

# Duarte ValÃ©rio

## List of Publications by Year in descending order

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Version: 2024-02-01

73  
papers

2,141  
citations

361296

20  
h-index

243529

44  
g-index

75  
all docs

75  
docs citations

75  
times ranked

1498  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tuning of fractional PID controllers with Ziegler–Nichols-type rules. <i>Signal Processing</i> , 2006, 86, 2771-2784.	2.1	395
2	Variable-order fractional derivatives and their numerical approximations. <i>Signal Processing</i> , 2011, 91, 470-483.	2.1	224
3	Fractional calculus: A survey of useful formulas. <i>European Physical Journal: Special Topics</i> , 2013, 222, 1827-1846.	1.2	193
4	Introduction to single-input, single-output fractional control. <i>IET Control Theory and Applications</i> , 2011, 5, 1033-1057.	1.2	128
5	Some pioneers of the applications of fractional calculus. <i>Fractional Calculus and Applied Analysis</i> , 2014, 17, 552-578.	1.2	128
6	Optimisation of wave energy extraction with the Archimedes Wave Swing. <i>Ocean Engineering</i> , 2007, 34, 2330-2344.	1.9	105
7	Time-domain implementation of fractional order controllers. <i>IET Control Theory and Applications</i> , 2005, 152, 539-552.	1.7	92
8	Variable order fractional systems. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2019, 71, 231-243.	1.7	75
9	An Introduction to Fractional Control. , 2012, , .		50
10	Identifying a Transfer Function From a Frequency Response. <i>Journal of Computational and Nonlinear Dynamics</i> , 2008, 3, .	0.7	49
11	Identification and control of the AWS using neural network models. <i>Applied Ocean Research</i> , 2008, 30, 178-188.	1.8	40
12	Fractional calculus in economic growth modelling: the Spanish and Portuguese cases. <i>International Journal of Dynamics and Control</i> , 2017, 5, 208-222.	1.5	40
13	Modelling and control of a wave energy converter. <i>Renewable Energy</i> , 2011, 36, 1913-1921.	4.3	37
14	Fractional order human arm dynamics with variability analyses. <i>Mechatronics</i> , 2013, 23, 805-812.	2.0	37
15	Variable Order Fractional Controllers. <i>Asian Journal of Control</i> , 2013, 15, 648-657.	1.9	33
16	TUNING-RULES FOR FRACTIONAL PID CONTROLLERS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006, 39, 28-33.	0.4	32
17	Machine Learning and Natural Language Processing for Prediction of Human Factors in Aviation Incident Reports. <i>Aerospace</i> , 2021, 8, 47.	1.1	31
18	ISWEC linear quadratic regulator oscillating control. <i>Renewable Energy</i> , 2017, 103, 372-382.	4.3	25

#	ARTICLE	IF	CITATIONS
19	Fractional Calculus in Economic Growth Modelling of the Group of Seven. Fractional Calculus and Applied Analysis, 2019, 22, 139-157.	1.2	24
20	Identifying a non-commensurable fractional transfer function from a frequency response. Signal Processing, 2015, 107, 254-264.	2.1	22
21	How Many Fractional Derivatives Are There?. Mathematics, 2022, 10, 737.	1.1	22
22	On the numerical computation of the Mittag-Leffler function. Communications in Nonlinear Science and Numerical Simulation, 2014, 19, 3419-3424.	1.7	21
23	Finding a fractional model from frequency and time responses. Communications in Nonlinear Science and Numerical Simulation, 2010, 15, 911-921.	1.7	20
24	Dynamic modeling of bone metastasis, microenvironment and therapy. Journal of Theoretical Biology, 2016, 391, 1-12.	0.8	19
25	Fractional calculus in economic growth modeling. The Portuguese case. , 2014, , .		16
26	Entropy Analysis of a Railway Network's Complexity. Entropy, 2016, 18, 388.	1.1	16
27	Comparison of control strategies performance for a Wave Energy Converter. , 2008, , .		15
28	Identifying digital and fractional transfer functions from a frequency response. International Journal of Control, 2011, 84, 445-457.	1.2	15
29	Identification of Fractional Models from Frequency Data. , 2007, , 229-242.		15
30	Fractional Derivatives for Economic Growth Modelling of the Group of Twenty: Application to Prediction. Mathematics, 2020, 8, 50.	1.1	15
31	Fractional sliding mode control of MIMO nonlinear noncommensurable plants. JVC/Journal of Vibration and Control, 2014, 20, 1052-1065.	1.5	14
32	Reset control approximates complex order transfer functions. Nonlinear Dynamics, 2019, 97, 2323-2337.	2.7	14
33	Fractional-Order Colour Image Processing. Mathematics, 2021, 9, 457.	1.1	13
34	Space debris generation in GEO: Space materials testing and evaluation. Acta Astronautica, 2022, 192, 258-275.	1.7	13
35	Tuning Rules for Fractional PIDs. , 2007, , 463-476.		12
36	Rule-Based Fractional Control of an Irrigation Canal. Journal of Computational and Nonlinear Dynamics, 2011, 6, .	0.7	11

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37	Multi-agent management system for electric vehicle charging. International Transactions on Electrical Energy Systems, 2015, 25, 770-788.	1.2	11
38	Simplifying biochemical tumorous bone remodeling models through variable order derivatives. Computers and Mathematics With Applications, 2018, 75, 3147-3157.	1.4	10
39	Linear model identification of the Archimedes Wave Swing. , 2007, , .		9
40	2D PCA-based localization for mobile robots in unstructured environments. , 2012, , .		9
41	Feedback linearisation control applied to the Archimedes Wave Swing. , 2007, , .		8
42	Rule-based fractional control of an irrigation canal. , 2009, , .		8
43	Fractional reset control. Signal, Image and Video Processing, 2012, 6, 495-501.	1.7	6
44	Fractional Calculus in Economic Growth Modelling: The Spanish Case. Lecture Notes in Electrical Engineering, 2015, , 449-458.	0.3	6
45	A fractional perspective to the modelling of Lisbon's public transportation network. Transportation, 2019, 46, 1893-1913.	2.1	6
46	Comparison of control strategies applied to the Archimedes Wave Swing. , 2007, , .		5
47	Laboratory Software for the Three-Tank Benchmark System: From PID to Multi-Agent Fault-Tolerant Fractional Control. Procedia, Social and Behavioral Sciences, 2012, 46, 1919-1923.	0.5	5
48	Multi-agent PID and fractional PID control of the three-tank benchmark system. , 2010, , .		4
49	Development of a multi-agent management system for an intelligent charging network of electric vehicles. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 12267-12272.	0.4	4
50	Fractional direct and inverse models of the dynamics of a human arm. JVC/Journal of Vibration and Control, 2016, 22, 2240-2254.	1.5	4
51	Variable Order Differential Models of Bone Remodelling * *This work was supported by FCT, through IDMEC, under LAETA, projects UID/EMS/50022/2013, BoneSys, joint Polish-Portuguese project Modelling and controlling cancer evolution using fractional calculus, PERSEIDS (PTDC/EMS-SIS/0642/2014) and IF/00653/2012. IFAC-PapersOnLine, 2017, 50, 8066-8071.	0.5	4
52	ISWEC Devices on a Wave Farm Handled by a Multi-Agent System. Applied Ocean Research, 2021, 111, 102659.	1.8	4
53	Air pressure forecasting for the Mutriku oscillating water column wave power plant: Review and case study. IET Renewable Power Generation, 2021, 15, 3485-3503.	1.7	4
54	Online identification of pain model in postanesthesia care unit for drug infusion optimization. , 2021, , .		4

#	ARTICLE	IF	CITATIONS
55	Closed-Loop Frequency Analysis of Reset Control Systems. IEEE Transactions on Automatic Control, 2023, 68, 1146-1153.	3.6	3
56	Creation of a Virtual Graphic Interface Applied to a Process Control System. Procedia, Social and Behavioral Sciences, 2012, 46, 565-569.	0.5	2
57	Dynamic Biochemical and Cellular Models of Bone Physiology: Integrating Remodeling Processes, Tumor Growth, and Therapy. Lecture Notes in Computational Vision and Biomechanics, 2020, , 95-128.	0.5	2
58	Fractional order identification of human arm dynamics: Preliminary results. , 2013, , .		2
59	Robustness assessment of model-based control for the Archimedes Wave Swing. , 2009, , .		1
60	Short-term prediction in an Oscillating Water Column using Artificial Neural Networks. , 2018, , .		1
61	Studying Bone Remodelling and Tumour Growth for Therapy Predictive Control. Mathematics, 2020, 8, 679.	1.1	1
62	Dynamic modeling of bone remodeling, osteolytic metastasis and PK/PD therapy: introducing variable order derivatives as a simplification technique. Journal of Mathematical Biology, 2021, 83, 39.	0.8	1
63	Variable-order derivatives and bone remodeling in the presence of metastases. , 2019, , 69-94.		1
64	Digital implementation of non-integer control and its application to a two-link robotic arm. , 2003, , .		1
65	Numerical comparison between deep water and intermediate water depth expressions applied to a wave energy converter. AIMS Energy, 2015, 3, 525-546.	1.1	1
66	Direct and Inverse Models of Human Arm Dynamics. , 2015, , .		1
67	Fractional Control of an Offshore Wind System. SSRN Electronic Journal, 0, , .	0.4	1
68	Path Planning and Guidance Laws of a Formula Student Driverless Car. World Electric Vehicle Journal, 2022, 13, 100.	1.6	1
69	Fault Detection System for the $\tilde{A}$ ovora Irrigation Canal. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 750-755.	0.4	0
70	Bone Remodelling, Tumour Growth, and Fractional Order Therapy Predictive Control. SSRN Electronic Journal, 2018, , .	0.4	0
71	Variable Order Fractional Derivatives and Bone Remodeling in the Presence of Metastases. , 2018, , 1-36.		0
72	Fractional Order Processing of Satellite Images. Applied Sciences (Switzerland), 2021, 11, 5288.	1.3	0

#	ARTICLE	IF	CITATIONS
73	Offshore Wind System in the Way of Energy 4.0: Ride Through Fault Aided by Fractional PI Control and VRFB. Springer Proceedings in Mathematics and Statistics, 2019, , 85-106.	0.1	0