

Paula Rocha

List of Publications by Year in descending order

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115
papers

943
citations

516710

16
h-index

526287

27
g-index

124
all docs

124
docs citations

124
times ranked

612
citing authors

#	ARTICLE	IF	CITATIONS
1	Improving energy efficiency via smart building energy management systems: A comparison with policy measures. <i>Energy and Buildings</i> , 2015, 88, 203-213.	6.7	124
2	Drug Delivery for Neuromuscular Blockade With Supervised Multimodel Adaptive Control. <i>IEEE Transactions on Control Systems Technology</i> , 2009, 17, 1237-1244.	5.2	59
3	Controllability of 2-D systems. <i>IEEE Transactions on Automatic Control</i> , 1991, 36, 413-423.	5.7	51
4	Multistage stochastic portfolio optimisation in deregulated electricity markets using linear decision rules. <i>European Journal of Operational Research</i> , 2012, 216, 397-408.	5.7	46
5	Hopfield neural networks for on-line parameter estimation. <i>Neural Networks</i> , 2009, 22, 450-462.	5.9	35
6	Time-relevant stability of 2D systems. <i>Automatica</i> , 2011, 47, 2373-2382.	5.0	35
7	Algebraic tools for the study of quaternionic behavioral systems. <i>Linear Algebra and Its Applications</i> , 2005, 400, 121-140.	0.9	33
8	Behavioral Controllability of Delay-Differential Systems. <i>SIAM Journal on Control and Optimization</i> , 1997, 35, 254-264.	2.1	32
9	State for 2-D systems. <i>Linear Algebra and Its Applications</i> , 1989, 122-124, 1003-1038.	0.9	28
10	Controlling the depth of anesthesia by a novel positive control strategy. <i>Computer Methods and Programs in Biomedicine</i> , 2014, 114, e87-e97.	4.7	27
11	Stability of Switched Linear Differential Systems. <i>IEEE Transactions on Automatic Control</i> , 2014, 59, 2038-2051.	5.7	23
12	A hybrid method for parameter estimation and its application to biomedical systems. <i>Computer Methods and Programs in Biomedicine</i> , 2008, 89, 112-122.	4.7	21
13	Lyapunov stability of 2D finite-dimensional behaviours. <i>International Journal of Control</i> , 2011, 84, 737-745.	1.9	20
14	A General Stability Test for Switched Positive Systems Based on a Multidimensional System Analysis. <i>IEEE Transactions on Automatic Control</i> , 2010, 55, 2660-2664.	5.7	19
15	Autonomous multidimensional systems and their implementation by behavioral control. <i>Systems and Control Letters</i> , 2010, 59, 203-208.	2.3	17
16	On the stability of switched behavioral systems. , 2011, , .		17
17	Positive state observer for the automatic control of the depth of anesthesiaâ€™Clinical results. <i>Computer Methods and Programs in Biomedicine</i> , 2019, 171, 99-108.	4.7	17
18	Feedback control of multidimensional behaviors. <i>Systems and Control Letters</i> , 2002, 45, 207-215.	2.3	16

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19	Canonical computational forms for AR 2-D systems. Multidimensional Systems and Signal Processing, 1990, 1, 251-278.	2.6	14
20	Markov properties for systems described by PDEs and first-order representations. Systems and Control Letters, 2006, 55, 538-542.	2.3	14
21	CANONICAL CONTROLLERS AND REGULAR IMPLEMENTATION OF ND BEHAVIORS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 13-18.	0.4	12
22	Representations and structural properties of periodic systems. Automatica, 2007, 43, 1921-1931.	5.0	12
23	On the determinant of quaternionic polynomial matrices and its application to system stability. Mathematical Methods in the Applied Sciences, 2008, 31, 99-122.	2.3	12
24	Closed subspaces, polynomial operators in the shift, and ARMA representations. Applied Mathematics Letters, 1991, 4, 15-19.	2.7	11
25	Lyapunov functions for time-relevant systems, with application to first-orthant stable systems. Automatica, 2012, 48, 1998-2006.	5.0	10
26	Stability of Switched Systems With Partial State Reset. IEEE Transactions on Automatic Control, 2013, 58, 1008-1012.	5.7	10
27	Stabilization of multidimensional behaviors. Multidimensional Systems and Signal Processing, 2008, 19, 273-286.	2.6	9
28	State space representation of SISO periodic behaviors. , 2011, , .		9
29	An annotation tool for dermoscopic image segmentation. , 2012, , .		9
30	Optimized PID tuning for the automatic control of neuromuscular blockade. IFAC-PapersOnLine, 2018, 51, 66-71.	0.9	9
31	Strong controllability and extendibility of discrete multidimensional behaviors. Systems and Control Letters, 2005, 54, 375-380.	2.3	8
32	Periodic state-space representations of periodic convolutional codes. Cryptography and Communications, 2019, 11, 585-595.	1.4	7
33	Stability of discrete non-unit memory linear repetitive processesâ€™ a two-dimensional systems interpretation. International Journal of Control, 1996, 63, 457-482.	1.9	6
34	Strongly autonomous interconnections and stabilization of 2D behaviors. Asian Journal of Control, 2010, 12, 127-135.	3.0	6
35	A compartmental model-based control strategy for NeuroMuscular Blockade level. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 599-604.	0.4	6
36	An improved strategy for NeuroMuscular Blockade control with parameter uncertainty. , 2011, , .		6

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37	Stability of simultaneously block triangularisable switched systems with partial state reset. International Journal of Control, 2017, 90, 428-437.	1.9	6
38	Characterizations of global reachability of 2D structured systems. Multidimensional Systems and Signal Processing, 2013, 24, 51-64.	2.6	5
39	Realization of 2D convolutional codes of rate $\frac{1}{n}$ by separable Roesser models. Designs, Codes, and Cryptography, 2014, 70, 241-250.	1.6	5
40	On the Identification of the Propofol PK/PD Model Using BIS Measurements. IFAC-PapersOnLine, 2017, 50, 868-873.	0.9	5
41	A simple positive control law for the rocuronium- induced neuromuscular blockade level. IFAC-PapersOnLine, 2018, 51, 90-94.	0.9	5
42	Pole placement based on model identification for automatic delivery of Rocuronium. , 2019, , .		5
43	Modeling and control of neuromuscular blockade level in general anesthesia. , 2020, , 167-195.		5
44	A Wide Spread of Algorithms for Automatic Segmentation of Dermoscopic Images. Lecture Notes in Computer Science, 2013, , 592-599.	1.3	5
45	Representation of noncausal 2D systems. , 1991, , 630-635.		5
46	Modelling and indentification for the action of propofol and remifentanil on the BIS level. IFAC-PapersOnLine, 2020, 53, 16197-16202.	0.9	5
47	Structure indices for multidimensional systems. IMA Journal of Mathematical Control and Information, 2000, 17, 227-256.	1.7	4
48	Output Reference Tracking for MISO Positive Systems in General Anesthesia. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 119-124.	0.4	4
49	Automatic control of the NMB level in general anaesthesia with a switching total system mass control strategy. Journal of Clinical Monitoring and Computing, 2014, 28, 501-512.	1.6	4
50	Automatic control of the depth of anesthesia - clinical results. IFAC-PapersOnLine, 2015, 48, 540-544.	0.9	4
51	<i>A simplified control scheme for the Depth of Anesthesia**This work was financially supported by: Project POCI-01-0145-FEDER-006933 - SYSTEC - Research Center for Systems and Technologies - funded by FEDER funds through COMPETE2020 -Programa Operacional Competitividade e Internacionalizao (POCI) and by national funds through FCT &ndash; Funda�o para a Ci�ncia e Tecnologia; The author Juliana Almeida acknowledge the support from FCT &ndash; Funda�o para a Ci�ncia e Tecnologia&ndash;under the doc. IFAC-PapersOnLine, 2016, 49, 230-235.</i>	0.9	4
52	Roesser model representation of 2D periodic behaviors: the (2,2)-periodic SISO case. , 2017, , .		4
53	The Generic Degree of Autonomy. SIAM Journal on Applied Algebra and Geometry, 2018, 2, 410-427.	1.4	4
54	Implementation of 2D Strongly Autonomous Behaviors by Full and Partial Interconnections. Lecture Notes in Control and Information Sciences, 2009, , 369-378.	1.0	4

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55	Multiple Model Adaptive Control of neuromuscular blockade: Design guidelines and clinical cases. , 2007, , .		4
56	State/Driving-Variable Representation of 2D Systems. Multidimensional Systems and Signal Processing, 2002, 13, 129-156.	2.6	3
57	Controllability and Extendibility of Continuous Multi-dimensional Behaviors. Multidimensional Systems and Signal Processing, 2006, 17, 97-106.	2.6	3
58	A remark on conditioned invariance in the behavioral approach. , 2013, , .		3
59	Controller design for neuromuscular blockade level tracking based on optimal control. Control Engineering Practice, 2017, 59, 151-158.	5.5	3
60	Controllability of delay-differential systems. , 1990, , 332-340.		2
61	Adirectional Markov models for 2D systems. IMA Journal of Mathematical Control and Information, 1995, 12, 37-56.	1.7	2
62	Observer design in switching control of neuromuscular blockade: clinical cases. , 2006, 2006, 5436-9.		2
63	Control of uncertain compartmental systems. , 2007, , .		2
64	Implementation of autonomous multidimensional behaviors. , 2009, , .		2
65	An automatic system for on-line change detection with application to structural health monitoring. , 2009, , .		2
66	Markovian properties for 2D behavioral systems described by PDEs: the scalar case. Multidimensional Systems and Signal Processing, 2011, 22, 45-53.	2.6	2
67	Stabilization of discrete 2D behaviors by regular partial interconnection. Mathematics of Control, Signals, and Systems, 2011, 22, 295-316.	2.3	2
68	Time-relevant 2D behaviors. , 2011, , .		2
69	A 2D Hopfield Neural Network approach to mechanical beam damage detection. Multidimensional Systems and Signal Processing, 2015, 26, 1081-1095.	2.6	2
70	Nonlinear controller for bispectral index tracking: Robustness and on-line retuning. Control Engineering Practice, 2017, 58, 343-353.	5.5	2
71	State-Space Realization of Periodic i/o Behaviors. IEEE Transactions on Automatic Control, 2021, 66, 2825-2831.	5.7	2
72	Behavioral Interpretation of Weak and Strong Controllability for Delay-Differential Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1995, 28, 453-457.	0.4	1

#	ARTICLE	IF	CITATIONS
73	State/driving-variable representations and model reduction for ∞ 2D systems. , 1997, , .		1
74	Further results on periodically time-varying behavioral systems. , 0, , .		1
75	Target mass control for uncertain compartmental systems. International Journal of Control, 2010, 83, 1387-1396.	1.9	1
76	A Polynomial-Time Solution Scheme for Quadratic Stochastic Programs. Journal of Optimization Theory and Applications, 2013, 158, 576-589.	1.5	1
77	A neural network approach to damage detection in Euler-Bernoulli beams subjected to external forces. , 2013, , .		1
78	Improvement of the BIS reference tracking performance in the presence of parameters uncertainties. , 2013, , .		1
79	Optimal time for constant drug infusion initialization in neuromuscular blockade control. , 2014, , .		1
80	A new retuning approach for DoA reference tracking improvement. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 9890-9894.	0.4	1
81	An optimal control approach to reference level tracking in general anesthesia. , 2015, , .		1
82	Conditioned invariance and detectability subspaces in the behavioral approach * *This work was supported in part by the Portuguese Foundation for Science and Technology (FCT-Funda�o para a Tj ETQq0 0 0 rgBT /Overlock 10 T Applications, within project UID/MAT/04106/2013 and also by Project POCI-01-0145-FEDER-006933 - SYSTEC - Research Center for Systems and Technologies - funded by FEDER funds through COMPETE2020 - Programa Operacional Competiti. IFAC-PapersOnLine, 2017, 50, 687-692.	0.9	1
83	Strong controlled-invariance of behavioural nD systems. International Journal of Control, 2018, 91, 2772-2779.	1.9	1
84	Towards a Geometric Theory for nD Behaviors:Conditioned Invariance and Detectability Subspaces. IFAC-PapersOnLine, 2019, 52, 77-81.	0.9	1
85	A Behavioral Approach to Estimation in the Presence of Disturbances. IEEE Transactions on Automatic Control, 2021, 66, 2795-2801.	5.7	1
86	A Simplified Control Approach for the Neuromuscular Blockade Level. Lecture Notes in Electrical Engineering, 2017, , 37-44.	0.4	1
87	Minimal Realizations of Syndrome Formers of a Special Class of 2D Codes. CIM Series in Mathematical Sciences, 2015, , 185-193.	0.4	1
88	Minimal State-Space Realizations of Convolutional Codes. Lecture Notes in Electrical Engineering, 2015, , 13-22.	0.4	1
89	A State Space Approach to Periodic Convolutional Codes. Lecture Notes in Computer Science, 2017, , 238-247.	1.3	1
90	On the state space realization of separable periodic 2D systems. , 2018, , .		1

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91	Realization of 2D (2,2)-Periodic Encoders by Means of 2D Periodic Separable Roesser Models. International Journal of Applied Mathematics and Computer Science, 2019, 29, 527-539.	1.5	1
92	An Individualized Automatically Tuned TCI Strategy for Neuromuscular Blockade Control. Cybernetics and Systems, 2022, 53, 44-57.	2.5	1
93	An alternative characterization for state/driving-variable representability of 2D behaviors. , 2001, , .		0
94	An algorithm for SDV representation of 2D behaviors. , 2007, , .		0
95	A switching control strategy for improving drug infusion. International Journal of Control, 2009, 82, 2221-2234.	1.9	0
96	Stabilization of nD behaviors. , 2009, , .		0
97	Controllability and reconstructibility of periodic state space systems - a behavioral approach *. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 152-159.	0.4	0
98	Tracking the NMB level via a switching system mass control strategy. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 473-477.	0.4	0
99	A simple PK/PD model identification procedure for controller design in anesthesia. , 2013, , .		0
100	Reconstructibility of time-invariant and periodic behavioural systems. International Journal of Control, 2013, 86, 84-94.	1.9	0
101	Robustness of a new nonlinear positive controller for BIS tracking. , 2014, , .		0
102	Sensor placement for real-time dynamic state estimation in power systems: Structural systems approach. , 2014, , .		0
103	NMB target level tracking via an optimization based control law. IFAC-PapersOnLine, 2015, 48, 413-417.	0.9	0
104	Special issue on multidimensional systems applications. Multidimensional Systems and Signal Processing, 2015, 26, 891-893.	2.6	0
105	On the State-Space Realization of 2-Periodic Image Behaviors. , 2018, , .		0
106	Improving TCI control for the automatic delivery of rocuronium. , 2020, , .		0
107	An intelligent drug delivery system for neuromuscular blockade in healthcare. , 2021, , .		0
108	A note on behavioral reachability. , 2007, , .		0

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109	Finite dimensional interconnections and stabilization of 2D behaviors. , 2009, , .		0
110	MA REPRESENTATION OF l2 2D SYSTEMS. , 1992, , 416-418.		0
111	Implementation of Behavioral Systems. Lecture Notes in Control and Information Sciences, 2015, , 151-168.	1.0	0
112	Composition codes. Advances in Mathematics of Communications, 2016, 10, 163-177.	0.7	0
113	On the Connection Between the Stability of Multidimensional Positive Systems and the Stability of Switched Positive Systems. Lecture Notes in Control and Information Sciences, 2017, , 171-178.	1.0	0
114	State-Space Estimation Using the Behavioral Approach: A Simple Particular Case. Lecture Notes in Electrical Engineering, 2021, , 210-220.	0.4	0
115	Individualized control of the depth of anesthesia based on online identification and retuning. IFAC-PapersOnLine, 2021, 54, 43-48.	0.9	0