

# Tiago Roux Oliveira

## List of Publications by Year in descending order

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128  
papers

1,308  
citations

394421

19  
h-index

454955

30  
g-index

130  
all docs

130  
docs citations

130  
times ranked

720  
citing authors

#	ARTICLE	IF	CITATIONS
1	Extremum Seeking for Static Maps With Delays. IEEE Transactions on Automatic Control, 2017, 62, 1911-1926.	5.7	100
2	Sliding Mode Control of Uncertain Multivariable Nonlinear Systems With Unknown Control Direction via Switching and Monitoring Function. IEEE Transactions on Automatic Control, 2010, 55, 1028-1034.	5.7	83
3	Exact predictor feedbacks for multi-input LTI systems with distinct input delays. Automatica, 2016, 71, 143-150.	5.0	62
4	Output-feedback global tracking for unknown control direction plants with application to extremum-seeking control. Automatica, 2011, 47, 2029-2038.	5.0	58
5	Global and exact HOSM differentiator with dynamic gains for output-feedback sliding mode control. Automatica, 2017, 81, 156-163.	5.0	56
6	Gradient extremum seeking for static maps with actuation dynamics governed by diffusion PDEs. Automatica, 2018, 95, 197-206.	5.0	37
7	Adaptive sliding mode control for disturbances with unknown bounds. , 2016, , .		32
8	Adaptive unit vector control of multivariable systems using monitoring functions. International Journal of Robust and Nonlinear Control, 2019, 29, 583-600.	3.7	31
9	Global tracking sliding mode control for a class of nonlinear systems via variable gain observer. International Journal of Robust and Nonlinear Control, 2011, 21, 177-196.	3.7	30
10	Peaking free output-feedback exact tracking of uncertain nonlinear systems via dwell-time and norm observers. International Journal of Robust and Nonlinear Control, 2013, 23, 483-513.	3.7	27
11	Global real-time optimization by output-feedback extremum-seeking control with sliding modes. Journal of the Franklin Institute, 2012, 349, 1397-1415.	3.4	25
12	Output-feedback sliding-mode control for systems subjected to actuator and internal dynamics failures. IET Control Theory and Applications, 2015, 9, 637-647.	2.1	25
13	Binary robust adaptive control with monitoring functions for systems under unknown high-frequency gain sign, parametric uncertainties and unmodeled dynamics. International Journal of Adaptive Control and Signal Processing, 2016, 30, 1184-1202.	4.1	25
14	Global exact tracking for uncertain MIMO linear systems by output feedback sliding mode control. Journal of the Franklin Institute, 2014, 351, 2015-2032.	3.4	24
15	Output-feedback sliding-mode control of multivariable systems with uncertain time-varying state delays and unmatched nonlinearities. IET Control Theory and Applications, 2013, 7, 1616-1623.	2.1	23
16	Overcoming Limitations of Uncalibrated Robotics Visual Servoing by means of Sliding Mode Control and Switching Monitoring Scheme. Asian Journal of Control, 2014, 16, 752-764.	3.0	23
17	Generalized Model Reference Adaptive Control by Means of Global HOSM Differentiators. IEEE Transactions on Automatic Control, 2019, 64, 2053-2060.	5.7	23
18	Multivariable Extremum Seeking for PDE Dynamic Systems. IEEE Transactions on Automatic Control, 2020, 65, 4949-4956.	5.7	23

#	ARTICLE	IF	CITATIONS
19	Global tracking for a class of uncertain nonlinear systems with unknown sign-switching control direction by output feedback. <i>International Journal of Control</i> , 2015, 88, 1895-1910.	1.9	22
20	Global adaptive HOSM differentiators via monitoring functions and hybrid state-norm observers for output feedback. <i>International Journal of Control</i> , 2018, 91, 2060-2072.	1.9	20
21	Extremum Seeking for Traffic Congestion Control With a Downstream Bottleneck. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2021, 143, .	1.6	20
22	Performance-Guaranteed Adaptive Asymptotic Tracking for Nonlinear Systems With Unknown Sign-Switching Control Direction. <i>IEEE Transactions on Automatic Control</i> , 2023, 68, 1077-1084.	5.7	19
23	Time-scaling based sliding mode control for Neuromuscular Electrical Stimulation under uncertain relative degrees. <i>Medical Engineering and Physics</i> , 2017, 44, 53-62.	1.7	18
24	Sliding mode observer for fault reconstruction of time-delay and sampled-output systems – a Time Shift Approach. <i>Automatica</i> , 2019, 106, 390-400.	5.0	18
25	Adaptive sliding mode control with guaranteed performance based on monitoring and barrier functions. <i>International Journal of Adaptive Control and Signal Processing</i> , 2022, 36, 1252-1271.	4.1	17
26	Model-Free Neuromuscular Electrical Stimulation by Stochastic Extremum Seeking. <i>IEEE Transactions on Control Systems Technology</i> , 2020, 28, 238-253.	5.2	16
27	Fault reconstruction for delay systems via least squares and time-shifted sliding mode observers. <i>Asian Journal of Control</i> , 2019, 21, 52-69.	3.0	15
28	Sliding mode control of uncertain multivariable nonlinear systems applied to uncalibrated robotics visual servoing. , 2009, , .		14
29	Unmanned Quadcopter Control Using a Motion Capture System. <i>IEEE Latin America Transactions</i> , 2016, 14, 3606-3613.	1.6	14
30	Output-feedback variable gain super-twisting algorithm for arbitrary relative degree systems. <i>International Journal of Control</i> , 2018, 91, 2043-2059.	1.9	14
31	Predictor-feedback for multi-input LTI systems with distinct delays. , 2015, , .		13
32	Deterministic and Stochastic Newton-based extremum seeking for higher derivatives of unknown maps with delays. <i>European Journal of Control</i> , 2018, 41, 72-83.	2.6	13
33	Stochastic Extremum Seeking for Dynamic Maps With Delays. , 2019, 3, 61-66.		13
34	Gradient Extremum Seeking with Delays – The first author thanks the Brazilian funding agencies CAPES, CNPq and FAPERJ for the financial support.. <i>IFAC-PapersOnLine</i> , 2015, 48, 227-232.	0.9	11
35	Global Stability and Simultaneous Compensation of State and Output Delays for Nonlinear Systems via Output-Feedback Sliding Mode Control. <i>Journal of Control, Automation and Electrical Systems</i> , 2016, 27, 608-620.	2.0	11
36	Adaptive smooth control for nonlinear uncertain systems. <i>Nonlinear Dynamics</i> , 2020, 99, 2819-2833.	5.2	10

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37	Sampled-Data Extremum Seeking With Constant Delay: A Time-Delay Approach. IEEE Transactions on Automatic Control, 2023, 68, 432-439.	5.7	10
38	Global exact differentiator based on higher-order sliding modes and dynamic gains for globally stable output-feedback control. , 2015, , .		9
39	Multiparameter extremum seeking with output delays. , 2015, , .		9
40	Adaptive Sliding Mode Control Based on the Extended Equivalent Control Concept for Disturbances with Unknown Bounds. Studies in Systems, Decision and Control, 2018, , 149-163.	1.0	9
41	Cascade observers for output-feedback control under parametric uncertainties, disturbances and arbitrary sensor delays. International Journal of Control, 2020, 93, 2245-2256.	1.9	9
42	Smooth sliding control to overcome chattering arising in classical SMC and super-twisting algorithm in the presence of unmodeled dynamics. Journal of the Franklin Institute, 2022, 359, 1235-1256.	3.4	9
43	Output-feedback sliding-mode control via cascade observers for global stabilisation of a class of nonlinear systems with output time delay. International Journal of Control, 0, , 1-11.	1.9	8
44	Newton-based Extremum Seeking under Actuator and Sensor Delays—The first author thanks the Brazilian funding agencies CAPES, CNPq and FAPERJ for the financial support.. IFAC-PapersOnLine, 2015, 48, 304-309.	0.9	8
45	Monitoring Functions Applied to Adaptive Sliding Mode Control for Disturbance Rejection. IFAC-PapersOnLine, 2017, 50, 2684-2689.	0.9	8
46	Multivariable extension of global finite-time HOSM based differentiator for output-feedback unit vector and smooth binary control. Asian Journal of Control, 2019, 21, 3-20.	3.0	8
47	Extremum seeking for unknown scalar maps in cascade with a class of parabolic partial differential equations. International Journal of Adaptive Control and Signal Processing, 2021, 35, 1162-1187.	4.1	8
48	Sliding Mode Control of Uncertain Systems with Arbitrary Relative Degree and Unknown Control Direction: Theory and Experiments. , 2006, , .		7
49	Global output-feedback extremum seeking control via monitoring functions. , 2013, , .		7
50	From adaptive control to variable structure systems “ seeking harmony. International Journal of Adaptive Control and Signal Processing, 2016, 30, 1074-1079.	4.1	7
51	Globally Stable Synchronization of Chaotic Systems Based on Norm Observers Connected in Cascade. IEEE Transactions on Circuits and Systems II: Express Briefs, 2016, 63, 883-887.	3.0	7
52	Numerical optimization based on generalized extremum seeking for fast methane production by a modified ADM1. Journal of Process Control, 2019, 84, 56-69.	3.3	7
53	Monitoring function-based active disturbance rejection control for uncertain systems with unknown control directions. Advanced Control for Applications, 2021, 3, e66.	1.7	7
54	Extremum Seeking Feedback With Wave Partial Differential Equation Compensation. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2021, 143, .	1.6	7

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55	Extremum seeking control via sliding mode and periodic switching function applied to Raman optical amplifiers. , 2012, , .		6
56	Extremum Seeking applied to Neuromuscular Electrical Stimulation. IFAC-PapersOnLine, 2016, 49, 188-193.	0.9	6
57	Sliding Mode Control for Disturbance Rejection in Systems with Measurement Delay using PDE-Backstepping Predictor. , 2018, , .		6
58	Newton-based extremum seeking of higher-order derivative maps with time-varying delays. International Journal of Adaptive Control and Signal Processing, 2021, 35, 1202-1216.	4.1	6
59	Robustness to delay mismatch in extremum seeking. European Journal of Control, 2021, 62, 75-83.	2.6	6
60	Peaking free output-feedback control of uncertain nonlinear systems. , 2008, , .		5
61	Extremum seeking control via monitoring function and time-scaling for plants of arbitrary relative degree. , 2014, , .		5
62	Output-feedback generalization of Variable Gain Super-Twisting Sliding Mode Control via global HOSM differentiators. , 2016, , .		5
63	Extremum Seeking for Maximizing Higher Derivatives of Unknown Maps in Cascade with Reaction-Advection-Diffusion PDEs. IFAC-PapersOnLine, 2019, 52, 210-215.	0.9	5
64	Nash Equilibrium Seeking with Arbitrarily Delayed Player Actions. , 2020, , .		5
65	Dwell-time and monitoring schemes for peaking avoidance in high-gain observer based output-feedback control. , 2009, , .		4
66	Blood Glucose Regulation Through Bihormonal Non-Singular Terminal Sliding Mode Controller. , 2018, , .		4
67	Scalar Newton-based Extremum Seeking for a Class of Diffusion PDEs. , 2018, , .		4
68	Global Multivariable HOSM Differentiator for Output-Feedback Unit Vector Control of Nonuniform Relative Degree Systems. , 2018, , .		4
69	Extremum Seeking-based Adaptive PID Control applied to Neuromuscular Electrical Stimulation. Anais Da Academia Brasileira De Ciencias, 2019, 91, e20180544.	0.8	4
70	Compensation of Wave PDEs in Actuator Dynamics for Extremum Seeking Feedback. IFAC-PapersOnLine, 2019, 52, 134-139.	0.9	4
71	Adaptive Control of an Unbalanced Two-Axis Gimbal for Application to Inertially Stabilized Platforms. , 2019, , .		4
72	Nash Equilibrium Seeking with Players Acting Through Heat PDE Dynamics. , 2021, , .		4

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73	Extremum seeking boundary control for PDEs – PDE cascades. <i>Systems and Control Letters</i> , 2021, 155, 105004.	2.3	4
74	Controle por realimentação de saída para sistemas incertos fortemente não-lineares. <i>Controle and Automacao</i> , 2010, 21, 69-81.	0.2	4
75	Epidemiological Control of COVID-19 Through the Theory of Variable Structure and Sliding Mode Systems. <i>Journal of Control, Automation and Electrical Systems</i> , 2022, 33, 63-77.	2.0	4
76	Extremum Seeking Under Distributed Input Delay. <i>IFAC-PapersOnLine</i> , 2020, 53, 5423-5428.	0.9	4
77	Output-feedback sliding mode control of uncertain systems with unknown control direction: A periodic switching function approach. , 2008, , .		3
78	Periodic switching function based sliding mode control applied to output-feedback extremum-seeking problem. , 2010, , .		3
79	Solving the unknown control direction problem for strongly nonlinear systems by means of periodic switching function and norm observers. , 2010, , .		3
80	Monitoring function based extremum seeking control for uncertain relative degrees with light source seeking experiments. , 2014, , .		3
81	Chaos synchronization applied to secure communication via sliding mode control and norm state observers. , 2014, , .		3
82	Global output-feedback extremum seeking for a class of nonlinear dynamic systems with arbitrary relative degree. <i>International Journal of Control</i> , 2016, 89, 1821-1837.	1.9	3
83	Renewable Energy System for Small Water Desalination Plant. , 2018, , .		3
84	Gradient Extremum Seeking with Time-Varying Delays. , 2018, , .		3
85	Multivariable binary adaptive control using higher-order sliding modes applied to inertially stabilized platforms. <i>European Journal of Control</i> , 2022, 63, 28-39.	2.6	3
86	Trajectory tracking for uncertain (non)minimum phase systems by monitoring function and time-scaling based sliding mode control. <i>IFAC Journal of Systems and Control</i> , 2020, 12, 100089.	1.7	3
87	Global tracking output-feedback sliding mode control design via norm estimators and variable high gain observer. , 2009, , .		2
88	Global Exact Tracking for Uncertain Multivariable Systems by Switching Adaptation*. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 3057-3062.	0.4	2
89	Binary robust adaptive control for global tracking of uncertain systems with unknown high-frequency-gain sign. , 2012, , .		2
90	Time-Shift Sliding Mode Predictor for Fault Reconstruction of Time-Delay Systems Using Least Squares Identification. , 2018, , .		2

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91	Multivariable extremum-seeking by periodic switching functions with application to Raman optical amplifiers. <i>Control Engineering Practice</i> , 2020, 96, 104278.	5.5	2
92	A Simplified Multivariable Gradient Extremum Seeking for Distinct Input Delays with Delay-Independent Convergence Rates. , 2020, , .		2
93	Nash Equilibrium Seeking in Quadratic Noncooperative Games Under Two Delayed Information-Sharing Schemes. <i>Journal of Optimization Theory and Applications</i> , 2020, , 1.	1.5	2
94	Gradient Extremum Seeking With Nonconstant Delays. <i>IEEE Access</i> , 2020, 8, 120429-120446.	4.2	2
95	Multivariable extremum seeking control via cyclic search and monitoring function. <i>International Journal of Adaptive Control and Signal Processing</i> , 2021, 35, 1217-1232.	4.1	2
96	Output-feedback binary adaptive control of MIMO systems using monitoring function. <i>Journal of the Franklin Institute</i> , 2021, 358, 1715-1742.	3.4	2
97	Inverse Optimality for Extremum Seeking Feedback under Delays. <i>IFAC-PapersOnLine</i> , 2020, 53, 5405-5410.	0.9	2
98	Multivariable variable-gain super-twisting control via output feedback for systems with arbitrary relative degrees. <i>International Journal of Adaptive Control and Signal Processing</i> , 2022, 36, 230-250.	4.1	2
99	Sliding Mode Output Tracking of Uncertain Nonlinear Systems with Unknown Control Direction. <i>Proceedings of the American Control Conference</i> , 2007, , .	0.0	1
100	Output-feedback sliding mode control for global tracking of uncertain nonlinear time-delay systems. , 2011, , .		1
101	Design of aircraft space indexed guidance along an airstream. , 2014, , .		1
102	Global Output Feedback Sliding Mode Control of Nonlinear Systems with Multiple Time Delays. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014, 47, 4619-4624.	0.4	1
103	Global Output-Feedback Extremum Seeking Control for Nonlinear Systems with Arbitrary Relative Degree. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014, 47, 5473-5478.	0.4	1
104	Extremum seeking subject to multiple and distinct input delays. , 2015, , .		1
105	Newton-based extremum seeking for higher derivatives of unknown Maps with Delays. , 2016, , .		1
106	Fast extremum seeking for a class of non Hammerstein-Wiener systems. , 2017, , .		1
107	HOSM Differentiator with Varying Gains for Global/Semi-Global Output Feedback * *This work was supported in part by Brazilian funding agencies CNPq, FAPERJ and CAPES.. <i>IFAC-PapersOnLine</i> , 2017, 50, 1728-1735.	0.9	1
108	Bihormonal Sliding Mode Controller Applied to Blood Glucose Regulation in Patients with Type 1 Diabetes. , 2018, , .		1

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109	Robustness of Smooth Sliding Control to Unmodeled Dynamics: Overcoming First-Order SMC and Super-Twisting Algorithm. , 2018, , .		1
110	Multivariable Generalization of BMRAC Algorithm by means of Global HOSM Differentiators with Dynamic Gains. , 2019, , .		1
111	Blood glucose regulation in patients with type 1 diabetes by means of output-feedback sliding mode control. , 2020, , 25-54.		1
112	On the Classical and Fractional Control of a Nonlinear Inverted Cart-Pendulum System: A Comparative Analysis. Mechanisms and Machine Science, 2021, , 397-417.	0.5	1
113	Unit vector control of an unbalanced three-axis gimbal for application to inertially stabilized platforms. Asian Journal of Control, 2021, 23, 2157.	3.0	1
114	Rastreamento global via controle por modos deslizantes e observador com ganho dinâmico. Controle and Automacao, 2011, 22, 308-324.	0.2	1
115	Controle por realimentação de saída e modos deslizantes via função de chaveamento periódica aplicado ao problema de busca extremal. Controle and Automacao, 2011, 22, 412-424.	0.2	1
116	Predictor Feedback for Extremum Seeking with Delays. Advances in Delays and Dynamics, 2017, , 217-234.	0.4	1
117	Guest Editorial: Special Issue on XXIII Brazilian Congress of Automatics (CBA 2020). Journal of Control, Automation and Electrical Systems, 2022, 33, 1.	2.0	1
118	A Time-delay Approach for Sampled-data and Delayed Scalar Extremum Seeking. , 2021, , .		1
119	Monitoring function for switching adaptation in control and estimation schemes with sliding modes. , 2017, , .		0
120	Cascade observers for output-feedback control of uncertain systems with arbitrary sensor delays. , 2017, , .		0
121	Neuromuscular Electrical Stimulation for Stroke Patients by Deterministic Extremum Seeking. , 2018, , .		0
122	Global Stabilization for Nonminimum Phase Systems by means of Sliding Mode Control and Multiple Observers. , 2018, , .		0
123	Extremum Seeking for Static Maps with Unknown Hessian Signs. , 2019, , .		0
124	Output Feedback Sliding Mode Control Approaches Using Observers and/or Differentiators. Lecture Notes in Control and Information Sciences, 2011, , 269-292.	1.0	0
125	Controle por modos deslizantes de sistemas multivariáveis não-lineares incertos aplicado à servovisão robótica não-calibrada. Controle and Automacao, 2011, 22, 201-213.	0.2	0
126	Global Synchronization & Secure Communication via Cascade Norm Observers & Equivalent Control. IFAC-PapersOnLine, 2021, 54, 59-64.	0.9	0



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127	Nash Equilibrium Seeking in Heterogeneous Noncooperative Games with Players Acting Through Heat PDE Dynamics and Delays. , 2021, , .		0
128	Sliding Mode Control for Stabilization and Disturbance Rejection of Uncertain Systems with Output Delays via Predictor and Super-Twisting Observer. , 2021, , .		0