Mohammad Saleh Tavazoei

List of Publications by Citations

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28 3,141 123 52 g-index h-index citations papers 3,649 6.14 133 3.4 avg, IF L-index ext. citations ext. papers

#	Paper	IF	Citations
123	A necessary condition for double scroll attractor existence in fractional-order systems. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007 , 367, 102-113	2.3	263
122	Chaotic attractors in incommensurate fractional order systems. <i>Physica D: Nonlinear Phenomena</i> , 2008 , 237, 2628-2637	3.3	239
121	Comparison of different one-dimensional maps as chaotic search pattern in chaos optimization algorithms. <i>Applied Mathematics and Computation</i> , 2007 , 187, 1076-1085	2.7	191
120	Synchronization of chaotic fractional-order systems via active sliding mode controller. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2008 , 387, 57-70	3.3	191
119	A note on the stability of fractional order systems. <i>Mathematics and Computers in Simulation</i> , 2009 , 79, 1566-1576	3.3	171
118	A proof for non existence of periodic solutions in time invariant fractional order systems. <i>Automatica</i> , 2009 , 45, 1886-1890	5.7	136
117	Limitations of frequency domain approximation for detecting chaos in fractional order systems. <i>Nonlinear Analysis: Theory, Methods & Applications</i> , 2008 , 69, 1299-1320	1.3	112
116	Some Applications of Fractional Calculus in Suppression of Chaotic Oscillations. <i>IEEE Transactions on Industrial Electronics</i> , 2008 , 55, 4094-4101	8.9	100
115	A note on fractional-order derivatives of periodic functions. <i>Automatica</i> , 2010 , 46, 945-948	5.7	93
114	Chaos control via a simple fractional-order controller. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2008 , 372, 798-807	2.3	70
113	Rational approximations in the simulation and implementation of fractional-order dynamics: A descriptor system approach. <i>Automatica</i> , 2010 , 46, 94-100	5.7	64
112	Compensation by fractional-order phase-lead/lag compensators. <i>IET Control Theory and Applications</i> , 2014 , 8, 319-329	2.5	63
111	Notes on integral performance indices in fractional-order control systems. <i>Journal of Process Control</i> , 2010 , 20, 285-291	3.9	63
110	Robust synchronization of perturbed Chen fractional-order chaotic systems. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2011 , 16, 1044-1051	3.7	59
109	From Traditional to Fractional PI Control: A Key for Generalization. <i>IEEE Industrial Electronics Magazine</i> , 2012 , 6, 41-51	6.2	57
108	An optimization algorithm based on chaotic behavior and fractal nature. <i>Journal of Computational and Applied Mathematics</i> , 2007 , 206, 1070-1081	2.4	55
	Simple Fractional Order Model Structures and their Applications in Control System Design.		

(2010-2015)

106	Realizability of Fractional-Order Impedances by Passive Electrical Networks Composed of a Fractional Capacitor and RLC Components. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2015 , 62, 2829-2835	3.9	45	
105	On tuning fractional order [proportionalderivative] controllers for a class of fractional order systems. <i>Automatica</i> , 2013 , 49, 2297-2301	5.7	44	
104	Passive Realization of Fractional-Order Impedances by a Fractional Element and RLC Components: Conditions and Procedure. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2017 , 64, 585-595	3.9	34	
103	Determination of active sliding mode controller parameters in synchronizing different chaotic systems. <i>Chaos, Solitons and Fractals</i> , 2007 , 32, 583-591	9.3	34	
102	Stability Preservation Analysis for Frequency-Based Methods in Numerical Simulation of Fractional Order Systems. <i>SIAM Journal on Numerical Analysis</i> , 2009 , 47, 321-338	2.4	33	
101	Synchronization of uncertain chaotic systems using active sliding mode control. <i>Chaos, Solitons and Fractals</i> , 2007 , 33, 1230-1239	9.3	33	
100	Analysis of undamped oscillations generated by marginally stable fractional order systems. <i>Signal Processing</i> , 2008 , 88, 2971-2978	4.4	33	
99	Some Analytical Results on Tuning Fractional-Order [ProportionalIntegral] Controllers for Fractional-Order Systems. <i>IEEE Transactions on Control Systems Technology</i> , 2016 , 24, 1059-1066	4.8	32	
98	Stabilization of Unstable Fixed Points of Chaotic Fractional Order Systems by a State Fractional PI Controller. <i>European Journal of Control</i> , 2008 , 14, 247-257	2.5	32	
97	Analysis of a fractional order Van der Pol-like oscillator via describing function method. <i>Nonlinear Dynamics</i> , 2010 , 61, 265-274	5	29	
96	Describing function based methods for predicting chaos in a class of fractional order differential equations. <i>Nonlinear Dynamics</i> , 2009 , 57, 363-373	5	28	
95	Overshoot in the step response of fractional-order control systems. <i>Journal of Process Control</i> , 2012 , 22, 90-94	3.9	27	
94	Notes on the State Space Realizations of Rational Order Transfer Functions. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2011 , 58, 1099-1108	3.9	26	
93	Achievable Performance Region for a Fractional-Order Proportional and Derivative Motion Controller. <i>IEEE Transactions on Industrial Electronics</i> , 2015 , 62, 7171-7180	8.9	23	
92	Comments on Thaos Synchronization of Uncertain Fractional-Order Chaotic Systems With Time Delay Based on Adaptive Fuzzy Sliding Mode Control <i>IEEE Transactions on Fuzzy Systems</i> , 2012 , 20, 993	-993	22	
91	Using fractional-order integrator to control chaos in single-input chaotic systems. <i>Nonlinear Dynamics</i> , 2009 , 55, 179-190	5	21	
90	Maximum Number of Frequencies in Oscillations Generated by Fractional Order LTI Systems. <i>IEEE Transactions on Signal Processing</i> , 2010 , 58, 4003-4012	4.8	20	
89	Identifiability of fractional order systems using input output frequency contents. <i>ISA Transactions</i> , 2010 , 49, 207-14	5.5	20	

88	Non-fragile control and synchronization of a new fractional order chaotic system. <i>Applied Mathematics and Computation</i> , 2013 , 222, 712-721	2.7	19
87	On Monotonic and Nonmonotonic Step Responses in Fractional Order Systems. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2011 , 58, 447-451	3.5	19
86	Fractional order chaotic systems: history, achievements, applications, and future challenges. <i>European Physical Journal: Special Topics</i> , 2020 , 229, 887-904	2.3	18
85	Robust stability analysis of uncertain multiorder fractional systems: Young and Jensen inequalities approach. <i>International Journal of Robust and Nonlinear Control</i> , 2018 , 28, 1127-1144	3.6	18
84	Regular oscillations or chaos in a fractional order system with any effective dimension. <i>Nonlinear Dynamics</i> , 2008 , 54, 213-222	5	18
83	Stability analysis of fractional order time-delay systems: constructing new Lyapunov functions from those of integer order counterparts. <i>IET Control Theory and Applications</i> , 2019 , 13, 2476-2481	2.5	17
82	On type number concept in fractional-order systems. <i>Automatica</i> , 2013 , 49, 301-304	5.7	17
81	A new view to ZieglerNichols step response tuning method: Analytic non-fragility justification. <i>Journal of Process Control</i> , 2013 , 23, 23-33	3.9	17
80	Desirably Adjusting Gain Margin, Phase Margin, and Corresponding Crossover Frequencies Based on Frequency Data. <i>IEEE Transactions on Industrial Informatics</i> , 2017 , 13, 2311-2321	11.9	16
79	Application of stability region centroids in robust PI stabilization of a class of second-order systems. <i>Transactions of the Institute of Measurement and Control</i> , 2012 , 34, 487-498	1.8	16
78	Chaos generation via a switching fractional multi-model system. <i>Nonlinear Analysis: Real World Applications</i> , 2010 , 11, 332-340	2.1	16
77	Stability preservation analysis in direct discretization of fractional order transfer functions. <i>Signal Processing</i> , 2011 , 91, 508-512	4.4	15
76	Stability analysis of distributed-order nonlinear dynamic systems. <i>International Journal of Systems Science</i> , 2018 , 49, 523-536	2.3	14
75	Minimal Realizations for Some Classes of Fractional Order Transfer Functions. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , 2013 , 3, 313-321	5.2	14
74	Over- and under-convergent step responses in fractional-order transfer functions. <i>Transactions of the Institute of Measurement and Control</i> , 2010 , 32, 376-394	1.8	14
73	Stability criteria for a class of fractional order systems. <i>Nonlinear Dynamics</i> , 2010 , 61, 153-161	5	14
72	Estimation of the Order and Parameters of a Fractional Order Model From a Noisy Step Response Data1. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2014 , 136,	1.6	13
71	Improving integral square error performance with implementable fractional-order PI controllers. Optimal Control Applications and Methods, 2014, 35, 303-323	1.7	13

70	On tuning FO[PI] controllers for FOPDT processes. <i>Electronics Letters</i> , 2013 , 49, 1326-1328	1.1	12
69	Prediction of chaos in non-salient permanent-magnet synchronous machines. <i>Physics Letters, Section A: General, Atomic and Solid State Physics,</i> 2012 , 377, 73-79	2.3	12
68	Experimental study of a chaos-based communication system in the presence of unknown transmission delay. <i>International Journal of Circuit Theory and Applications</i> , 2010 , 38, 1013-1025	2	12
67	Fractional order control of thermal systems: achievability of frequency-domain requirements. <i>Nonlinear Dynamics</i> , 2015 , 80, 1773-1783	5	11
66	Study on Control Input Energy Efficiency of Fractional Order Control Systems. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , 2013 , 3, 475-482	5.2	11
65	Chaos in the APFM nonlinear adaptive filter. Signal Processing, 2009, 89, 697-702	4.4	11
64	Reduction of oscillations via fractional order pre-filtering. Signal Processing, 2015, 107, 407-414	4.4	10
63	Fractional/distributed-order systems and irrational transfer functions with monotonic step responses. <i>JVC/Journal of Vibration and Control</i> , 2014 , 20, 1697-1706	2	10
62	Proportional stabilization and closed-loop identification of an unstable fractional order process. Journal of Process Control, 2014 , 24, 542-549	3.9	10
61	Comments on "Stability Analysis of a Class of Nonlinear Fractional-Order Systems. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2009 , 56, 519-520	3.5	10
60	Robust Fractional-Order Compensation in the Presence of Uncertainty in a Pole/Zero of the Plant. <i>IEEE Transactions on Control Systems Technology</i> , 2018 , 26, 797-812	4.8	9
59	Adaptive robust control of fractional-order swarm systems in the presence of model uncertainties and external disturbances. <i>IET Control Theory and Applications</i> , 2018 , 12, 961-969	2.5	9
58	Algebraic Conditions for Stability Analysis of Linear Time-Invariant Distributed Order Dynamic Systems: A Lagrange Inversion Theorem Approach. <i>Asian Journal of Control</i> , 2019 , 21, 879-890	1.7	9
57	Constrained swarm stabilization of fractional order linear time invariant swarm systems. <i>IEEE/CAA Journal of Automatica Sinica</i> , 2016 , 3, 320-331	7	9
56	On a generalized fractional-order LTI compensator: exact formulas for compensation at two different frequencies. <i>JVC/Journal of Vibration and Control</i> , 2016 , 22, 4074-4086	2	8
55	Toward Searching Possible Oscillatory Region in Order Space for Nonlinear Fractional-Order Systems. <i>Journal of Computational and Nonlinear Dynamics</i> , 2014 , 9,	1.4	8
54	Simultaneous Compensation of the Gain, Phase, and Phase-Slope. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2016 , 138,	1.6	8
53	Passively realisable impedance functions by using two fractional elements and some resistors. <i>IET Circuits, Devices and Systems</i> , 2018 , 12, 280-285	1.1	8

52	On Stability and Trajectory Boundedness of LotkaWolterra Systems With Polytopic Uncertainty. <i>IEEE Transactions on Automatic Control</i> , 2017 , 62, 6423-6429	5.9	7
51	Global Stabilization of Lotkal/olterra Systems With Interval Uncertainty. <i>IEEE Transactions on Automatic Control</i> , 2019 , 64, 1209-1213	5.9	7
50	Optimal Tuning for Fractional-Order Controllers: An Integer-Order Approximating Filter Approach. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2013 , 135,	1.6	7
49	Periodic characteristic ratio (PCR) method: An alternative method to determine the characteristic polynomial. <i>Mathematics and Computers in Simulation</i> , 2010 , 80, 1841-1853	3.3	7
48	Non-Uniform Reducing the Involved Differentiators (Drders and Lyapunov Stability Preservation Problem in Dynamic Systems. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2020 , 67, 735-73	33 ₅	7
47	Algebraic conditions for monotonicity of magnitude-frequency responses in all-pole fractional order systems. <i>IET Control Theory and Applications</i> , 2014 , 8, 1091-1095	2.5	6
46	Robust Stability Analysis of Distributed-Order Linear Time-Invariant Systems With Uncertain Order Weight Functions and Uncertain Dynamic Matrices. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2017 , 139,	1.6	6
45	Oscillations in fractional order LTI systems: Harmonic analysis and further results. <i>Signal Processing</i> , 2013 , 93, 1243-1250	4.4	6
44	Stabilization of Unstable Fixed Points of Fractional-Order Systems by Fractional-Order Linear Controllers and Its Applications in Suppression of Chaotic Oscillations. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2010 , 132,	1.6	6
43	Nonlinear Fractional-Order Circuits and Systems: Motivation, A Brief Overview, and Some Future Directions. <i>IEEE Open Journal of Circuits and Systems</i> , 2020 , 1, 220-232	1.7	6
42	Upper and Lower Bounds for the Maximum Number of Frequencies That Can Be Generated by a Class of Fractional Oscillators. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2019 , 66, 1584	<i>3</i> 1893	6
41	Frequency Data-Based Procedure to Adjust Gain and Phase Margins and Guarantee the Uniqueness of Crossover Frequencies. <i>IEEE Transactions on Industrial Electronics</i> , 2020 , 67, 2176-2185	8.9	6
40	Formulation and Numerical Solution for Fractional Order Time Optimal Control Problem Using Pontryagin Minimum Principle. <i>IFAC-PapersOnLine</i> , 2017 , 50, 9224-9229	0.7	5
39	Robust control for time-fractional diffusion processes: application in temperature control of an alpha silicon carbide cutting tool. <i>IET Control Theory and Applications</i> , 2018 , 12, 2022-2030	2.5	5
38	Taming Single Input Chaotic Systems by Fractional Differentiator-Based Controller: Theoretical and Experimental Study. <i>Circuits, Systems, and Signal Processing,</i> 2009 , 28, 625-647	2.2	5
37	Event-Triggered Control of a Class of Nonlinear Systems on the Basis of Indefinite Lyapunov Theory. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2020 , 67, 2104-2108	3.5	5
36	Criteria for response monotonicity preserving in approximation of fractional order systems. <i>IEEE/CAA Journal of Automatica Sinica</i> , 2016 , 3, 422-429	7	5
35	Asymptotic swarm stability of fractional-order swarm systems in the presence of uniform time-delays. <i>International Journal of Control</i> , 2017 , 90, 1182-1191	1.5	4

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34	Comments on Characteristics Analysis and Circuit Implementation for a Fractional-Order System <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2015 , 62, 329-332	3.9	4
33	Ramp Tracking in Systems With Nonminimum Phase Zeros: One-and-a-Half Integrator Approach. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2016 , 138,	1.6	4
32	On Robust Control of Fractional Order Plants: Invariant Phase Margin. <i>Journal of Computational and Nonlinear Dynamics</i> , 2015 , 10,	1.4	4
31	Power-Law Compensator Design for Plants with Uncertainties: Experimental Verification. <i>Electronics (Switzerland)</i> , 2021 , 10, 1305	2.6	4
30	Analysis of Oscillations in Relay Feedback Systems With Fractional-Order Integrating Plants. Journal of Computational and Nonlinear Dynamics, 2017, 12,	1.4	3
29	Adaptive Consensus Tracking for Fractional-Order Linear Time Invariant Swarm Systems. <i>Journal of Computational and Nonlinear Dynamics</i> , 2014 , 9,	1.4	3
28	Maximal Bound for Output Feedback Gain in Stabilization of Fixed Points of Fractional-Order Chaotic Systems. <i>Journal of Computational and Nonlinear Dynamics</i> , 2011 , 6,	1.4	3
27	Reducing conservatism in robust stability analysis of fractional-order-polytopic systems. <i>ISA Transactions</i> , 2022 , 119, 106-117	5.5	3
26	Synthetic Biology-Inspired Robust-Perfect-Adaptation-Achieving Control Systems: Model Reduction and Stability Analysis. <i>IEEE Transactions on Control of Network Systems</i> , 2021 , 8, 233-245	4	3
25	Passively realizable approximations of non-realizable fractional order impedance functions. <i>Journal of the Franklin Institute</i> , 2020 , 357, 7037-7053	4	2
24	Properties of the stability boundary in linear distributed-order systems. <i>International Journal of Systems Science</i> , 2020 , 51, 1733-1743	2.3	2
23	Non-Fragile Tuning of Fractional-Order PD Controllers for IPD-Modelled Processes. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013 , 46, 361-366		2
22	Estimating the fractional order of orthogonal rational functions used in the identification 2008,		2
21	Delay-Independent regulation of blood glucose for type-1 diabetes mellitus patients via an observer-based predictor feedback approach by considering quantization constraints. <i>European Journal of Control</i> , 2022 , 63, 240-252	2.5	2
20	Conditions on Polynomials Involved in Admittance Functions Passively Realizable by Using RLC and Two Fractional Elements. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2020 , 67, 999-1003	3.5	2
19	Event-triggered adaptive control of a class of nonlinear systems with non-parametric uncertainty in the presence of actuator failures. <i>Transactions of the Institute of Measurement and Control</i> , 2021 , 43, 2628-2636	1.8	2
18	Robust control of temperature during local hyperthermia of cancerous tumors. <i>European Journal of Control</i> , 2020 , 52, 67-77	2.5	2
17	Global Stabilization of Uncertain LotkaWolterra Systems via Positive Nonlinear State Feedback. IEEE Transactions on Automatic Control, 2020, 65, 5450-5455	5.9	1

16	Static feedback versus fractionality of the electrical elements in the Van der Pol circuit. <i>Nonlinear Dynamics</i> , 2013 , 72, 365-375	5	1
15	Parameter and Order Estimation from Noisy Step Response Data. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013 , 46, 492-497		1
14	Closed-Form Oscillatory Condition in Electrical Circuits Containing Two Fractional Order Elements. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2022 , 1-1	3.5	1
13	Chaos and Its Degradation-Promoting-Based Control in an Antithetic Integral Feedback Circuit 2022 , 6, 1622-1627		1
12	Guest Editorial Introduction to the Special Section on Nonlinear Fractional-Order Circuits and Systems: Advanced Analysis and Effective Implementation. <i>IEEE Open Journal of Circuits and Systems</i> , 2020 , 1, 218-219	1.7	1
11	Stability analysis of discrete time distributed order LTI dynamic systems 2019 , 101-118		1
10	Non-Fragile HIDrder Reduction of LTI Controllers 2021 , 5, 163-168		1
9	Frequency Content Preservation in Fractional Multi-Frequency Oscillators Despite Reducing the Number of Energy Storage Elements. <i>Circuits, Systems, and Signal Processing</i> ,1	2.2	O
8	Robust Output Regulation: Optimization-Based Synthesis and Event-Triggered Implementation. <i>IEEE Transactions on Automatic Control</i> , 2021 , 1-1	5.9	0
7	Discrete-time SISO LTI Systems with Monotonic Closed-loop Step Responses: Analysis and Control Based on Impulse Response Models. <i>IFAC-PapersOnLine</i> , 2021 , 54, 476-481	0.7	O
6	Comments on ''Fractional-Order Sliding Mode Approach of Buck Converters With Mismatched Disturbances". <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2022 , 1-2	3.9	
5	Magnitude f requency responses of fractional order systems: properties and subsequent results. <i>IET Control Theory and Applications</i> , 2016 , 10, 2474-2481	2.5	
4	Coefficient-Based Classes of Algebraic Conditions to Construct Positive Real Rational Functions. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2021 , 1-1	3.5	
3	Algebraic bound for the phase f requency response of the commande robuste d'ordre non-entier approximation of fractional differentiators and its applications in control systems analysis. JVC/Journal of Vibration and Control, 107754632098776	2	
2	Adaptive Actuator Failure Compensation on the Basis of Contraction Metrics 2022, 6, 1376-1381		
1	Comments on ''Fixed-Time Backstepping Fractional-Order Sliding Mode Excitation Control for Performance Improvement of Power System". <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2022 , 1-2	3.9	