124	Switched Integral Suboptimal Second-Order Sliding Mode Control. , 2017, , .		1
125	Automatic driver phone hand-usage detection: A cepstrum-based approach. , 2019, , .		1
126	Vehicle Vertical Wearing Index (V2 WI): active monitoring of wearing and aging of vertical-dynamics components in four-wheeled vehicles. , 2020, , .		1

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127	Optimising the braking performance via nonlinear analysis and bifurcation theory. , 2008, , .		0
128	Towards the Exhaustive Verification of Real-Time Aspects in Controller Implementation. , 2008, , .		0
129	Enhanced Switched Second Order SM Control for Active Braking in Two-wheeled Vehicles. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 11919-11924.	0.4	0
130	Electro-mechanical clutch-by-wire control for sport motorcycles. , 2014, , .		0
131	Minimum-time Path Following in Highly Redundant Electric Vehicles. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 3918-3923.	0.4	0
132	Braking Control Systems Design: Actuators with Continuous Dynamics. Advances in Industrial Control, 2010, , 55-84.	0.4	0
133	Braking Control Systems Design: Actuators with Discrete Dynamics. Advances in Industrial Control, 2010, , 85-105.	0.4	0
134	Nonlinear Wheel Slip Control Design. Advances in Industrial Control, 2010, , 143-158.	0.4	0
135	Control-oriented Models of Braking Dynamics. Advances in Industrial Control, 2010, , 17-52.	0.4	0
136	Mixed Slip and Deceleration Control. Advances in Industrial Control, 2010, , 123-141.	0.4	0
137	An Energy Management System for Light Two-Wheeled Vehicles Based on a Smartphone-in-the-Loop Architecture. Lecture Notes in Mobility, 2013, , 137-146.	0.2	0
138	Active monitoring of the state of motion in two-wheeled vehicles in absence of a valid GPS/GNSS signal. IFAC-PapersOnLine, 2020, 53, 15489-15494.	0.5	0
139	Real-time velocity regulation for productivity optimization in laser cutting. IFAC-PapersOnLine, 2021, 54, 1230-1235.	0.5	0
140	Enhanced Variable-Gain Sliding Mode Control for Robot Manipulators. , 2021, , .		0