

# Alberto Tesi

## List of Publications by Year in descending order

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47  
papers

2,301  
citations

567281

15  
h-index

345221

36  
g-index

49  
all docs

49  
docs citations

49  
times ranked

1316  
citing authors

#	ARTICLE	IF	CITATIONS
1	On the problem of local minima in backpropagation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1992, 14, 76-86.	13.9	517
2	Harmonic balance methods for the analysis of chaotic dynamics in nonlinear systems. Automatica, 1992, 28, 531-548.	5.0	392
3	Polynomially parameter-dependent Lyapunov functions for robust stability of polytopic systems: an LMI approach. IEEE Transactions on Automatic Control, 2005, 50, 365-370.	5.7	217
4	Homogeneous Lyapunov functions for systems with structured uncertainties. Automatica, 2003, 39, 1027-1035.	5.0	172
5	Homogeneous Polynomial Forms for Robustness Analysis of Uncertain Systems. Lecture Notes in Control and Information Sciences, 2009, , .	1.0	164
6	Solving quadratic distance problems: an LMI-based approach. IEEE Transactions on Automatic Control, 2003, 48, 200-212.	5.7	146
7	Harmonic balance analysis of period-doubling bifurcations with implications for control of nonlinear dynamics. Automatica, 1996, 32, 1255-1271.	5.0	121
8	Robust stability of time-varying polytopic systems via parameter-dependent homogeneous Lyapunov functions. Automatica, 2007, 43, 309-316.	5.0	118
9	A Frequency Method for Predicting Limit Cycle Bifurcations. Nonlinear Dynamics, 1997, 13, 339-360.	5.2	69
10	An overview of extremal properties for robust control of interval plants. Automatica, 1993, 29, 707-721.	5.0	66
11	Robust stability of state-space models with structured uncertainties. IEEE Transactions on Automatic Control, 1990, 35, 191-195.	5.7	64
12	Sonar-Based Wall-Following Control of Mobile Robots. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2000, 122, 226-229.	1.6	25
13	Harmonic balance method to analyze bifurcations in memristor oscillatory circuits. International Journal of Circuit Theory and Applications, 2018, 46, 66-83.	2.0	20
14	THE ÅOJASIEWICZ EXPONENT AT AN EQUILIBRIUM POINT OF A STANDARD CNN IS 1/2. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2006, 16, 2191-2205.	1.7	19
15	Prediction of period doubling bifurcations in harmonically forced memristor circuits. Nonlinear Dynamics, 2019, 96, 1169-1190.	5.2	19
16	HARMONIC BALANCE APPROACH TO PREDICT PERIOD-DOUBLING BIFURCATIONS IN NEARLY SYMMETRIC CNNs. Journal of Circuits, Systems and Computers, 2003, 12, 435-459.	1.5	16
17	Impact of chaotic dynamics on the performance of metaheuristic optimization algorithms: An experimental analysis. Information Sciences, 2022, 587, 692-719.	6.9	16
18	Frequency based design of modal controllers for adaptive optics systems. Optics Express, 2012, 20, 27108.	3.4	15

#	ARTICLE	IF	CITATIONS
19	Memristor Neural Networks for Linear and Quadratic Programming Problems. IEEE Transactions on Cybernetics, 2022, 52, 1822-1835.	9.5	13
20	Models of complex dynamics in nonlinear systems. Systems and Control Letters, 1995, 25, 185-192.	2.3	11
21	Memristor Circuits for Simulating Neuron Spiking and Burst Phenomena. Frontiers in Neuroscience, 2021, 15, 681035.	2.8	11
22	Adaptive disturbance attenuation via logic-based switching. Systems and Control Letters, 2014, 73, 48-57.	2.3	9
23	Input-Output Characterization of the Dynamical Properties of Circuits with a Memelement. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050110.	1.7	8
24	Oscillatory Circuits With a Real Non-Volatile Stanford Memristor Model. IEEE Access, 2022, 10, 13650-13662.	4.2	8
25	Control Design for Targeting Dynamics of Memristor Murali-Lakshmanan-Chua Circuit. , 2019, , .		7
26	Robust Switching Control: Stability Analysis and Application to Active Disturbance Attenuation. IEEE Transactions on Automatic Control, 2017, 62, 6369-6376.	5.7	5
27	Hierarchical switching for active disturbance attenuation with fine controller tuning. International Journal of Adaptive Control and Signal Processing, 2017, 31, 742-760.	4.1	5
28	Input design for controlling dynamics in a second-order memristive circuit. , 2020, , .		5
29	Circuits with a mem-element: invariant manifolds control via pulse programmed sources. Nonlinear Dynamics, 2021, 106, 2577-2606.	5.2	5
30	Detection of subcritical Hopf and fold bifurcations in an aeroelastic system via the Describing Function method. Chaos, Solitons and Fractals, 2022, 157, 111892.	5.1	5
31	Vertices and segments of interval plants are not sufficient for step response analyses. Systems and Control Letters, 1992, 19, 365-370.	2.3	4
32	Regularity Conditions for the Stability Margin Problem with Linear Dependent Perturbations. SIAM Journal on Control and Optimization, 1995, 33, 1000-1016.	2.1	4
33	Frequency response of interval plant-controller families. Systems and Control Letters, 1992, 18, 347-354.	2.3	3
34	A Convex Lower Bound for the Real $\sigma_{\min}$ Parametric Stability Margin of Linear Control Systems With Restricted Complexity Controllers. IEEE Transactions on Automatic Control, 2007, 52, 514-520.	5.7	3
35	A controlled Murali-Lakshmanan-Chua memristor circuit to mimic neuron dynamics. , 2019, , .		3
36	Targeting Multistable Dynamics in a Second-Order Memristor Circuit. , 2020, , .		3

#	ARTICLE	IF	CITATIONS
37	ON THE MARGIN OF COMPLETE STABILITY FOR A CLASS OF CELLULAR NEURAL NETWORKS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 1343-1361.	1.7	2
38	An Approach to Robust Control of the Hopf Bifurcation. Journal of Applied Mathematics, 2011, 2011, 1-21.	0.9	2
39	A hierarchical approach to adaptive disturbance attenuation combining switching and tuning. , 2014, , .		2
40	New method to analyze the invariant manifolds of memristor circuits. Journal of the Franklin Institute, 2022, 359, 11007-11038.	3.4	2
41	Convergence of a Class of Delayed Neural Networks with Real Memristor Devices. Mathematics, 2022, 10, 2439.	2.2	2
42	Switching-based adaptive disturbance attenuation with guaranteed robust stability. , 2015, , .		1
43	Transient Control in Targeting Multistable Dynamics of a Memristor Circuit. , 2021, , .		1
44	Feedforward control of multistability in memristor circuits. , 2021, , .		1
45	Robustness of complete stability for a class of nearly-symmetric cellular neural networks. , 2006, , .		0
46	Switching Control for Adaptive Disturbance Attenuation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1483-1488.	0.4	0
47	Design of a switching controller for adaptive disturbance attenuation with guaranteed stability. , 2015, , .		0