Mohammad Saleh Tavazoei

List of Publications by Year in Descending Order

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

#	Paper	IF	Citations
123	Comments on ''Fractional-Order Sliding Mode Approach of Buck Converters With Mismatched Disturbances''. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2022**, 1-2	3.9	
122	Delay-Independent regulation of blood glucose for type-1 diabetes mellitus patients via an observer-based predictor feedback approach by considering quantization constraints. *European Journal of Control*, **2022**, 63, 240-252	2.5	2
121	Closed-Form Oscillatory Condition in Electrical Circuits Containing Two Fractional Order Elements. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2022**, 1-1	3.5	1
120	Chaos and Its Degradation-Promoting-Based Control in an Antithetic Integral Feedback Circuit **2022**, 6, 1622-1627		1
119	Reducing conservatism in robust stability analysis of fractional-order-polytopic systems. *ISA Transactions*, **2022**, 119, 106-117	5.5	3
118	Adaptive Actuator Failure Compensation on the Basis of Contraction Metrics **2022**, 6, 1376-1381		
117	Comments on ''Fixed-Time Backstepping Fractional-Order Sliding Mode Excitation Control for Performance Improvement of Power System''. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2022**, 1-2	3.9	
116	Event-triggered adaptive control of a class of nonlinear systems with non-parametric uncertainty in the presence of actuator failures. *Transactions of the Institute of Measurement and Control*, **2021**, 43, 2628-2636	1.8	2
115	Power-Law Compensator Design for Plants with Uncertainties: Experimental Verification. *Electronics (Switzerland)*, **2021**, 10, 1305	2.6	4
114	Non-Fragile H Order Reduction of LTI Controllers **2021**, 5, 163-168		1
113	Synthetic Biology-Inspired Robust-Perfect-Adaptation-Achieving Control Systems: Model Reduction and Stability Analysis. *IEEE Transactions on Control of Network Systems*, **2021**, 8, 233-245	4	3
112	Robust Output Regulation: Optimization-Based Synthesis and Event-Triggered Implementation. *IEEE Transactions on Automatic Control*, **2021**, 1-1	5.9	0
111	Coefficient-Based Classes of Algebraic Conditions to Construct Positive Real Rational Functions. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2021**, 1-1	3.5	
110	Discrete-time SISO LTI Systems with Monotonic Closed-loop Step Responses: Analysis and Control Based on Impulse Response Models. *IFAC-PapersOnLine*, **2021**, 54, 476-481	0.7	0
109	Passively realizable approximations of non-realizable fractional order impedance functions. *Journal of the Franklin Institute*, **2020**, 357, 7037-7053	4	2
108	Properties of the stability boundary in linear distributed-order systems. *International Journal of Systems Science*, **2020**, 51, 1733-1743	2.3	2
107	Global Stabilization of Uncertain Lotka Volterra Systems via Positive Nonlinear State Feedback. *IEEE Transactions on Automatic Control*, **2020**, 65, 5450-5455	5.9	1

106	Fractional order chaotic systems: history, achievements, applications, and future challenges. *European Physical Journal: Special Topics*, **2020**, 229, 887-904	2.3	18
105	Conditions on Polynomials Involved in Admittance Functions Passively Realizable by Using RLC and Two Fractional Elements. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2020**, 67, 999-1003	3.5	2
104	Event-Triggered Control of a Class of Nonlinear Systems on the Basis of Indefinite Lyapunov Theory. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2020**, 67, 2104-2108	3.5	5
103	Nonlinear Fractional-Order Circuits and Systems: Motivation, A Brief Overview, and Some Future Directions. *IEEE Open Journal of Circuits and Systems*, **2020**, 1, 220-232	1.7	6
102	Guest Editorial Introduction to the Special Section on Nonlinear Fractional-Order Circuits and Systems: Advanced Analysis and Effective Implementation. *IEEE Open Journal of Circuits and Systems*, **2020**, 1, 218-219	1.7	1
101	Frequency Data-Based Procedure to Adjust Gain and Phase Margins and Guarantee the Uniqueness of Crossover Frequencies. *IEEE Transactions on Industrial Electronics*, **2020**, 67, 2176-2185	8.9	6
100	Robust control of temperature during local hyperthermia of cancerous tumors. *European Journal of Control*, **2020**, 52, 67-77	2.5	2
99	Non-Uniform Reducing the Involved Differentiators Orders and Lyapunov Stability Preservation Problem in Dynamic Systems. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2020**, 67, 735-739	3.5	7
98	Stability analysis of fractional order time-delay systems: constructing new Lyapunov functions from those of integer order counterparts. *IET Control Theory and Applications*, **2019**, 13, 2476-2481	2.5	17
97	Global Stabilization of Lotka Volterra Systems With Interval Uncertainty. *IEEE Transactions on Automatic Control*, **2019**, 64, 1209-1213	5.9	7
96	Algebraic Conditions for Stability Analysis of Linear Time-Invariant Distributed Order Dynamic Systems: A Lagrange Inversion Theorem Approach. *Asian Journal of Control*, **2019**, 21, 879-890	1.7	9
95	Stability analysis of discrete time distributed order LTI dynamic systems **2019**, 101-118		1
94	Upper and Lower Bounds for the Maximum Number of Frequencies That Can Be Generated by a Class of Fractional Oscillators. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2019**, 66, 1584-1593	3.9	6
93	Stability analysis of distributed-order nonlinear dynamic systems. *International Journal of Systems Science*, **2018**, 49, 523-536	2.3	14
92	Robust Fractional-Order Compensation in the Presence of Uncertainty in a Pole/Zero of the Plant. *IEEE Transactions on Control Systems Technology*, **2018**, 26, 797-812	4.8	9
91	Robust stability analysis of uncertain multiorder fractional systems: Young and Jensen inequalities approach. *International Journal of Robust and Nonlinear Control*, **2018**, 28, 1127-1144	3.6	18
90	Robust control for time-fractional diffusion processes: application in temperature control of an alpha silicon carbide cutting tool. *IET Control Theory and Applications*, **2018**, 12, 2022-2030	2.5	5
89	Adaptive robust control of fractional-order swarm systems in the presence of model uncertainties and external disturbances. *IET Control Theory and Applications*, **2018**, 12, 961-969	2.5	9

88	Passively realisable impedance functions by using two fractional elements and some resistors. *IET Circuits, Devices and Systems*, **2018**, 12, 280-285	1.1	8
87	Asymptotic swarm stability of fractional-order swarm systems in the presence of uniform time-delays. *International Journal of Control*, **2017**, 90, 1182-1191	1.5	4
86	On Stability and Trajectory Boundedness of Lotka–Volterra Systems With Polytopic Uncertainty. *IEEE Transactions on Automatic Control*, **2017**, 62, 6423-6429	5.9	7
85	Desirably Adjusting Gain Margin, Phase Margin, and Corresponding Crossover Frequencies Based on Frequency Data. *IEEE Transactions on Industrial Informatics*, **2017**, 13, 2311-2321	11.9	16
84	Formulation and Numerical Solution for Fractional Order Time Optimal Control Problem Using Pontryagin's Minimum Principle. *IFAC-PapersOnLine*, **2017**, 50, 9224-9229	0.7	5
83	Robust Stability Analysis of Distributed-Order Linear Time-Invariant Systems With Uncertain Order Weight Functions and Uncertain Dynamic Matrices. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2017**, 139,	1.6	6
82	Analysis of Oscillations in Relay Feedback Systems With Fractional-Order Integrating Plants. *Journal of Computational and Nonlinear Dynamics*, **2017**, 12,	1.4	3
81	Passive Realization of Fractional-Order Impedances by a Fractional Element and RLC Components: Conditions and Procedure. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2017**, 64, 585-595	3.9	34
80	Some Analytical Results on Tuning Fractional-Order [Proportional–Integral] Controllers for Fractional-Order Systems. *IEEE Transactions on Control Systems Technology*, **2016**, 24, 1059-1066	4.8	32
79	On a generalized fractional-order LTI compensator: exact formulas for compensation at two different frequencies. *JVC/Journal of Vibration and Control*, **2016**, 22, 4074-4086	2	8
78	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
77	Criteria for response monotonicity preserving in approximation of fractional order systems. *IEEE/CAA Journal of Automatica Sinica*, **2016**, 3, 422-429	7	5
76	Constrained swarm stabilization of fractional order linear time invariant swarm systems. *IEEE/CAA Journal of Automatica Sinica*, **2016**, 3, 320-331	7	9
75	Simultaneous Compensation of the Gain, Phase, and Phase-Slope. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2016**, 138,	1.6	8
74	Magnitude–frequency responses of fractional order systems: properties and subsequent results. *IET Control Theory and Applications*, **2016**, 10, 2474-2481	2.5	
73	Comments on "Chaotic Characteristics Analysis and Circuit Implementation for a Fractional-Order System" *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2015**, 62, 329-332	3.9	4
72	Realizability of Fractional-Order Impedances by Passive Electrical Networks Composed of a Fractional Capacitor and RLC Components. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2015**, 62, 2829-2835	3.9	45
71	Achievable Performance Region for a Fractional-Order Proportional and Derivative Motion Controller. *IEEE Transactions on Industrial Electronics*, **2015**, 62, 7171-7180	8.9	23

70	Fractional order control of thermal systems: achievability of frequency-domain requirements. *Nonlinear Dynamics*, **2015**, 80, 1773-1783	5	11
69	Reduction of oscillations via fractional order pre-filtering. *Signal Processing*, **2015**, 107, 407-414	4.4	10
68	On Robust Control of Fractional Order Plants: Invariant Phase Margin. *Journal of Computational and Nonlinear Dynamics*, **2015**, 10,	1.4	4
67	Estimation of the Order and Parameters of a Fractional Order Model From a Noisy Step Response Data1. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2014**, 136,	1.6	13
66	Fractional/distributed-order systems and irrational transfer functions with monotonic step responses. *JVC/Journal of Vibration and Control*, **2014**, 20, 1697-1706	2	10
65	Proportional stabilization and closed-loop identification of an unstable fractional order process. *Journal of Process Control*, **2014**, 24, 542-549	3.9	10
64	Compensation by fractional-order phase-lead/lag compensators. *IET Control Theory and Applications*, **2014**, 8, 319-329	2.5	63
63	Algebraic conditions for monotonicity of magnitude-frequency responses in all-pole fractional order systems. *IET Control Theory and Applications*, **2014**, 8, 1091-1095	2.5	6
62	Improving integral square error performance with implementable fractional-order PI controllers. *Optimal Control Applications and Methods*, **2014**, 35, 303-323	1.7	13
61	Toward Searching Possible Oscillatory Region in Order Space for Nonlinear Fractional-Order Systems. *Journal of Computational and Nonlinear Dynamics*, **2014**, 9,	1.4	8
60	Adaptive Consensus Tracking for Fractional-Order Linear Time Invariant Swarm Systems. *Journal of Computational and Nonlinear Dynamics*, **2014**, 9,	1.4	3
59	Static feedback versus fractionality of the electrical elements in the Van der Pol circuit. *Nonlinear Dynamics*, **2013**, 72, 365-375	5	1
58	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
57	Study on Control Input Energy Efficiency of Fractional Order Control Systems. *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, **2013**, 3, 475-482	5.2	11
56	Non-fragile control and synchronization of a new fractional order chaotic system. *Applied Mathematics and Computation*, **2013**, 222, 712-721	2.7	19
55	On type number concept in fractional-order systems. *Automatica*, **2013**, 49, 301-304	5.7	17
54	On tuning FO[PI] controllers for FOPDT processes. *Electronics Letters*, **2013**, 49, 1326-1328	1.1	12
53	A new view to Ziegler–Nichols step response tuning method: Analytic non-fragility justification. *Journal of Process Control*, **2013**, 23, 23-33	3.9	17

52	Minimal Realizations for Some Classes of Fractional Order Transfer Functions. *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, **2013**, 3, 313-321	5.2	14
51	Oscillations in fractional order LTI systems: Harmonic analysis and further results. *Signal Processing*, **2013**, 93, 1243-1250	4.4	6
50	On tuning fractional order [proportional derivative] controllers for a class of fractional order systems. *Automatica*, **2013**, 49, 2297-2301	5.7	44
49	Parameter and Order Estimation from Noisy Step Response Data. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2013**, 46, 492-497		1
48	Non-Fragile Tuning of Fractional-Order PD Controllers for IPD-Modelled Processes. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2013**, 46, 361-366		2
47	Overshoot in the step response of fractional-order control systems. *Journal of Process Control*, **2012**, 22, 90-94	3.9	27
46	Comments on Chaos Synchronization of Uncertain Fractional-Order Chaotic Systems With Time Delay Based on Adaptive Fuzzy Sliding Mode Control *IEEE Transactions on Fuzzy Systems*, **2012**, 20, 993-995	8.3	22
45	From Traditional to Fractional PI Control: A Key for Generalization. *IEEE Industrial Electronics Magazine*, **2012**, 6, 41-51	6.2	57
44	Prediction of chaos in non-salient permanent-magnet synchronous machines. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2012**, 377, 73-79	2.3	12
43	Application of stability region centroids in robust PI stabilization of a class of second-order systems. *Transactions of the Institute of Measurement and Control*, **2012**, 34, 487-498	1.8	16
42	Notes on the State Space Realizations of Rational Order Transfer Functions. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2011**, 58, 1099-1108	3.9	26
41	Maximal Bound for Output Feedback Gain in Stabilization of Fixed Points of Fractional-Order Chaotic Systems. *Journal of Computational and Nonlinear Dynamics*, **2011**, 6,	1.4	3
40	On Monotonic and Nonmonotonic Step Responses in Fractional Order Systems. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2011**, 58, 447-451	3.5	19
39	Robust synchronization of perturbed Chens fractional-order chaotic systems. *Communications in Nonlinear Science and Numerical Simulation*, **2011**, 16, 1044-1051	3.7	59
38	Stability preservation analysis in direct discretization of fractional order transfer functions. *Signal Processing*, **2011**, 91, 508-512	4.4	15
37	Over- and under-convergent step responses in fractional-order transfer functions. *Transactions of the Institute of Measurement and Control*, **2010**, 32, 376-394	1.8	14
36	Stabilization of Unstable Fixed Points of Fractional-Order Systems by Fractional-Order Linear Controllers and Its Applications in Suppression of Chaotic Oscillations. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2010**, 132,	1.6	6
35	Maximum Number of Frequencies in Oscillations Generated by Fractional Order LTI Systems. *IEEE Transactions on Signal Processing*, **2010**, 58, 4003-4012	4.8	20

34	Simple Fractional Order Model Structures and their Applications in Control System Design. *European Journal of Control*, **2010**, 16, 680-694	2.5	47
33	Stability criteria for a class of fractional order systems. *Nonlinear Dynamics*, **2010**, 61, 153-161	5	14
32	Analysis of a fractional order Van der Pol-like oscillator via describing function method. *Nonlinear Dynamics*, **2010**, 61, 265-274	5	29
31	Experimental study of a chaos-based communication system in the presence of unknown transmission delay. *International Journal of Circuit Theory and Applications*, **2010**, 38, 1013-1025	2	12
30	Rational approximations in the simulation and implementation of fractional-order dynamics: A descriptor system approach. *Automatica*, **2010**, 46, 94-100	5.7	64
29	Identifiability of fractional order systems using input output frequency contents. *ISA Transactions*, **2010**, 49, 207-14	5.5	20
28	Chaos generation via a switching fractional multi-model system. *Nonlinear Analysis: Real World Applications*, **2010**, 11, 332-340	2.1	16
27	Notes on integral performance indices in fractional-order control systems. *Journal of Process Control*, **2010**, 20, 285-291	3.9	63
26	Periodic characteristic ratio (PCR) method: An alternative method to determine the characteristic polynomial. *Mathematics and Computers in Simulation*, **2010**, 80, 1841-1853	3.3	7
25	A note on fractional-order derivatives of periodic functions. *Automatica*, **2010**, 46, 945-948	5.7	93
24	Using fractional-order integrator to control chaos in single-input chaotic systems. *Nonlinear Dynamics*, **2009**, 55, 179-190	5	21
23	Describing function based methods for predicting chaos in a class of fractional order differential equations. *Nonlinear Dynamics*, **2009**, 57, 363-373	5	28
22	Taming Single Input Chaotic Systems by Fractional Differentiator-Based Controller: Theoretical and Experimental Study. *Circuits, Systems, and Signal Processing*, **2009**, 28, 625-647	2.2	5
21	A note on the stability of fractional order systems. *Mathematics and Computers in Simulation*, **2009**, 79, 1566-1576	3.3	171
20	Chaos in the APFM nonlinear adaptive filter. *Signal Processing*, **2009**, 89, 697-702	4.4	11
19	A proof for non existence of periodic solutions in time invariant fractional order systems. *Automatica*, **2009**, 45, 1886-1890	5.7	136
18	Comments on "Stability Analysis of a Class of Nonlinear Fractional-Order Systems. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2009**, 56, 519-520	3.5	10
17	Stability Preservation Analysis for Frequency-Based Methods in Numerical Simulation of Fractional Order Systems. *SIAM Journal on Numerical Analysis*, **2009**, 47, 321-338	2.4	33

16	Some Applications of Fractional Calculus in Suppression of Chaotic Oscillations. *IEEE Transactions on Industrial Electronics*, **2008**, 55, 4094-4101	8.9	100
15	Stabilization of Unstable Fixed Points of Chaotic Fractional Order Systems by a State Fractional PI Controller. *European Journal of Control*, **2008**, 14, 247-257	2.5	32
14	Estimating the fractional order of orthogonal rational functions used in the identification **2008**,		2
13	Regular oscillations or chaos in a fractional order system with any effective dimension. *Nonlinear Dynamics*, **2008**, 54, 213-222	5	18
12	Chaotic attractors in incommensurate fractional order systems. *Physica D: Nonlinear Phenomena*, **2008**, 237, 2628-2637	3.3	239
11	Chaos control via a simple fractional-order controller. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2008**, 372, 798-807	2.3	70
10	Analysis of undamped oscillations generated by marginally stable fractional order systems. *Signal Processing*, **2008**, 88, 2971-2978	4.4	33
9	Synchronization of chaotic fractional-order systems via active sliding mode controller. *Physica A: Statistical Mechanics and Its Applications*, **2008**, 387, 57-70	3.3	191
8	Limitations of frequency domain approximation for detecting chaos in fractional order systems. *Nonlinear Analysis: Theory, Methods & Applications*, **2008**, 69, 1299-1320	1.3	112
7	An optimization algorithm based on chaotic behavior and fractal nature. *Journal of Computational and Applied Mathematics*, **2007**, 206, 1070-1081	2.4	55
6	Synchronization of uncertain chaotic systems using active sliding mode control. *Chaos, Solitons and Fractals*, **2007**, 33, 1230-1239	9.3	33
5	Comparison of different one-dimensional maps as chaotic search pattern in chaos optimization algorithms. *Applied Mathematics and Computation*, **2007**, 187, 1076-1085	2.7	191
4	A necessary condition for double scroll attractor existence in fractional-order systems. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2007**, 367, 102-113	2.3	263
3	Determination of active sliding mode controller parameters in synchronizing different chaotic systems. *Chaos, Solitons and Fractals*, **2007**, 32, 583-591	9.3	34
2	Frequency Content Preservation in Fractional Multi-Frequency Oscillators Despite Reducing the Number of Energy Storage Elements. *Circuits, Systems, and Signal Processing*,1	2.2	0
1	Algebraic bound for the phase frequency 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	