

Matteo Rubagotti

List of Publications by Year in descending order

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55
papers

1,421
citations

471061

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docs citations

55
times ranked

1345
citing authors

#	ARTICLE	IF	CITATIONS
1	End-to-End Deep Fault-Tolerant Control. IEEE/ASME Transactions on Mechatronics, 2022, 27, 2224-2234.	3.7	4
2	Adaptive super-twisting sliding mode control for maximum power point tracking of PMSG-based wind energy conversion systems. Renewable Energy, 2022, 183, 877-889.	4.3	36
3	Perceived safety in physical human-robot interaction-A survey. Robotics and Autonomous Systems, 2022, 151, 104047.	3.0	35
4	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
5	Constrained Nonlinear Discrete-Time Sliding Mode Control Based on a Receding Horizon Approach. IEEE Transactions on Automatic Control, 2021, 66, 3802-3809.	3.6	25
6	Safety-Aware Nonlinear Model Predictive Control for Physical Human-Robot Interaction. IEEE Robotics and Automation Letters, 2021, 6, 5665-5672.	3.3	17
7	Enhanced Variable-Gain Sliding Mode Control for Robot Manipulators. , 2021, , .		0
8	Neural Network Augmented Sensor Fusion for Pose Estimation of Tensegrity Manipulators. IEEE Sensors Journal, 2020, 20, 3655-3666.	2.4	17
9	Deep Learning-Based Approximate Optimal Control of a Reaction-Wheel-Actuated Spherical Inverted Pendulum. , 2020, , .		6
10	An Open-Source 7-DOF Wireless Human Arm Motion-Tracking System for Use in Robotics Research. Sensors, 2020, 20, 3082.	2.1	15
11	Semi-Autonomous Robot Teleoperation With Obstacle Avoidance via Model Predictive Control. IEEE Robotics and Automation Letters, 2019, 4, 2746-2753.	3.3	40
12	Energy-Aware Optimal Control of Variable Stiffness Actuated Robots. IEEE Robotics and Automation Letters, 2019, 4, 330-337.	3.3	7
13	Constrained Orientation Control of a Spherical Parallel Manipulator via Online Convex Optimization. IEEE/ASME Transactions on Mechatronics, 2018, 23, 252-261.	3.7	19
14	A Discrete-Time Optimization-Based Sliding Mode Control Law for Linear Systems with Input and State Constraints. , 2018, , .		2
15	Optimal energy management of a small-size building via hybrid model predictive control. Energy and Buildings, 2017, 140, 1-8.	3.1	43
16	Time-Optimal Control of Variable-Stiffness-Actuated Systems. IEEE/ASME Transactions on Mechatronics, 2017, 22, 1247-1258.	3.7	22
17	Sliding Mode Control of Constrained Nonlinear Systems. IEEE Transactions on Automatic Control, 2017, 62, 2965-2972.	3.6	164
18	Real-time model predictive control based on dual gradient projection: Theory and fixed-point FPGA implementation. International Journal of Robust and Nonlinear Control, 2016, 26, 3292-3310.	2.1	10

#	ARTICLE	IF	CITATIONS
19	Switched third-order sliding mode control. , 2016, , .		3
20	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
21	Integrated optimal design and control of variable stiffness actuated robots. , 2015, , .		3
22	Closed-Loop Control of Variable Stiffness Actuated Robots via Nonlinear Model Predictive Control. IEEE Access, 2015, 3, 235-248.	2.6	91
23	Hybrid model predictive control for optimal energy management of a smart house. , 2015, , .		7
24	Numerical Optimal Control of a Spherical Parallel Manipulator Based on Unique Kinematic Solutions. IEEE/ASME Transactions on Mechatronics, 2015, , 1-1.	3.7	17
25	Multirate sliding mode disturbance compensation for model predictive control. International Journal of Robust and Nonlinear Control, 2015, 25, 2984-3003.	2.1	25
26	Low-complexity piecewise-affine virtual sensors: theory and design. International Journal of Control, 2014, 87, 622-632.	1.2	4
27	Robust explicit model predictive control via regular piecewise-affine approximation. International Journal of Control, 2014, 87, 2583-2593.	1.2	16
28	Stabilizing Linear Model Predictive Control Under Inexact Numerical Optimization. IEEE Transactions on Automatic Control, 2014, 59, 1660-1666.	3.6	45
29	Third order Sliding Mode Control with box state constraints. , 2014, , .		8
30	Stability and Invariance Analysis of Uncertain Discrete-Time Piecewise Affine Systems. IEEE Transactions on Automatic Control, 2013, 58, 2359-2365.	3.6	16
31	Stabilizing embedded MPC with computational complexity guarantees. , 2013, , .		3
32	Piecewise affine direct virtual sensors with Reduced Complexity. , 2012, , .		1
33	Platooning control of autonomous nonholonomic mobile robots in a human-robot coexisting environment. , 2012, , .		3
34	Approximate Explicit MPC on Simplicial Partitions with Guaranteed Stability for Constrained Linear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 119-125.	0.4	2
35	MOBY-DIC: A MATLAB Toolbox for Circuit-Oriented Design of Explicit MPC. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 218-225.	0.4	10
36	High-Speed Piecewise Affine Virtual Sensors. IEEE Transactions on Industrial Electronics, 2012, 59, 1228-1237.	5.2	16

#	ARTICLE	IF	CITATIONS
37	Stability analysis of discrete-time piecewise-affine systems over non-invariant domains. , 2012, , .		4
38	Modeling and control of an airbrake electro-hydraulic smart actuator. Asian Journal of Control, 2012, 14, 1159-1170.	1.9	10
39	Sliding mode observers for sensorless control of current-fed induction motors. , 2011, , .		8
40	Robust Model Predictive Control With Integral Sliding Mode in Continuous-Time Sampled-Data Nonlinear Systems. IEEE Transactions on Automatic Control, 2011, 56, 556-570.	3.6	156
41	Integral Sliding Mode Control for Nonlinear Systems With Matched and Unmatched Perturbations. IEEE Transactions on Automatic Control, 2011, 56, 2699-2704.	3.6	229
42	Stability and Invariance Analysis of Approximate Explicit MPC based on PWA Lyapunov Functions. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 5712-5717.	0.4	7
43	Time-optimal sliding-mode control of a mobile robot in a dynamic environment. IET Control Theory and Applications, 2011, 5, 1916-1924.	1.2	39
44	Stability and invariance analysis of uncertain PWA systems based on linear programming. , 2011, , .		2
45	A Nonlinear Model Predictive Control Scheme with Multirate Integral Sliding Mode *. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 232-237.	0.4	2
46	A smart embedded control unit for electro-hydraulic aircraft actuators. , 2010, , .		2
47	Optimal disturbance rejection via integral sliding mode control for uncertain systems in regular form. , 2010, , .		10
48	Second order sliding mode control of a perturbed double integrator with state constraints. , 2010, , .		24
49	A sub-optimal second order sliding mode controller for current-fed induction motors. , 2009, , .		5
50	A dynamic obstacle avoidance strategy for a mobile robot based on sliding mode control. , 2009, , .		12
51	Automotive Battery Prognostics Using Dual Extended Kalman Filter. , 2009, , .		14
52	A Sub-Optimal Second Order Sliding Mode Controller for Systems With Saturating Actuators. IEEE Transactions on Automatic Control, 2009, 54, 1082-1087.	3.6	75
53	A sub-optimal second order sliding mode controller for systems with saturating actuators. , 2008, , .		8
54	Second-order sliding-mode control of a mobile robot based on a harmonic potential field. IET Control Theory and Applications, 2008, 2, 807-818.	1.2	45

#	ARTICLE	IF	CITATIONS
55	Gradient tracking based second order sliding mode control of a wheeled vehicle. , 2007, , .		4