

Jaime A Moreno

List of Publications by Year in descending order

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269
papers

7,114
citations

159525

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272
docs citations

272
times ranked

3180
citing authors

#	ARTICLE	IF	CITATIONS
1	Trajectory-tracking in finite-time for robot manipulators with bounded torques via output-feedback. International Journal of Control, 2023, 96, 907-921.	1.2	1
2	Arbitrary-Order Fixed-Time Differentiators. IEEE Transactions on Automatic Control, 2022, 67, 1543-1549.	3.6	24
3	Robust finite-time stabilisation of an arbitrary-order nonholonomic system in chained form. Automatica, 2022, 135, 109956.	3.0	10
4	Multivariable Super-Twisting Algorithm for Systems With Uncertain Input Matrix and Perturbations. IEEE Transactions on Automatic Control, 2022, 67, 6716-6722.	3.6	13
5	Stability Radii-Based Interval Observers for Discrete-Time Nonlinear Systems. IEEE Access, 2022, 10, 3216-3227.	2.6	3
6	Arbitrary order differentiator with varying homogeneity degree. Automatica, 2022, 138, 110111.	3.0	7
7	Human-Robot Interaction Torque Estimation Methods for a Lower Limb Rehabilitation Robotic System with Uncertainties. Applied Sciences (Switzerland), 2022, 12, 5529.	1.3	1
8	Generalized Super-Twisting for Control Under Time- and State-Dependent Perturbations: Breaking the Algebraic Loop. IEEE Transactions on Automatic Control, 2022, , 1-8.	3.6	2
9	Strict Lyapunov functions for finite-time control of robot manipulators. International Journal of Control, 2021, 94, 3112-3122.	1.2	2
10	An integral extension technique for continuous homogeneous state-feedback control laws preserving nominal performance. International Journal of Robust and Nonlinear Control, 2021, 31, 3480-3498.	2.1	0
11	Homogeneous output-feedback control with disturbance-observer for a class of nonlinear systems. International Journal of Robust and Nonlinear Control, 2021, 31, 3686-3707.	2.1	4
12	High-order sliding-mode control design homogeneous in the bi-limit. International Journal of Robust and Nonlinear Control, 2021, 31, 3380-3416.	2.1	12
13	Reaction wheel pendulum control using fourth-order discontinuous integral algorithm. International Journal of Robust and Nonlinear Control, 2021, 31, 185-206.	2.1	7
14	Robust trajectory-tracking in finite-time for robot manipulators using nonlinear proportional-derivative control plus feedforward compensation. International Journal of Robust and Nonlinear Control, 2021, 31, 3878-3907.	2.1	7
15	On multi-valued observers for a class of single-valued systems. Automatica, 2021, 123, 109334.	3.0	3
16	Sliding Mode Control of a Distributed-Parameter Wafer Spin Clean Process. IEEE Transactions on Control Systems Technology, 2021, 29, 2271-2278.	3.2	2
17	Saturated Lipschitz Continuous Sliding Mode Controller for Perturbed Systems With Uncertain Control Coefficient. IEEE Transactions on Automatic Control, 2021, 66, 3885-3891.	3.6	13
18	Robust global stabilization of a class of underactuated mechanical systems of two degrees of freedom. International Journal of Robust and Nonlinear Control, 2021, 31, 3908-3928.	2.1	12

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19	Lyapunov-based finite-time control of robot manipulators. <i>International Journal of Robust and Nonlinear Control</i> , 2021, 31, 3090-3114.	2.1	12
20	Multiple-input multiple-output homogeneous integral control design using the implicit Lyapunov function approach. <i>International Journal of Robust and Nonlinear Control</i> , 2021, 31, 3417-3438.	2.1	5
21	Numerical design of Lyapunov functions for a class of homogeneous discontinuous systems. <i>International Journal of Robust and Nonlinear Control</i> , 2021, 31, 3708-3729.	2.1	1
22	A simple criterion to design optimal non-pharmaceutical interventions for mitigating epidemic outbreaks. <i>Journal of the Royal Society Interface</i> , 2021, 18, 20200803.	1.5	26
23	An adaptive speed observer for a class of nonlinear mechanical systems: Theory and experiments. <i>Automatica</i> , 2021, 130, 109710.	3.0	4
24	Joint swing-up and stabilization of the Reaction Wheel Pendulum using Discontinuous Integral algorithm. <i>Nonlinear Analysis: Hybrid Systems</i> , 2021, 41, 101042.	2.1	3
25	A Lyapunov based Saturated Super-Twisting Algorithm. <i>Studies in Systems, Decision and Control</i> , 2021, , 47-68.	0.8	2
26	Robust Stabilization of a Class of Underactuated Mechanical Systems of 2 DOF via Continuous Higher-Order Sliding-Modes. <i>Studies in Systems, Decision and Control</i> , 2021, , 351-391.	0.8	0
27	Levant's differentiator by interconnection of low order blocks. <i>IFAC-PapersOnLine</i> , 2021, 54, 319-324.	0.5	2
28	Nonlinear Observer Design for a 1D Heat Conduction Process. , 2021, , .		2
29	Continuous finite-time regulation of Euler-Lagrange systems via energy shaping. <i>International Journal of Control</i> , 2020, 93, 2931-2940.	1.2	10
30	Gramian-based uniform convergent observer for stable LTV systems with delayed measurements. <i>International Journal of Control</i> , 2020, 93, 226-237.	1.2	15
31	Dissipative interval observer design for discrete-time nonlinear systems. <i>Asian Journal of Control</i> , 2020, 22, 1422-1436.	1.9	9
32	Global Sliding Mode Observers for Some Uncertain Mechanical Systems. <i>IEEE Transactions on Automatic Control</i> , 2020, 65, 1348-1355.	3.6	14
33	Continuous Twisting Algorithm for Third-Order Systems. <i>IEEE Transactions on Automatic Control</i> , 2020, 65, 2814-2825.	3.6	27
34	Observer Design for Discrete-Time Nonlinear Systems Using the Stability Radii Theory. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2020, 67, 1959-1963.	2.2	1
35	Higher Order Sliding Mode Control Using Discontinuous Integral Action. <i>IEEE Transactions on Automatic Control</i> , 2020, 65, 4316-4323.	3.6	18
36	Homogeneous integral controllers for a magnetic suspension system. <i>Control Engineering Practice</i> , 2020, 97, 104325.	3.2	7

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37	Asymptotic tracking and disturbance rejection of time-varying signals with a discontinuous PID controller. <i>Journal of Process Control</i> , 2020, 87, 79-90.	1.7	10
38	Discontinuous Integral Control for Systems with Arbitrary Relative Degree. <i>Studies in Systems, Decision and Control</i> , 2020, , 29-69.	0.8	4
39	Discontinuous integral action for arbitrary relative degree in sliding-mode control. <i>Automatica</i> , 2020, 118, 109018.	3.0	33
40	Control of Fully Actuated Mechanical Systems via Super-twisting Based Lyapunov Redesign. <i>IFAC-PapersOnLine</i> , 2020, 53, 5117-5121.	0.5	3
41	Performance Preserving Integral Extension of Linear and Homogeneous State-Feedback Controllers. <i>IFAC-PapersOnLine</i> , 2020, 53, 5129-5134.	0.5	2
42	Parameter preference for the continuous super-twisting-like algorithm based on H^∞ norm analysis. <i>IFAC-PapersOnLine</i> , 2020, 53, 5141-5146.	0.5	1
43	Analysis of Singular Perturbations for a Class of Interconnected Homogeneous Systems: Input-to-State Stability Approach. <i>IFAC-PapersOnLine</i> , 2020, 53, 6416-6421.	0.5	2
44	Robust Global Stabilization of the Third Order Reaction Wheel Pendulum System. <i>IFAC-PapersOnLine</i> , 2020, 53, 5111-5116.	0.5	0
45	Design of Lyapunov functions for a class of homogeneous systems: Generalized forms approach. <i>International Journal of Robust and Nonlinear Control</i> , 2019, 29, 661-681.	2.1	18
46	Finite-Time Estimation of Time-Varying Frequency Signals in Low-Inertia Power Systems. , 2019, , .		7
47	Finite-time consensus of Euler-Lagrange agents without velocity measurements via energy shaping. <i>International Journal of Robust and Nonlinear Control</i> , 2019, 29, 6006-6030.	2.1	9
48	Robust control and observation of nonlinear processes using discontinuities. <i>IFAC-PapersOnLine</i> , 2019, 52, 739-753.	0.5	0
49	A homogeneity property of discrete-time systems: Stability and convergence rates. <i>International Journal of Robust and Nonlinear Control</i> , 2019, 29, 2406-2421.	2.1	12
50	On the Boundary Conditions in a Non-Linear Dissipative Observer for Tubular Reactors. <i>Processes</i> , 2019, 7, 8.	1.3	3
51	Semi-implicit Discretization of the Uniform Robust Exact Differentiator. , 2019, , .		9
52	Integral Control Design using the Implicit Lyapunov Function Approach. , 2019, , .		7
53	Homogeneous Discrete-Time Approximation. <i>IFAC-PapersOnLine</i> , 2019, 52, 19-24.	0.5	4
54	Generalised multivariable supertwisting algorithm. <i>International Journal of Robust and Nonlinear Control</i> , 2019, 29, 634-660.	2.1	19

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55	Design and Control Strategy of a Low-Cost Parallel Robot for Precise Solar Tracking. <i>Mechanisms and Machine Science</i> , 2019, , 342-350.	0.3	2
56	Levant's Arbitrary-Order Exact Differentiator: A Lyapunov Approach. <i>IEEE Transactions on Automatic Control</i> , 2019, 64, 3034-3039.	3.6	81
57	On the Finite-Time Regulation of Euler-Lagrange Systems Without Velocity Measurements. <i>IEEE Transactions on Automatic Control</i> , 2018, 63, 4309-4316.	3.6	10
58	On the practical estimation of unknown inputs for polytopic LTI systems. <i>IET Control Theory and Applications</i> , 2018, 12, 466-476.	1.2	4
59	Super-Twisting Algorithm in presence of time and state dependent perturbations. <i>International Journal of Control</i> , 2018, 91, 2535-2548.	1.2	63
60	Higher order sliding-mode observers with scaled dissipative stabilisers. <i>International Journal of Control</i> , 2018, 91, 2511-2523.	1.2	7
61	Exact differentiator with varying gains. <i>International Journal of Control</i> , 2018, 91, 1983-1993.	1.2	25
62	An SOS method for the design of continuous and discontinuous differentiators. <i>International Journal of Control</i> , 2018, 91, 2597-2614.	1.2	21
63	Discontinuous Integral Control for Systems with Relative Degree Two. , 2018, , 187-218.		24
64	Lyapunov-Based Design of Homogeneous High-Order Sliding Modes. <i>Studies in Systems, Decision and Control</i> , 2018, , 3-38.	0.8	4
65	Spherical gyroscopic moment stabilizer for attitude control of microsatellites. <i>Acta Astronautica</i> , 2018, 143, 9-15.	1.7	11
66	Dissipative approach to sliding mode observers design for uncertain mechanical systems. <i>Automatica</i> , 2018, 87, 330-336.	3.0	32
67	A Gramian-based observer with uniform convergence rate for delayed measurements. , 2018, , .		1
68	Strict Lyapunov functions for homogeneous finite-time second-order systems. , 2018, , .		16
69	Output Feedback Discontinuous Integral Controller for SISO Nonlinear Systems. , 2018, , .		4
70	Leaderless and Leader-Follower Consensus of Euler-Lagrange Agents: Finite-Time Convergence Without Velocity Measurements. , 2018, , .		1
71	Finite-Time Regulation of Robots: a Strict Lyapunov Function Approach. <i>IFAC-PapersOnLine</i> , 2018, 51, 279-284.	0.5	6
72	LMI-Based Sliding Mode Control of an Underactuated Control Moment Gyroscope System. <i>IFAC-PapersOnLine</i> , 2018, 51, 291-296.	0.5	3

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73	Anti-Chattering Strategy using Twisting Controller. IFAC-PapersOnLine, 2018, 51, 384-389.	0.5	3
74	Homogeneous Generalisation of the Lurâ€™e Problem and the Circle Criterion. IFAC-PapersOnLine, 2018, 51, 514-519.	0.5	1
75	Full and Partial State Discontinuous Integral Control. IFAC-PapersOnLine, 2018, 51, 573-578.	0.5	8
76	An adaptive speed observersâ€™ design for a class of nonlinear mechanical systems. IFAC-PapersOnLine, 2018, 51, 603-608.	0.5	0
77	Delayed Kalman-Bucy observer for a class of LTV systems with delayed measurements. IFAC-PapersOnLine, 2018, 51, 12-17.	0.5	1
78	Fixed-Time Homogeneous Integral Controller. IFAC-PapersOnLine, 2018, 51, 377-382.	0.5	4
79	Indirect Adaptive Control for Higher Order Sliding Mode. IFAC-PapersOnLine, 2018, 51, 591-596.	0.5	6
80	Design Concept and Development of a New Spherical Attitude Stabilizer for Small Satellites. IEEE Access, 2018, 6, 57353-57365.	2.6	6
81	High-Order Sliding Mode Observer for Outflow Reconstruction in a Branched Pipeline. , 2018, , .		3
82	Fast Extremum Seeking for Bioreactors using a Variable Structure Control Approach. , 2018, , .		4
83	Stabilization of the Reaction Wheel Pendulum via a Third Order Discontinuous Integral Sliding Mode Algorithm. , 2018, , .		11
84	Kinematics Analysis of a New 3DOF Parallel Manipulator as Walking Rehabilitation Device. , 2018, , .		4
85	Adaptive Continuous Twisting Algorithm of Third Order. , 2018, , .		5
86	Homogeneous Lyapunov Functions: From Converse Design to Numerical Implementation. SIAM Journal on Control and Optimization, 2018, 56, 3454-3477.	1.1	12
87	Frequency Domain Analysis of the Extended Super-Twisting Algorithm. , 2018, , .		0
88	Interval Observer Design for Nonlinear Systems: Stability Radii Approach. IEEE Access, 2018, 6, 52801-52813.	2.6	9
89	Lyapunovâ€based design for a class of variableâ€gain 2ndâ€sliding controllers with the desired convergence rate. International Journal of Robust and Nonlinear Control, 2018, 28, 5279-5296.	2.1	15
90	Dissipative observers for coupled diffusionâ€convectionâ€reaction systems. Automatica, 2018, 94, 307-314.	3.0	16

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91	Output feedback Continuous Twisting Algorithm. Automatica, 2018, 96, 298-305.	3.0	24
92	Dissipative observers for discrete-time nonlinear systems. Journal of the Franklin Institute, 2018, 355, 5759-5770.	1.9	8
93	Time-Varying Parameter Identification Algorithms: Finite and Fixed-Time Convergence. IEEE Transactions on Automatic Control, 2017, 62, 3671-3678.	3.6	79
94	Fundamental limitations of network reconstruction from temporal data. Journal of the Royal Society Interface, 2017, 14, 20160966.	1.5	51
95	Design of Continuous Twisting Algorithm. Automatica, 2017, 80, 119-126.	3.0	105
96	Homogeneous High Order Sliding Mode design: A Lyapunov approach. Automatica, 2017, 80, 232-238.	3.0	114
97	A Global Bivalued-Observer for the Sensorless Induction Motor * *Financial support from PAPIIT-UNAM, projects IN113617 and IN116516; CONACyT, project 241171; Fondo de Colaboraci3n II-FI UNAM, Project IISGBAS-100-2015. IFAC-PapersOnLine, 2017, 50, 15428-15433.	0.5	2
98	Levant3m's Arbitrary Order Differentiator with Varying Gain. IFAC-PapersOnLine, 2017, 50, 1705-1710.	0.5	8
99	State-estimation for a class of tubular reactors using a pointwise innovation scheme. Journal of Process Control, 2017, 60, 104-114.	1.7	15
100	Twisting sliding mode control with adaptation: Lyapunov design, methodology and application. Automatica, 2017, 75, 229-235.	3.0	121
101	A homogeneity property of a class of discrete-time systems. , 2017, , .		5
102	Finite-time regulation of fully-actuated euler-lagrange systems without velocity measurements. , 2017, , .		1
103	Fixed-time convergent Adaptive Observer for LTI Systems * *The authors thank the financial support from PAPIIT-UNAM (Programa de Apoyo a Proyectos de Investigaci3n e Innovaci3n Tecnol3gica), project IN113614; Fondo de Colaboraci3n II-FI UNAM, Project IISGBAS-100-2015; CONACyT (Consejo Tj ETQq1 10.784314rgBT /O 50-11620-11644.		
104	Finite-Time Regulation of Robot Manipulators: an Energy Shaping Approach * *The authors thank the financial support from PAPIIT-UNAM, project IN113614; Fondo de Colaboracin II-FI UNAM, Project IISGBAS-100-2015; CONACyT, project 241171; and the financial support of the Mexican CONACyT through the postdoctoral scholarship CVU 267513.. IFAC-PapersOnLine, 2017, 50, 9583-9588.	0.5	2
105	Lyapunov-stability for the sliding-mode control of a turbocharger subject to state constraints. , 2017, , .		8
106	Multivalued finite-time observers for a class of nonlinear systems. , 2017, , .		2
107	On numerical construction of homogeneous Lyapunov functions. , 2017, , .		1
108	An idea for Lyapunov function design for arbitrary order continuous twisting algorithms. , 2017, , .		13

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109	Study of the Convergence in State Estimators for LTI Systems with Event Detection. Journal of Control Science and Engineering, 2016, 2016, 1-6.	0.8	0
110	Construction of a Smooth Lyapunov Function for the Robust and Exact Second-Order Differentiator. Mathematical Problems in Engineering, 2016, 2016, 1-12.	0.6	11
111	Fixed-time parameter estimation in polynomial systems through modulating functions. , 2016, , .		12
112	Saturated Super-Twisting Algorithm based on Perturbation Estimator. , 2016, , .		20
113	Finite-Time Identification Algorithm based on Time-Varying Homogeneity and Lyapunov Approach**This work was supported in part by the Government of Russian Federation (Grant 074-U01) and the Ministry of Education and Science of Russian Federation (Project 14.Z50.31.0031).. IFAC-PapersOnLine, 2016, 49, 434-439.	0.5	1
114	Global sliding-mode observers for a class of mechanical systems with disturbances**The authors are grateful for the financial support of CONACyT (Consejo Nacional de Ciencia y Tecnología) grants: 261737, 241171 CVU 419644; PAPIIT-UNAM (Programa de Apoyo a Proyectos de Investigación e Innovación Tecnológica) grants: 261737, 241171 CVU 419644. IFAC-PapersOnLine, 2016, 49, 440-445.	0.5	0
115	Lyapunov Functions for Continuous and Discontinuous Differentiators. IFAC-PapersOnLine, 2016, 49, 660-665.	0.5	51
116	Fault detection using adaptive thresholds for nonlinear systems: A Preserving order observer approach. IFAC-PapersOnLine, 2016, 49, 885-890.	0.5	8
117	Fixed-time adaptive observer for linear time-invariant systems. , 2016, , .		4
118	Unmeasured Concentrations and Reaction Rates Estimation in CSTRs. IFAC-PapersOnLine, 2016, 49, 224-229.	0.5	3
119	Pointwise innovation-based state observation of exothermic tubular reactors. IFAC-PapersOnLine, 2016, 49, 955-960.	0.5	2
120	Dissipativity-based observer design for a class of coupled 1-D semi-linear parabolic PDE systems. IFAC-PapersOnLine, 2016, 49, 98-103.	0.5	13
121	Discrete sliding mode control for systems with arbitrary relative degree output. , 2016, , .		16
122	Discontinuous integral control for mechanical systems. , 2016, , .		29
123	Finite-time state estimation for LTI systems with a First-Order Sliding Mode. , 2016, , .		1
124	Saturated Super-Twisting Algorithm: Lyapunov based approach. , 2016, , .		27
125	Super-Twisting algorithm for systems with uncertain control gain: A Lyapunov based approach. , 2016, , .		2
126	Second-order sliding mode output feedback controller with adaptation. International Journal of Adaptive Control and Signal Processing, 2016, 30, 1523-1543.	2.3	57

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127	Continuous terminal sliding-mode controller. Automatica, 2016, 69, 308-314.	3.0	164
128	Implementation of Super-Twisting Control: Super-Twisting and Higher Order Sliding-Mode Observer-Based Approaches. IEEE Transactions on Industrial Electronics, 2016, 63, 3677-3685.	5.2	394
129	Homogeneity Based Uniform Stability Analysis for Time-Varying Systems. IEEE Transactions on Automatic Control, 2016, 61, 725-734.	3.6	19
130	Discontinuous gradient algorithm for finite-time estimation of time-varying parameters. International Journal of Control, 2016, 89, 1838-1848.	1.2	12
131	Adaptive continuous twisting algorithm. International Journal of Control, 2016, 89, 1798-1806.	1.2	76
132	State and Input Estimation of an Anaerobic Digestion Reactor using a Continuous-discrete Unknown Input Observer—The authors gratefully acknowledge the support of FNRS and CONACYT in the framework of a bilateral research agreement. This paper presents research results of the Belgian Network DYSCO (Dynamical Systems, Control, and Optimization), funded by the Interuniversity Attraction Poles Programme, initiated by the Belgian State, Science Policy Office. The scientific responsibility rests with its authors. IFAC-PapersOnLine, 2015, 48, 129-134.	0.5	11
133	On-line maximization of biogas production in an anaerobic reactor using a pseudo-super-twisting controller—Project financed by PAPIIT-UNAM IN112114 and CONACYT 245954.. IFAC-PapersOnLine, 2015, 48, 14-19.	0.5	5
134	Smooth Lyapunov function and gain design for a Second Order Differentiator. , 2015, , .		21
135	Non-linear gradient algorithm for parameter estimation. , 2015, , .		4
136	A simple observer scheme for a class of 1-D semi-linear parabolic distributed parameter systems. , 2015, , .		15
137	Qualitative differences of two classes of multivariable super-twisting algorithms. , 2015, , .		5
138	Dissipative approach to design sliding-mode observers for uncertain unstable mechanical systems. , 2015, , .		1
139	Continuous Twisting Algorithm. , 2015, , .		20
140	On the estimation problem of a class of continuous bioreactors with unknown input. Journal of Process Control, 2015, 30, 34-49.	1.7	13
141	Super-twisting observer for second order systems with time-varying coefficient. IET Control Theory and Applications, 2015, 9, 553-562.	1.2	38
142	Super-twisting estimation of a virtual output for extremum-seeking output feedback control of bioreactors. Journal of Process Control, 2015, 35, 41-49.	1.7	16
143	Continuous Nested Algorithms : The Fifth Generation of Sliding Mode Controllers. Studies in Systems, Decision and Control, 2015, , 5-35.	0.8	62
144	Application of super-twisting observers to the estimation of state and unknown inputs in an anaerobic digestion system. Water Science and Technology, 2014, 69, 414-421.	1.2	16

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145	Uniform stability analysis for time-varying systems applying homogeneity. , 2014, , .		0
146	A constructive Lyapunov function design method for a class of homogeneous systems. , 2014, , .		36
147	Construction of Lyapunov functions for homogeneous second-order systems. , 2014, , .		1
148	A dynamical interpretation of strong observability and detectability concepts for nonlinear systems with unknown inputs: application to biochemical processes. Bioprocess and Biosystems Engineering, 2014, 37, 37-49.	1.7	35
149	Special issue on nonlinear modeling, estimation and control of biological systems. Bioprocess and Biosystems Engineering, 2014, 37, 1-3.	1.7	14
150	On functional observers for linear systems with unknown inputs and HOSM differentiators. Journal of the Franklin Institute, 2014, 351, 1982-1994.	1.9	12
151	A new class of fast finite-time discontinuous controllers. , 2014, , .		10
152	Lyapunov functions for Twisting and Terminal controllers. , 2014, , .		7
153	Higher order super-twisting algorithm. , 2014, , .		60
154	Application of Super-twisting-like observers for bioprocesses. , 2014, , .		4
155	How to implement Super-Twisting Controller based on sliding mode observer?. , 2014, , .		31
156	On strict Lyapunov functions for some non-homogeneous super-twisting algorithms. Journal of the Franklin Institute, 2014, 351, 1902-1919.	1.9	59
157	A weighted variable gain super-twisting observer for the estimation of kinetic rates in biological systems. Journal of Process Control, 2014, 24, 957-965.	1.7	29
158	Preserving order observers for nonlinear systems. International Journal of Robust and Nonlinear Control, 2014, 24, 2153-2178.	2.1	14
159	Matrix inequality-based observer design for a class of distributed transport-reaction systems. International Journal of Robust and Nonlinear Control, 2014, 24, 2213-2230.	2.1	27
160	Adaptive output feedback second order sliding mode control with unknown bound of perturbation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 10832-10837.	0.4	5
161	Improved Convergence Rate of Discontinuous Finite-Time Controllers. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 8636-8641.	0.4	9
162	Observer Design for a class of complex networks with unknown topology. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 2812-2817.	0.4	4

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163	Robust exact uniformly convergent arbitrary order differentiator. Automatica, 2013, 49, 2489-2495.	3.0	214
164	On Discontinuous Observers for Second Order Systems: Properties, Analysis and Design. Lecture Notes in Control and Information Sciences, 2013, , 243-265.	0.6	24
165	Output-feedback finite-time stabilization of disturbed feedback linearizable nonlinear systems. Automatica, 2013, 49, 2767-2773.	3.0	35
166	Identification and observation in the anode line of PEM fuel cell stacks. , 2013, , .		4
167	Fast second-order Sliding Mode Control design based on Lyapunov function. , 2013, , .		8
168	Finite time converging input observers for nonlinear second-order systems. , 2013, , .		6
169	On a sign controller for the triple integrator. , 2013, , .		6
170	A Bivalued Observer for a Class of Uncertain Reactors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 261-266.	0.4	3
171	Observability analysis and software sensor design for an animal cell culture in perfusion mode. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 255-260.	0.4	3
172	Virtual output estimation in a bioreactor using a generalized super-twisting algorithm. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 303-308.	0.4	0
173	Real-time optimization of a fed-batch bioreactor with substrate inhibition using extremum-seeking. , 2012, , .		1
174	A Lyapunov approach to output feedback control using second-order sliding modes. IMA Journal of Mathematical Control and Information, 2012, 29, 291-308.	1.1	41
175	Optimal gain for the Super-Twisting differentiator in the presence of measurement noise. , 2012, , .		5
176	The differentiation error of noisy signals using the Generalized Super-Twisting differentiator. , 2012, , .		18
177	Construction of Lyapunov Functions for a Class of Higher Order Sliding Modes algorithms. , 2012, , .		14
178	Design of a prescribed convergence time uniform Robust Exact Observer in the presence of measurement noise. , 2012, , .		33
179	Output feedback adaptive twisting control: A Lyapunov design. , 2012, , .		15
180	Uniform sliding mode controllers and uniform sliding surfaces. IMA Journal of Mathematical Control and Information, 2012, 29, 491-505.	1.1	33

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181	A Biogas-Based Switching Control Policy for Anaerobic Digestion Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 603-608.	0.4	8
182	A simple output-feedback controller for fed-batch cultures of microbial strains with overflow metabolism. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 934-939.	0.4	2
183	Observability/detectability analysis for nonlinear systems with unknown inputs - application to biochemical processes. , 2012, , .		5
184	Some remarks about the tradeoffs between exactness and robustness in control. , 2012, , .		0
185	Observer design for a class of hyperbolic PDE equation based on a Distributed Super Twisting Algorithm. , 2012, , .		6
186	An equivalent control based sliding mode observer using high order uniform robust sliding operators. , 2012, , .		7
187	Lyapunov function for Levant's Second Order Differentiator. , 2012, , .		43
188	Variable Gain Super-Twisting Sliding Mode Control. IEEE Transactions on Automatic Control, 2012, 57, 2100-2105.	3.6	313
189	A direct model reference adaptive control for SISO linear time invariant systems with Super-Twisting-like terms. , 2012, , .		1
190	Asymptotic stabilization in fixed time via sliding mode control. , 2012, , .		4
191	Strict Lyapunov Functions for the Super-Twisting Algorithm. IEEE Transactions on Automatic Control, 2012, 57, 1035-1040.	3.6	972
192	Feedforward output-feedback control for continuous exothermic reactors with isotonic kinetics. Journal of Process Control, 2012, 22, 303-320.	1.7	14
193	Uniform Robust Exact Differentiator. IEEE Transactions on Automatic Control, 2011, 56, 2727-2733.	3.6	410
194	A new finite-time convergent and robust direct model reference adaptive control for SISO linear time invariant systems. , 2011, , .		8
195	Time-Optimal Output Feedback Controller for Toxic Wastewater Treatment in a Fed-batch Bioreactor. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 3812-3817.	0.4	1
196	Adaptive Gains Super-Twisting Algorithm for Systems with Growing Perturbations. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 3039-3044.	0.4	11
197	On Functional Observers for Linear Systems with Unknown Inputs and HOSM Differentiators. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 1922-1927.	0.4	1
198	A New Recursive Finite-Time Convergent Parameter Estimation Algorithm. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 3439-3444.	0.4	10

#	ARTICLE	IF	CITATIONS
199	Dissipative design of unknown input observers for systems with sector nonlinearities. International Journal of Robust and Nonlinear Control, 2011, 21, 1623-1644.	2.1	35
200	Second-order uniform exact sliding mode control with uniform sliding surface. , 2011, , .		6
201	Adaptive twist sliding mode control: A Lyapunov design. , 2011, , .		28
202	An exact and uniformly convergent arbitrary order differentiator. , 2011, , .		10
203	Lyapunov Approach for Analysis and Design of Second Order Sliding Mode Algorithms. Lecture Notes in Control and Information Sciences, 2011, , 113-149.	0.6	93
204	Super-Twisting Observer-Based Output Feedback Control of a Class of Continuous Exothermic Chemical Reactors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 727-732.	0.4	15
205	Dissipative design of adaptive observers for systems with multivalued nonlinearities. , 2010, , .		4
206	Design of mixed Luenberger and sliding continuous mode observer using sampled output information. , 2010, , .		3
207	Control structure and limitations of biochemical networks. , 2010, , .		1
208	Robust dissipative observer design for nonlinear systems. , 2010, , .		1
209	Super-twisting adaptive sliding mode control: A Lyapunov design. , 2010, , .		160
210	Output-feedback IDA stabilisation of an SMIB system using a TCSC. International Journal of Control, 2010, 83, 2471-2482.	1.2	4
211	Uniform Second-Order Sliding Mode Observer for mechanical systems. , 2010, , .		65
212	Variable gains super-twisting algorithm: A Lyapunov based design. , 2010, , .		49
213	Observer design for a class of parabolic PDE via sliding modes and backstepping. , 2010, , .		15
214	Output feedback design for exact state stability of flat nonlinear systems. , 2010, , .		6
215	Sampled output based continuous second order sliding mode observer. , 2010, , .		7
216	Uniform Robust Exact Differentiator. , 2010, , .		11

#	ARTICLE	IF	CITATIONS
217	Lyapunov analysis of non homogeneous Super-Twisting algorithms. , 2010, , .		8
218	Finite-time convergence analysis for “Twisting” controller via a strict Lyapunov function. , 2010, , .		34
219	Observation of Linear Time-Invariant systems with Lebesgue sampling. , 2010, , .		2
220	Control Vectorial de un Motor de InducciÃ³n con Carga Desconocida Basado en un Nuevo Observador No Lineal. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2010, 7, 74-82.	0.6	1
221	Output-feedback IDA control design via structural properties: Application to Thyristor Controlled Series Capacitors. , 2009, , .		1
222	Optimal Lyapunov function selection for reaching time estimation of Super Twisting algorithm. , 2009, , .		64
223	Cooperative observers for nonlinear systems. , 2009, , .		9
224	On the globally defined sensorless control of induction motors. International Journal of Robust and Nonlinear Control, 2009, 19, 117-134.	2.1	2
225	Acclimatization model of an aerobic bioreactor for the treatment of toxic wastewater. Simulation Modelling Practice and Theory, 2009, 17, 680-691.	2.2	3
226	A linear framework for the robust stability analysis of a Generalized Super-Twisting Algorithm. , 2009, , .		126
227	A passive speed observer for induction motor. , 2009, , .		0
228	Modeling for the optimal biodegradation of toxic wastewater in a discontinuous reactor. Bioprocess and Biosystems Engineering, 2008, 31, 307-313.	1.7	7
229	A PDE model of a waterwalls steam generation process. ISA Transactions, 2008, 47, 374-385.	3.1	0
230	Dissipativity-based observer and feedback control design for a class of chemical reactors. Journal of Process Control, 2008, 18, 896-905.	1.7	19
231	A Lyapunov approach to second-order sliding mode controllers and observers. , 2008, , .		618
232	Spectral dissipativity observer for a class of tubular reactors. , 2008, , .		4
233	Optimal control of biological SBRs for the treatment of dairy and toxic wastewaters. Mathematical and Computer Modelling of Dynamical Systems, 2008, 14, 39-52.	1.4	3
234	Proportional-Integral Observer design for nonlinear systems. , 2008, , .		8

#	ARTICLE	IF	CITATIONS
235	Global observability and detectability analysis of uncertain reaction systems and observer design. International Journal of Control, 2008, 81, 1062-1070.	1.2	43
236	Dissipativity-based Globally Convergent Observer Design for a Class of Tubular Reactors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 4554-4559.	0.4	3
237	Observer design for bioprocesses using a dissipative approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 15559-15564.	0.4	9
238	Sensorless PBC of induction motors: a separation principle from ISS properties. , 2007, , .		10
239	ACCLIMATION MODEL OF AN AEROBIC BIOREACTOR FOR THE TREATMENT OF TOXIC WASTEWATER. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 67-72.	0.4	1
240	INTERLACED ESTIMATOR-CONTROL DESIGN FOR CONTINUOUS EXOTHERMIC REACTORS WITH NON-MONOTONIC KINETICS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 41-46.	0.4	3
241	DISSIPATIVITY-BASED OBSERVER AND FEEDBACK CONTROL DESIGN FOR A CLASS OF CHEMICAL REACTORS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 71-76.	0.4	1
242	DYNAMICAL ANALYSIS OF GLOBAL OBSERVABILITY PROPERTIES FOR A CLASS OF BIOLOGICAL REACTORS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 213-218.	0.4	9
243	Evaluation of an optimal fill strategy to biodegrade inhibitory wastewater using an industrial prototype discontinuous reactor. Water Science and Technology, 2007, 55, 47-54.	1.2	1
244	CONTROL OF CONTINUOUS REACTORS WITH NON-MONOTONIC REACTION RATE. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 65-70.	0.4	2
245	Optimal biodegradation of phenol and municipal wastewater using a controlled sequencing batch reactor. Water Science and Technology, 2006, 54, 273-280.	1.2	18
246	Biodegradation of high 4-chlorophenol concentrations in a discontinuous reactor fed with an optimally controlled influent flow rate. Water Science and Technology, 2006, 53, 261-268.	1.2	3
247	Practical optimal control of fed-batch bioreactors for the waste water treatment. International Journal of Robust and Nonlinear Control, 2006, 16, 173-190.	2.1	21
248	Event-driven time-optimal control for a class of discontinuous bioreactors. Biotechnology and Bioengineering, 2006, 94, 803-814.	1.7	17
249	Optimal degradation of inhibitory wastewaters in a fed-batch bioreactor. Journal of Chemical Technology and Biotechnology, 2006, 81, 713-720.	1.6	11
250	A Separation Property of Dissipative Observers for Nonlinear Systems. , 2006, , .		11
251	CONTROL STRATEGIES FOR TREATING TOXIC WASTEWATER USING BIOREACTORS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 177-182.	0.4	1
252	GLOBAL OBSERVABILITY AND DETECTABILITY ANALYSIS OF UNCERTAIN REACTION SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 37-42.	0.4	6

#	ARTICLE	IF	CITATIONS
253	BIODEGRADATION OF TOXIC WASTEWATERS IN AN OPTIMALLY CONTROLLED DISCONTINUOUS REACTOR. Proceedings of the Water Environment Federation, 2005, 2005, 8019-8030.	0.0	0
254	Simultaneous observation of linear systems: a state-space interpretation. IEEE Transactions on Automatic Control, 2005, 50, 1021-1025.	3.6	12
255	Approximate high-gain observers for non-Lipschitz observability forms. International Journal of Control, 2005, 78, 247-253.	1.2	8
256	Evaluation of two control strategies for a sequencing batch reactor degrading high concentration peaks of 4-chlorophenol. Water Research, 2005, 39, 1015-1024.	5.3	62
257	Global observability analysis of sensorless induction motors. Automatica, 2004, 40, 1079-1085.	3.0	106
258	Observer Design for Nonlinear Systems: A Dissipative Approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 681-686.	0.4	19
259	Practical Optimal Control for Fed-Batch Bioreactors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 1437-1442.	0.4	1
260	Event Software Sensor and Adaptive Extremum Seeking Alternatives for Optimizing a Class of Fed-Batch Bioreactors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 1007-1012.	0.4	4
261	Event-Driven Control for Treating Toxicants in Aerobic Sequencing Batch Bioreactors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 457-462.	0.4	5
262	Oxidation-Reduction Potential as a Control Variable for the Anaerobic Stage during Anaerobic-Aerobic p-Nitrophenol Degradation. Biotechnology Progress, 2003, 19, 1822-1827.	1.3	5
263	GLOBAL OBSERVABILITY ANALYSIS OF INDUCTION MOTORS UNDER SENSORLESS CONDITIONS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 351-356.	0.4	3
264	Optimal time control of bioreactors for the wastewater treatment. Optimal Control Applications and Methods, 1999, 20, 145-164.	1.3	58
265	Respirometry based optimal control of an aerobic bioreactor for the industrial waste water treatment. Water Science and Technology, 1998, 38, 219-226.	1.2	6
266	Ein neues Verfahren zum Entwurf zeitvarianter Ausgangsregler für eine spezielle Klasse linearer zeitvarianter Systeme. Automatisierungstechnik, 1994, 42, 248-253.	0.4	1
267	Stabilität einer Klasse zeitvarianter linearer Systeme/Stability of a class of time-varying linear systems. Automatisierungstechnik, 1993, 41, 97-98.	0.4	0
268	Approximate Observer Error Linearization by Dissipativity Methods. , 0, , 35-51.		20
269	Global Observability and Detectability Analysis for a Class of Nonlinear Models of Biological Processes with Bad Inputs. , 0, , .		9