

Jocelyn Sabatier

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7221907/publications.pdf>

Version: 2024-02-01

145
papers

4,011
citations

147566

31
h-index

133063

59
g-index

156
all docs

156
docs citations

156
times ranked

1929
citing authors

#	ARTICLE	IF	CITATIONS
1	LMI stability conditions for fractional order systems. Computers and Mathematics With Applications, 2010, 59, 1594-1609.	1.4	362
2	A Lyapunov approach to the stability of fractional differential equations. Signal Processing, 2011, 91, 437-445.	2.1	331
3	Fractional system identification for lead acid battery state of charge estimation. Signal Processing, 2006, 86, 2645-2657.	2.1	260
4	Pseudo-state feedback stabilization of commensurate fractional order systems. Automatica, 2010, 46, 1730-1734.	3.0	193
5	How to impose physically coherent initial conditions to a fractional system?. Communications in Nonlinear Science and Numerical Simulation, 2010, 15, 1318-1326.	1.7	174
6	Fractional systems state space description: some wrong ideas and proposed solutions. JVC/Journal of Vibration and Control, 2014, 20, 1076-1084.	1.5	151
7	State variables and transients of fractional order differential systems. Computers and Mathematics With Applications, 2012, 64, 3117-3140.	1.4	141
8	Lithium-ion Open Circuit Voltage (OCV) curve modelling and its ageing adjustment. Journal of Power Sources, 2016, 324, 694-703.	4.0	109
9	On Observability and Pseudo State Estimation of Fractional Order Systems. European Journal of Control, 2012, 18, 260-271.	1.6	106
10	Embedded Fractional Nonlinear Supercapacitor Model and Its Parametric Estimation Method. IEEE Transactions on Industrial Electronics, 2010, 57, 3991-4000.	5.2	100
11	Fractional Order Differentiation and Robust Control Design. Intelligent Systems, Control and Automation: Science and Engineering, 2015, , .	0.3	80
12	Ignition of a confined high explosive under low velocity impact. International Journal of Impact Engineering, 2009, 36, 537-550.	2.4	72
13	A fractional order model for lead-acid battery crankability estimation. Communications in Nonlinear Science and Numerical Simulation, 2010, 15, 1308-1317.	1.7	72
14	Transients of fractional-order integrator and derivatives. Signal, Image and Video Processing, 2012, 6, 359-372.	1.7	72
15	Fractional Order Controller Design for A Flexible Link Manipulator Robot. Asian Journal of Control, 2013, 15, 783-795.	1.9	72
16	On Lead-Acid-Battery Resistance and Cranking-Capability Estimation. IEEE Transactions on Industrial Electronics, 2010, 57, 909-917.	5.2	63
17	LMI Tools for Stability Analysis of Fractional Systems. , 2005, , 1611.		61
18	Fractional non-linear modelling of ultracapacitors. Communications in Nonlinear Science and Numerical Simulation, 2010, 15, 1327-1337.	1.7	60

#	ARTICLE	IF	CITATIONS
19	analysis and control of commensurate fractional order systems. Mechatronics, 2013, 23, 772-780.	2.0	60
20	Crone control of a nonlinear hydraulic actuator. Control Engineering Practice, 2002, 10, 391-402.	3.2	59
21	Title is missing!. Nonlinear Dynamics, 2002, 29, 363-385.	2.7	55
22	Robust Speed Control of a Low Damped Electromechanical System Based on CRONE Control: Application to a Four Mass Experimental Test Bench. Nonlinear Dynamics, 2004, 38, 383-400.	2.7	55
23	Lithium-ion batteries modeling: A simple fractional differentiation based model and its associated parameters estimation method. Signal Processing, 2015, 107, 290-301.	2.1	51
24	A Mathematical Model for the Simulation of New and Aged Automotive Lead-Acid Batteries. Journal of the Electrochemical Society, 2009, 156, A974.	1.3	49
25	Lithium-ion batteries modeling involving fractional differentiation. Journal of Power Sources, 2014, 262, 36-43.	4.0	49
26	A stability test for non-commensurate fractional order systems. Systems and Control Letters, 2013, 62, 739-746.	1.3	47
27	An overview of the CRONE approach in system analysis, modeling and identification, observation and control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 14254-14265.	0.4	45
28	THE CRONE APPROACH: THEORETICAL DEVELOPMENTS AND MAJOR APPLICATIONS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 324-354.	0.4	44
29	Low frequency constant-phase behavior in the respiratory impedance. Biomedical Signal Processing and Control, 2011, 6, 197-208.	3.5	40
30	Comments on the description and initialization of fractional partial differential equations using Riemannâ€Liouvilleâ€™s and Caputoâ€™s definitions. Journal of Computational and Applied Mathematics, 2018, 339, 30-39.	1.1	37
31	ON STABILITY OF COMMENSURATE FRACTIONAL ORDER SYSTEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250084.	0.7	34
32	Power Law Type Long Memory Behaviors Modeled with Distributed Time Delay Systems. Fractal and Fractional, 2020, 4, 1.	1.6	33
33	Thermal modeling and identification of an aluminum rod using fractional calculus. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 958-963.	0.4	32
34	Direct 3D-printing of phosphate glass by fused deposition modeling. Materials and Design, 2020, 194, 108957.	3.3	31
35	Pseudo state feedback stabilization of commensurate fractional order systems. , 2009, , .		23
36	Some Alternative Solutions to Fractional Models for Modelling Power Law Type Long Memory Behaviours. Mathematics, 2020, 8, 196.	1.1	23

#	ARTICLE	IF	CITATIONS
37	CRONE control of continuous linear time periodic systems: Application to a testing bench. ISA Transactions, 2003, 42, 421-436.	3.1	21
38	LMI Characterization of Fractional Systems Stability. , 2007, , 419-434.		21
39	Bode optimal loop shaping with CRONE compensators. JVC/Journal of Vibration and Control, 2011, 17, 1964-1974.	1.5	21
40	Fractional order polytopic systems: robust stability and stabilisation. Advances in Difference Equations, 2011, 2011, .	3.5	20
41	Fractional Models for Thermal Modeling and Temperature Estimation of a Transistor Junction. Advances in Difference Equations, 2011, 2011, 1-12.	3.5	20
42	Fractional-Order Derivatives Defined by Continuous Kernels: Are They Really Too Restrictive?. Fractal and Fractional, 2020, 4, 40.	1.6	20
43	On bounded real lemma for fractional systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 15267-15272.	0.4	19
44	PLC implementation of a crone controller. Fractional Calculus and Applied Analysis, 2011, 14, 505-522.	1.2	19
45	New trends in fractional dynamics. JVC/Journal of Vibration and Control, 2014, 20, 963-963.	1.5	19
46	On computation of H^∞ norm for commensurate fractional order systems. , 2011, , .		18
47	Fractional models for lithium-ion batteries. , 2013, , .		17
48	CRONE control based anti-icing/deicing system for wind turbine blades. Control Engineering Practice, 2016, 56, 200-209.	3.2	17
49	Beyond the particular case of circuits with geometrically distributed components for approximation of fractional order models: Application to a new class of model for power law type long memory behaviour modelling. Journal of Advanced Research, 2020, 25, 243-255.	4.4	16
50	Extension of PID to fractional orders controllers: a frequency-domain tutorial presentation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 7436-7442.	0.4	15
51	Approximation of a fractional order model by an integer order model: a new approach taking into account approximation error as an uncertainty. JVC/Journal of Vibration and Control, 2016, 22, 2069-2082.	1.5	15
52	On Fractional Systems H^∞ -Norm Computation. , 0, , .		14
53	Nonlinear dynamical modeling of adsorption and desorption processes with power-law kinetics: Application to CO_2 Physical Review E, 2020, 102, 052102.	0.8	14
54	Fractional Order Models Are Doubly Infinite Dimensional Models and thus of Infinite Memory: Consequences on Initialization and Some Solutions. Symmetry, 2021, 13, 1099.	1.1	14

#	ARTICLE	IF	CITATIONS
55	Analysis of fractional models physical consistency. JVC/Journal of Vibration and Control, 2017, 23, 895-908.	1.5	13
56	Non-Singular Kernels for Modelling Power Law Type Long Memory Behaviours and Beyond. Cybernetics and Systems, 2020, 51, 383-401.	1.6	13
57	A smart microrobot on chip: design, identification and modeling. , 0, , .		12
58	On Observability of Fractional Order Systems. , 2009, , .		12
59	Robust CRONE Design for a Variable Ratio Planetary Gearing in a Variable Speed Wind Turbine. Asian Journal of Control, 2013, 15, 806-818.	1.9	12
60	Modelling Fractional Behaviours Without Fractional Models. Frontiers in Control Engineering, 2021, 2, .	0.4	12
61	Fractional State Space Description: A Particular Case of the Volterra Equations. Fractal and Fractional, 2020, 4, 23.	1.6	11
62	H^∞ output feedback control of commensurate fractional order systems. , 2013, , .		10
63	Robust fractional order PID controllers: The first generation CRONE CSD approach. , 2014, , .		10
64	A Fractional-Order Electro-Thermal Aging Model for Lifetime Enhancement of Lithium-ion Batteries. IFAC-PapersOnLine, 2018, 51, 220-225.	0.5	10
65	A testing bench for fractional order systems education. Journal European Des Systemes Automatises, 2008, 42, 839-861.	0.3	10
66	Third Generation Crone Control of Continuous Linear Time Periodic Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 299-304.	0.4	9
67	Modal Placement Control Method for Fractional Systems: Application to a Testing Bench. , 2003, , 633.		8
68	Fractional behaviour of partial differential equations whose coefficients are exponential functions of the space variable. Mathematical and Computer Modelling of Dynamical Systems, 2013, 19, 434-450.	1.4	8
69	H^∞ state feedback control of commensurate fractional order systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 54-59.	0.4	8
70	Lithium-ion battery state of charge estimation using a fractional battery model. , 2014, , .		8
71	Long memory models: a first solution to the infinite energy storage ability of linear time-invariant fractional models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 2884-2890.	0.4	8
72	Fractional Order PID and First Generation CRONE Control System Design. Intelligent Systems, Control and Automation: Science and Engineering, 2015, , 63-105.	0.3	8

#	ARTICLE	IF	CITATIONS
91	Time-Varying z-Transform for the Analysis of Discrete-Time Linear Time Periodic Systems. Journal of Dynamical and Control Systems, 2003, 9, 365-392.	0.4	4
92	Fractional order model validation for the lead-acid battery resistance estimation: application to cranking capability. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 558-563.	0.4	4
93	H 2 -norm of fractional transfer functions of implicit type of the first kind. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 2022-2027.	0.4	4
94	H_2 -norm of a class of fractional transfer functions suited for modeling diffusive phenomena. , 2015, , .		4
95	H_2 -norm computation of a class of implicit fractional transfer functions: application to approximation by integer order models. International Journal of Dynamics and Control, 2017, 5, 95-101.	1.5	4
96	Misconceptions in using Riemann-Liouville's and Caputo's definitions for the description and initialization of fractional partial differential equations. IFAC-PapersOnLine, 2017, 50, 8574-8579.	0.5	4
97	Nonlinear Model Predictive Control for a Simulated Reconfigurable Battery Pack. IFAC-PapersOnLine, 2021, 54, 353-358.	0.5	4
98	Fractional Behaviours Modelling with Volterra Equations: Application to a Lithium-Ion Cell and Comparison with a Fractional Model. Fractal and Fractional, 2022, 6, 137.	1.6	4
99	Recursive Distributions of Poles and Zeros for Linear Phase Variations. JVC/Journal of Vibration and Control, 2008, 14, 1557-1571.	1.5	3
100	Bode optimal loop shaping with CRONE compensators. , 2008, , .		3
101	A New Non-Linear Supercapacitor Embedded Model and Its Online Time Identification Method. , 2009, , .		3
102	An Implementation Solution for Fractional Partial Differential Equations. Mathematical Problems in Engineering, 2013, 2013, 1-7.	0.6	3
103	New optimization criteria for the simplification of the design of third generation CRONE controllers. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 355-360.	0.4	3
104	About fractional models physical consistency: Case of implicit differentiation based fractional order models. , 2015, , .		3
105		1.7	3
106	Fractional Models of Lithium-Ion Batteries with Application to State of Charge and Ageing Estimation. Lecture Notes in Electrical Engineering, 2018, , 55-72.	0.3	3
107	Advantages of a limited frequency band fractional integration operator in the definition of fractional models. , 2019, , .		3
108	Robust Design of an Anti-windup Compensated 3rd-Generation Crone Controller. , 2007, , 527-542.		3

#	ARTICLE	IF	CITATIONS
109	Dynamical modelling of random sequential adsorption. , 2020, , .		3
110	Laguerre functions extended to any real derivative orders. , 1999, , .		2
111	ANALYSIS OF TIME VARYING SYSTEMS USING TIME VARYING S-TRANSFORMS AND TIME VARYING Z-TRANSFORMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 249-254.	0.4	2
112	Robust Speed Control of a Low Damped Electromechanical System: Application to a Four Mass Experimental Test Bench. EPE Journal (European Power Electronics and Drives Journal), 2005, 15, 28-35.	0.7	2
113	Design of controllers using damping contours defined from closed loop systems based on fractional complex order integrators. , 2010, , .		2
114	Transistor thermal fractional modeling for junction temperature estimation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 10806-10811.	0.4	2
115	Electrosorption phenomena taken into account in a fractional model of supercapacitor. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 254-259.	0.4	2
116	Design of a Model-based Fractional-Order Controller for Optimal Charging of Batteries. IFAC-PapersOnLine, 2018, 51, 97-102.	0.5	2
117	Ice Accretion Detection and Anti-icing/Deicing Systems for Wind Turbine Blades. Lecture Notes in Electrical Engineering, 2020, , 641-663.	0.3	2
118	Lithium-ion Batteries Aging Monitoring Through Open Circuit Voltage (OCV) Curve Modelling and Adjustment. , 2016, , .		2
119	CRONE Observer of Nonlinear SISO Systems. , 2007, , 1317.		1
120	Application of CRONE Control to a Sampled Time Varying System With Periodic Coefficients. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2008, 130, .	0.9	1
121	Air-Fuel Ratio Control of an Internal Combustion Engine Using CRONE Control Extended to LPV Systems. , 2010, , 71-86.		1
122	Characterization of a non linear fractional model of electrode-tissue impedance for neuronal stimulation. , 2013, , .		1
123	Robust control of a tethered kite for ship propulsion. , 2018, , .		1
124	Fractional robust control of a nonlinear plant. Control of a nonlinear testing bench using the singular perturbation technique and the CRONE approach. Journal European Des Systemes Automatises, 2006, 40, 211-232.	0.3	1
125	A Solution for Ice Accretion Detection on Wind Turbine Blades. , 2017, , .		1
126	Robust Speed Control of a Low Damped Four Mass System Based on CRONE Control. , 2003, , .		1

#	ARTICLE	IF	CITATIONS
127	Flatness Control: Application to a Fractional Thermal System. , 2005, , .		1
128	HVDC Line Parameters Estimation based on Line Transfer Functions Frequency Analysis. , 2015, , .		1
129	BMS-oriented model for Li-ion batteries with mixed SiOx/graphite anodes. , 2020, , .		1
130	Some Proposals for a Renewal in the Field of Fractional Behaviour Analysis and Modelling. Lecture Notes in Networks and Systems, 2022, , 1-25.	0.5	1
131	Propagative Recursive Distributed Parameter Systems and Non Integer Differentiation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 269-274.	0.4	0
132	A Solution for Lead-acid Battery Global State Estimation. ECS Meeting Abstracts, 2009, , .	0.0	0
133	Robust CRONE Design for a Variable Ratio Planetary Gearing in a Variable Speed Wind Turbine. , 2011, , .		0
134	Fractional Order Models for Electrochemical Devices. , 2015, , 141-160.		0
135	Contact Resistance Estimation of Electric Vehicle Charging Connector. , 2017, , .		0
136	Electrical Contact Resistance Estimation With Application to Electric Vehicle Charging Cable. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2018, 140, .	0.9	0
137	Linear Quadratic control law design for commensurate fractional order models. , 2019, , .		0
138	Dynamical properties of fractional models. , 2019, , 29-56.		0
139	$H_{\hat{\alpha}}$ and $H_{2\alpha}$ control of fractional models. , 2019, , 73-100.		0
140	On the Implementation of a Limited Frequency Band Integrator and Application to Energetic Material Ignition Prediction. , 2010, , 273-285.		0
141	A Control Solution for a Tethered Kite Trajectory Tracking With Application to Ship Propulsion. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2020, 142, .	0.9	0
142	Introduction of new kernels and new models to solve the drawbacks of fractional integration/differentiation operators and classical fractional-order models. , 2022, , 551-586.		0
143	Partial Differential Equations with Spatially Variable Coefficients. Intelligent Systems, Control and Automation: Science and Engineering, 2022, , 97-117.	0.3	0
144	Fractional Order Models. Intelligent Systems, Control and Automation: Science and Engineering, 2022, , 13-39.	0.3	0

#	ARTICLE	IF	CITATIONS
145	Adsorption on Fractal Surfaces: A Non Linear Modeling Approach of Fractional Behavior. Lecture Notes in Networks and Systems, 2022, , 96-105.	0.5	0