

# Miguel A F Sanjuán

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8863473/publications.pdf>

Version: 2024-02-01

289  
papers

5,856  
citations

94433

37  
h-index

123424

61  
g-index

321  
all docs

321  
docs citations

321  
times ranked

2361  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fractal structures in nonlinear dynamics. <i>Reviews of Modern Physics</i> , 2009, 81, 333-386.	45.6	281
2	Map-based models in neuronal dynamics. <i>Physics Reports</i> , 2011, 501, 1-74.	25.6	232
3	Wada basins and chaotic invariant sets in the Hénon-Heiles system. <i>Physical Review E</i> , 2001, 64, 066208.	2.1	196
4	Experimental evidence, numerics, and theory of vibrational resonance in bistable systems. <i>Physical Review E</i> , 2003, 67, 066119.	2.1	159
5	True and false forbidden patterns in deterministic and random dynamics. <i>Europhysics Letters</i> , 2007, 79, 50001.	2.0	148
6	Basin entropy: a new tool to analyze uncertainty in dynamical systems. <i>Scientific Reports</i> , 2016, 6, 31416.	3.3	135
7	Vibrational resonance in a noise-induced structure. <i>Physical Review E</i> , 2002, 66, 011106.	2.1	98
8	Combinatorial detection of determinism in noisy time series. <i>Europhysics Letters</i> , 2008, 83, 60005.	2.0	95
9	Theory and numerics of vibrational resonance in Duffing oscillators with time-delayed feedback. <i>Physical Review E</i> , 2011, 83, 066205.	2.1	91
10	Single and multiple vibrational resonance in a quintic oscillator with monostable potentials. <i>Physical Review E</i> , 2009, 80, 046608.	2.1	89
11	Nonlinear Resonances. <i>Springer Series in Synergetics</i> , 2016, , .	0.4	84
12	New developments in classical chaotic scattering. <i>Reports on Progress in Physics</i> , 2013, 76, 016001.	20.1	81
13	Unpredictable behavior in the Duffing oscillator: Wada basins. <i>Physica D: Nonlinear Phenomena</i> , 2002, 171, 41-51.	2.8	78
14	Stochastic P-bifurcation and stochastic resonance in a noisy bistable fractional-order system. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2016, 41, 104-117.	3.3	76
15	Synchronization and propagation of bursts in networks of coupled map neurons. <i>Chaos</i> , 2006, 16, 013113.	2.5	74
16	Novel vibrational resonance in multistable systems. <i>Chaos</i> , 2011, 21, 033106.	2.5	74
17	Analysis of vibrational resonance in a quintic oscillator. <i>Chaos</i> , 2009, 19, 043128.	2.5	69
18	Basin topology in dissipative chaotic scattering. <i>Chaos</i> , 2006, 16, 023101.	2.5	60

#	ARTICLE	IF	CITATIONS
19	Limit of small exits in open Hamiltonian systems. <i>Physical Review E</i> , 2003, 67, 056201.	2.1	59
20	Escape patterns, magnetic footprints, and homoclinic tangles due to ergodic magnetic limiters. <i>Physics of Plasmas</i> , 2002, 9, 4917-4928.	1.9	54
21	Symmetry-breaking analysis for the general Helmholtz–Duffing oscillator. <i>Chaos, Solitons and Fractals</i> , 2007, 34, 197-212.	5.1	52
22	Exponential decay and scaling laws in noisy chaotic scattering. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2008, 372, 110-116.	2.1	52
23	Vibrational resonance in biological nonlinear maps. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2012, 17, 3435-3445.	3.3	52
24	Fractal dimension in dissipative chaotic scattering. <i>Physical Review E</i> , 2007, 76, 016208.	2.1	51
25	Bursting regimes in map-based neuron models coupled through fast threshold modulation. <i>Physical Review E</i> , 2008, 77, 051918.	2.1	51
26	A Validated Mathematical Model of Tumor Growth Including Tumor–Host Interaction, Cell-Mediated Immune Response and Chemotherapy. <i>Bulletin of Mathematical Biology</i> , 2014, 76, 2884-2906.	1.9	51
27	VIBRATIONAL RESONANCE IN AN ASYMMETRIC DUFFING OSCILLATOR. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2011, 21, 275-286.	1.7	50
28	Fractal structures in nonlinear plasma physics. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 371-395.	3.4	50
29	ANALYTICAL ESTIMATES OF THE EFFECT OF NONLINEAR DAMPING IN SOME NONLINEAR OSCILLATORS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2000, 10, 2257-2267.	1.7	49
30	THE EFFECT OF NONLINEAR DAMPING ON THE UNIVERSAL ESCAPE OSCILLATOR. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 1999, 09, 735-744.	1.7	48
31	Detecting the weak high-frequency character signal by vibrational resonance in the Duffing oscillator. <i>Nonlinear Dynamics</i> , 2017, 89, 2621-2628.	5.2	46
32	Sparse repulsive coupling enhances synchronization in complex networks. <i>Physical Review E</i> , 2006, 74, 056112.	2.1	45
33	Vibrational resonance in a time-delayed genetic toggle switch. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2013, 18, 411-416.	3.3	45
34	Defining strategies to win in the Internet market. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2001, 301, 512-534.	2.6	42
35	TO ESCAPE OR NOT TO ESCAPE, THAT IS THE QUESTION – PERTURBING THE HÄNON–HEILES HAMILTONIAN. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2012, 22, 1230010.	1.7	42
36	Effects of the spike timing-dependent plasticity on the synchronisation in a random Hodgkin–Huxley neuronal network. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2016, 34, 12-22.	3.3	42

#	ARTICLE	IF	CITATIONS
37	Testing for Basins of Wada. <i>Scientific Reports</i> , 2015, 5, 16579.	3.3	41
38	Effect of noise on chaotic scattering. <i>Physical Review E</i> , 2009, 79, 047202.	2.1	37
39	Ghost-vibrational resonance. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2014, 19, 4003-4012.	3.3	37
40	A generalized perturbed pendulum. <i>Chaos, Solitons and Fractals</i> , 2003, 15, 911-924.	5.1	35
41	Integrability and symmetries for the Helmholtz oscillator with friction. <i>Journal of Physics A</i> , 2003, 36, 695-710.	1.6	35
42	Effect of multiple time-delay on vibrational resonance. <i>Chaos</i> , 2013, 23, 013136.	2.5	35
43	Chaotic dynamics and fractal structures in experiments with cold atoms. <i>Physical Review A</i> , 2017, 95, .	2.5	34
44	Using nonharmonic forcing to switch the periodicity in nonlinear systems. <i>Physical Review E</i> , 1998, 58, 4377-4382.	2.1	32
45	Effect of nonlinear dissipation on the basin boundaries of a driven two-well Rayleighâ€“Duffing oscillator. <i>Chaos, Solitons and Fractals</i> , 2009, 39, 1092-1099.	5.1	32
46	Vibrational subharmonic and superharmonic resonances. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2016, 30, 362-372.	3.3	32
47	Multiple resonance and anti-resonance in coupled Duffing oscillators. <i>Nonlinear Dynamics</i> , 2016, 83, 1803-1814.	5.2	31
48	Recovering an unknown signal completely submerged in strong noise by a new stochastic resonance method. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2019, 66, 156-166.	3.3	31
49	Indecomposable Continua and the Characterization of Strange Sets in Nonlinear Dynamics. <i>Physical Review Letters</i> , 1997, 78, 1892-1895.	7.8	30
50	Indecomposable continua in dynamical systems with noise: Fluid flow past an array of cylinders. <i>Chaos</i> , 1997, 7, 125-138.	2.5	30
51	Relation between structure and size in social networks. <i>Physical Review E</i> , 2002, 65, 036107.	2.1	30
52	Vibrational resonance in groundwater-dependent plant ecosystems. <i>Ecological Complexity</i> , 2013, 15, 33-42.	2.9	30
53	DETECTING DETERMINISM IN TIME SERIES WITH ORDINAL PATTERNS: A COMPARATIVE STUDY. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2010, 20, 2915-2924.	1.7	29
54	Numerical and experimental exploration of phase control of chaos. <i>Chaos</i> , 2006, 16, 013111.	2.5	28

#	ARTICLE	IF	CITATIONS
55	Isochronous synchronization in mutually coupled chaotic circuits. <i>Chaos</i> , 2007, 17, 023128.	2.5	28
56	Role of depth and location of minima of a double-well potential on vibrational resonance. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2010, 43, 465101.	2.1	28
57	EXPERIMENTAL EVIDENCE FOR VIBRATIONAL RESONANCE AND ENHANCED SIGNAL TRANSMISSION IN CHUA'S CIRCUIT. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2013, 23, 1350189.	1.7	28
58	Energy dissipation in a nonlinearly damped Duffing oscillator. <i>Physica D: Nonlinear Phenomena</i> , 2001, 159, 22-34.	2.8	27
59	Hierarchical social networks and information flow. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002, 316, 695-708.	2.6	27
60	Avoiding escapes in open dynamical systems using phase control. <i>Physical Review E</i> , 2008, 78, 016205.	2.1	27
61	ESCAPING DYNAMICS IN THE PRESENCE OF DISSIPATION AND NOISE IN SCATTERING SYSTEMS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2010, 20, 2783-2793.	1.7	27
62	Self-similarity and adaptive aperiodic stochastic resonance in a fractional-order system. <i>Nonlinear Dynamics</i> , 2018, 91, 1697-1711.	5.2	27
63	FRACTAL AND WADA EXIT BASIN BOUNDARIES IN TOKAMAKS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2007, 17, 4067-4079.	1.7	26
64	Patterns in inhibitory networks of simple map neurons. <i>Physical Review E</i> , 2007, 75, 041911.	2.1	26
65	On the occurrence of chaos in a parametrically driven extended Rayleigh oscillator with three-well potential. <i>Chaos, Solitons and Fractals</i> , 2009, 41, 772-782.	5.1	26
66	Finding safety in partially controllable chaotic systems. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2012, 17, 4274-4280.	3.3	26
67	Vibrational resonance in the Morse oscillator. <i>Pramana - Journal of Physics</i> , 2013, 81, 127-141.	1.8	26
68	Bursting frequency versus phase synchronization in time-delayed neuron networks. <i>Physical Review E</i> , 2013, 87, 052903.	2.1	26
69	Vibrational resonance in a harmonically trapped potential system. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2017, 47, 370-378.	3.3	25
70	Dynamics of partial control. <i>Chaos</i> , 2012, 22, 047507.	2.5	24
71	Wada Basins and Unpredictability in Hamiltonian and Dissipative Systems. <i>International Journal of Modern Physics B</i> , 2003, 17, 4171-4175.	2.0	23
72	Crisis-induced intermittency in two coupled chaotic maps: Towards understanding chaotic itinerancy. <i>Physical Review E</i> , 2005, 71, 016219.	2.1	23

#	ARTICLE	IF	CITATIONS
73	Chaos-induced resonant effects and its control. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007, 366, 428-432.	2.1	23
74	A mechanism for elliptic-like bursting and synchronization of bursts in a map-based neuron network. <i>Cognitive Processing</i> , 2009, 10, 23-31.	1.4	23
75	Effect of noise on the reinjection probability density in intermittency. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2012, 17, 3587-3596.	3.3	23
76	Characterization of the local instability in the Hénon-Heiles Hamiltonian. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2003, 311, 26-38.	2.1	22
77	Phase control of excitable systems. <i>New Journal of Physics</i> , 2008, 10, 073030.	2.9	22
78	Partial control of chaotic systems. <i>Physical Review E</i> , 2008, 77, 055201.	2.1	22
79	Bifurcation and resonance in a fractional Mathieu-Duffing oscillator. <i>European Physical Journal B</i> , 2015, 88, 1.	1.5	22
80	Avoiding healthy cells extinction in a cancer model. <i>Journal of Theoretical Biology</i> , 2014, 349, 74-81.	1.7	21
81	Chaos-Based Turbo Systems in Fading Channels. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2014, 61, 530-541.	5.4	21
82	Noise-induced resonance at the subharmonic frequency in bistable systems. <i>Nonlinear Dynamics</i> , 2017, 87, 1721-1730.	5.2	21
83	Wada property in systems with delay. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2017, 43, 220-226.	3.3	21
84	The network of scientific collaborations within the European framework programme. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2007, 384, 675-683.	2.6	20
85	Experimental demonstration of bidirectional chaotic communication by means of isochronal synchronization. <i>Europhysics Letters</i> , 2008, 81, 40005.	2.0	20
86	Exploring partial control of chaotic systems. <i>Physical Review E</i> , 2009, 79, 026217.	2.1	20
87	Frequency dispersion in the time-delayed Kuramoto model. <i>Physical Review E</i> , 2014, 89, 032905.	2.1	20
88	Dynamics of the cell-mediated immune response to tumour growth. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160291.	3.4	20
89	Improving the weak aperiodic signal by three kinds of vibrational resonance. <i>Nonlinear Dynamics</i> , 2018, 91, 2699-2713.	5.2	20
90	Ascertaining when a basin is Wada: the merging method. <i>Scientific Reports</i> , 2018, 8, 9954.	3.3	20

#	ARTICLE	IF	CITATIONS
91	Analysis of the noise-induced bursting-spiking transition in a pancreatic $\beta$ -cell model. <i>Physical Review E</i> , 2004, 69, 041910.	2.1	19
92	Controlling chaotic transients: Yorke's game of survival. <i>Physical Review E</i> , 2004, 69, 016203.	2.1	19
93	Turbo-like structures for chaos encoding and decoding. <i>IEEE Transactions on Communications</i> , 2009, 57, 597-601.	7.8	19
94	Synchronization of uncoupled excitable systems induced by white and coloured noise. <i>New Journal of Physics</i> , 2010, 12, 053040.	2.9	19
95	Delay-Induced Resonance in the Time-Delayed Duffing Oscillator. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2020, 30, 2030007.	1.7	19
96	Chaos-Coded Modulations Over Rician and Rayleigh Flat Fading Channels. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2008, 55, 581-585.	3.0	18
97	Partially controlling transient chaos in the Lorenz equations. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160211.	3.4	18
98	Low-dimensional paradigms for high-dimensional hetero-chaos. <i>Chaos</i> , 2018, 28, 103110.	2.5	18
99	Opening a closed Hamiltonian map. <i>Chaos</i> , 2003, 13, 17-24.	2.5	17
100	Optimizing the Electrical Power in an Energy Harvesting System. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2015, 25, 1550171.	1.7	17
101	Enhancing the Weak Signal With Arbitrary High-Frequency by Vibrational Resonance in Fractional-Order Duffing Oscillators. <i>Journal of Computational and Nonlinear Dynamics</i> , 2017, 12, .	1.2	17
102	Nonlinear cancer chemotherapy: Modelling the Norton-Simon hypothesis. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2019, 70, 307-317.	3.3	17
103	Wada index based on the weighted and truncated Shannon entropy. <i>Nonlinear Dynamics</i> , 2021, 104, 739-751.	5.2	17
104	Synchronization of electronic genetic networks. <i>Chaos</i> , 2006, 16, 013127.	2.5	16
105	Phase control of intermittency in dynamical systems. <i>Physical Review E</i> , 2006, 74, 016202.	2.1	16
106	BUILDING ELECTRONIC BURSTERS WITH THE MORRIS-LÉCAR NEURON MODEL. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2006, 16, 3617-3630.	1.7	16
107	Controlling unpredictability in the randomly driven Hénon-Heiles system. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2013, 18, 3449-3457.	3.3	16
108	Predictability of orbits in coupled systems through finite-time Lyapunov exponents. <i>New Journal of Physics</i> , 2013, 15, 113064.	2.9	16

#	ARTICLE	IF	CITATIONS
109	Wada structures in a binary black hole system. <i>Physical Review D</i> , 2018, 98, .	4.7	16
110	Local predictability and nonhyperbolicity through finite Lyapunov exponent distributions in two-degrees-of-freedom Hamiltonian systems. <i>Physical Review E</i> , 2008, 78, 066204.	2.1	15
111	Improving the Performance of Chaos-Based Modulations Via Serial Concatenation. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2010, 57, 448-459.	5.4	15
112	Energy Harvesting Enhancement by Vibrational Resonance. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2014, 24, 1430019.	1.7	15
113	The dose-dense principle in chemotherapy. <i>Journal of Theoretical Biology</i> , 2017, 430, 169-176.	1.7	15
114	Uncertainty dimension and basin entropy in relativistic chaotic scattering. <i>Physical Review E</i> , 2018, 97, 042214.	2.1	15
115	Measuring the transition between nonhyperbolic and hyperbolic regimes in open Hamiltonian systems. <i>Nonlinear Dynamics</i> , 2020, 99, 3029-3039.	5.2	15
116	Time-frequency analysis of a new aperiodic resonance. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2020, 85, 105258.	3.3	15
117	Remarks on transitions order-chaos induced by the shape of the periodic excitation in a parametric pendulum. <i>Chaos, Solitons and Fractals</i> , 1996, 7, 435-440.	5.1	14
118	The topology of fluid flow past a sequence of cylinders. <i>Topology and Its Applications</i> , 1999, 94, 207-242.	0.4	14
119	Complex networks and the WWW market. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2003, 324, 754-758.	2.6	14
120	Sensitivity versus resonance in two-dimensional spiking-bursting neuron models. <i>Physical Review E</i> , 2007, 75, 041902.	2.1	14
121	Permutation complexity of spatiotemporal dynamics. <i>Europhysics Letters</i> , 2010, 90, 10007.	2.0	14
122	Partial control of chaotic transients using escape times. <i>New Journal of Physics</i> , 2010, 12, 113038.	2.9	14
123	Weakly noisy chaotic scattering. <i>Physical Review E</i> , 2013, 88, 032914.	2.1	14
124	When less is more: Partial control to avoid extinction of predators in an ecological model. <i>Ecological Complexity</i> , 2014, 19, 1-8.	2.9	14
125	Predictability of Chaotic Dynamics. <i>Springer Series in Synergetics</i> , 2017, , .	0.4	14
126	On the LFM signal improvement by piecewise vibrational resonance using a new spectral amplification factor. <i>IET Signal Processing</i> , 2019, 13, 65-69.	1.5	14

#	ARTICLE	IF	CITATIONS
127	LiÃ©nard systems, limit cycles, and Melnikov theory. <i>Physical Review E</i> , 1998, 57, 340-344.	2.1	13
128	WINNERLESS COMPETITION IN NETWORKS OF COUPLED MAP NEURONS. <i>Modern Physics Letters B</i> , 2004, 18, 1347-1366.	1.9	13
129	The interplay of universities and industry through the FP5 network. <i>New Journal of Physics</i> , 2007, 9, 183-183.	2.9	13
130	Applicability of time-average moirÃ© techniques for chaotic oscillations. <i>Physical Review E</i> , 2007, 76, 036208.	2.1	13
131	Pitchfork bifurcation and vibrational resonance in a fractional-order Duffing oscillator. <i>Pramana - Journal of Physics</i> , 2013, 81, 943-957.	1.8	13
132	Signal generation and enhancement in a delayed system. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2015, 22, 1158-1168.	3.3	13
133	Destruction of solid tumors by immune cells. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2017, 44, 390-403.	3.3	13
134	A test for fractal boundaries based on the basin entropy. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2021, 95, 105588.	3.3	13
135	Vibrational Resonance in a Duffing System with a Generalized Delayed Feedback. <i>Journal of Applied Nonlinear Dynamics</i> , 2013, 2, 397-408.	0.3	13
136	Intersections of stable and unstable manifolds: the skeleton of Lagrangian chaos. <i>Chaos, Solitons and Fractals</i> , 2005, 24, 947-956.	5.1	12
137	Non-smooth transitions in a simple city traffic model analyzed through supertracks. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2013, 18, 81-88.	3.3	12
138	Bifurcation Transition and Nonlinear Response in a Fractional-Order System. <i>Journal of Computational and Nonlinear Dynamics</i> , 2015, 10, .	1.2	12
139	Decay Dynamics of Tumors. <i>PLoS ONE</i> , 2016, 11, e0157689.	2.5	12
140	Effect of the phase on the dynamics of a perturbed bouncing ball system. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2012, 17, 3279-3286.	3.3	11
141	Saddle-Node Bifurcation and Vibrational Resonance in a Fractional System with an Asymmetric Bistable Potential. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2015, 25, 1550023.	1.7	11
142	Bifurcation Analysis and Nonlinear Decay of a Tumor in the Presence of an Immune Response. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2017, 27, 1750223.	1.7	11
143	Stochastic resonance in dissipative drift motion. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2018, 54, 62-69.	3.3	11
144	Adaptive piecewise re-scaled stochastic resonance excited by the LFM signal. <i>European Physical Journal Plus</i> , 2020, 135, 1.	2.6	11

#	ARTICLE	IF	CITATIONS
145	Subharmonic bifurcations in a pendulum parametrically excited by a non-harmonic perturbation. Chaos, Solitons and Fractals, 1998, 9, 995-1003.	5.1	10
146	Channel coding in communications using chaos. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 295, 185-191.	2.1	10
147	Evaluation of channel coding and decoding algorithms using discrete chaotic maps. Chaos, 2006, 16, 013103.	2.5	10
148	The efficiency of a random and fast switch in complex dynamical systems. New Journal of Physics, 2012, 14, 083022.	2.9	10
149	PARTIAL CONTROL OF TRANSIENT CHAOS IN ELECTRONIC CIRCUITS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250032.	1.7	10
150	NONLINEAR RESPONSE OF THE MASS-SPRING MODEL WITH NONSMOOTH STIFFNESS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250006.	1.7	10
151	Electronic circuit implementation of the chaotic Rulkov neuron model. Journal of the Franklin Institute, 2013, 350, 2901-2910.	3.4	10
152	Effects of periodic forcing in chaotic scattering. Physical Review E, 2014, 89, 042909.	2.1	10
153	Parametric partial control of chaotic systems. Nonlinear Dynamics, 2016, 86, 869-876.	5.2	10
154	Stochastic resonance in overdamped systems with fractional power nonlinearity. European Physical Journal Plus, 2017, 132, 1.	2.6	10
155	Resonant behavior and unpredictability in forced chaotic scattering. Physical Review E, 2018, 98, .	2.1	10
156	Vibrational Resonance in an Overdamped System with a Fractional Order Potential Nonlinearity. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2018, 28, 1850082.	1.7	10
157	The saddle-straddle method to test for Wada basins. Communications in Nonlinear Science and Numerical Simulation, 2020, 84, 105167.	3.3	10
158	Classifying basins of attraction using the basin entropy. Chaos, Solitons and Fractals, 2022, 159, 112112.	5.1	10
159	Information flow in generalized hierarchical networks. Physica A: Statistical Mechanics and Its Applications, 2003, 324, 424-429.	2.6	9
160	Exploiting symbolic dynamics in chaos coded communications with maximum a posteriori algorithm. Electronics Letters, 2006, 42, 984.	1.0	9
161	Transport of particles by surface waves: a modification of the classical bouncer model. New Journal of Physics, 2008, 10, 083017.	2.9	9
162	Vibrational and Ghost-Vibrational Resonances in a Modified Chua's Circuit Model Equation. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2014, 24, 1430031.	1.7	9

#	ARTICLE	IF	CITATIONS
163	Global relativistic effects in chaotic scattering. <i>Physical Review E</i> , 2017, 95, 032205.	2.1	9
164	Adaptive denoising for strong noisy images by using positive effects of noise. <i>European Physical Journal Plus</i> , 2021, 136, 1.	2.6	9
165	Stochastic resetting in the Kramers problem: A Monte Carlo approach. <i>Chaos, Solitons and Fractals</i> , 2021, 152, 111342.	5.1	9
166	SYMMETRY-RESTORING CRISES, PERIOD-ADDING AND CHAOTIC TRANSITIONS IN THE CUBIC VAN DER POL OSCILLATOR. <i>Journal of Sound and Vibration</i> , 1996, 193, 863-875.	3.9	8
167	Coupling scheme for complete synchronization of periodically forced chaotic CO <sub>2</sub> lasers. <i>Physical Review E</i> , 2004, 70, 036208.	2.1	8
168	The role of dose density in combination cancer chemotherapy. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2019, 79, 104918.	3.3	8
169	The effect of time ordering and concurrency in a mathematical model of chemoradiotherapy. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2021, 96, 105693.	3.3	8
170	Dissipative hydrodynamic oscillators. <i>Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics</i> , 1991, 13, 913-918.	0.4	7
171	Comments on the Hamiltonian formulation for linear and non-linear oscillators including dissipation. <i>Journal of Sound and Vibration</i> , 1995, 185, 734-735.	3.9	7
172	ITERATIVELY DECODING CHAOS ENCODED BINARY SIGNALS. , 0, , .		7
173	Competitive decoders for turbo-like chaos-based systems. <i>IET Communications</i> , 2012, 6, 1278.	2.2	7
174	Impact of quantum-classical correspondence on entanglement enhancement by single-mode squeezing. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2014, 378, 2603-2610.	2.1	7
175	From local uncertainty to global predictions: Making predictions on fractal basins. <i>PLoS ONE</i> , 2018, 13, e0194926.	2.5	7
176	Fractional damping enhances chaos in the nonlinear Helmholtz oscillator. <i>Nonlinear Dynamics</i> , 2020, 102, 2323-2337.	5.2	7
177	How to detect Wada basins. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2021, 26, 717-739.	0.9	7
178	Delay-induced resonance suppresses damping-induced unpredictability. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021, 379, 20200232.	3.4	7
179	Low-dimensional dynamo modelling and symmetry-breaking bifurcations. <i>Physica D: Nonlinear Phenomena</i> , 2006, 223, 151-162.	2.8	6
180	ELECTRONIC DESIGN OF SYNTHETIC GENETIC NETWORKS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2007, 17, 3507-3511.	1.7	6

#	ARTICLE	IF	CITATIONS
181	Controlling crisis-induced intermittency using its relation with a boundary crisis. <i>New Journal of Physics</i> , 2009, 11, 023025.	2.9	6
182	STRONG SENSITIVITY OF THE VIBRATIONAL RESONANCE INDUCED BY FRACTAL STRUCTURES. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2013, 23, 1350129.	1.7	6
183	Control of collective network chaos. <i>Chaos</i> , 2014, 24, 023127.	2.5	6
184	The forecast of predictability for computed orbits in galactic models. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 447, 3797-3811.	4.4	6
185	Bogdanov-Takens resonance in time-delayed systems. <i>Nonlinear Dynamics</i> , 2018, 91, 1939-1947.	5.2	6
186	Amplification of the LFM signal by using piecewise vibrational methods. <i>JVC/Journal of Vibration and Control</i> , 2019, 25, 141-150.	2.6	6
187	Predictability of Chaotic Dynamics. <i>Springer Series in Synergetics</i> , 2019, , .	0.4	6
188	Fourier analysis of a delayed Rulkov neuron network. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2019, 75, 62-75.	3.3	6
189	Tumor Stabilization Induced by T-Cell Recruitment Fluctuations. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2020, 30, 2050179.	1.7	6
190	Effects of Different Fast Periodic Excitations on the Pitchfork Bifurcation and Vibrational Resonance. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2020, 30, 2050092.	1.7	6
191	Stochastic resonance induced by an unknown linear frequency modulated signal in a strong noise background. <i>Chaos</i> , 2020, 30, 043128.	2.5	6
192	Artificial Intelligence, Chaos, Prediction and Understanding in Science. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2021, 31, 2150173.	1.7	6
193	Final state sensitivity in noisy chaotic scattering. <i>Chaos, Solitons and Fractals</i> , 2021, 150, 111181.	5.1	6
194	A novel adaptive moving average method for signal denoising in strong noise background. <i>European Physical Journal Plus</i> , 2022, 137, 1.	2.6	6
195	Stochastic resonance in image denoising as an alternative to traditional methods and deep learning. <i>Nonlinear Dynamics</i> , 2022, 109, 2163-2183.	5.2	6
196	Homoclinic bifurcation sets of driven nonlinear oscillators. <i>International Journal of Theoretical Physics</i> , 1996, 35, 1745-1752.	1.2	5
197	Transition of phase locking modes in a minimal neuronal network. <i>Neurocomputing</i> , 2012, 81, 60-66.	5.9	5
198	PARTIAL CONTROL OF ESCAPES IN CHAOTIC SCATTERING. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2013, 23, 1350008.	1.7	5

#	ARTICLE	IF	CITATIONS
199	How to minimize the control frequency to sustain transient chaos using partial control. Communications in Nonlinear Science and Numerical Simulation, 2014, 19, 726-737.	3.3	5
200	Mutation-selection equilibrium in finite populations playing a Hawk-Dove game. Communications in Nonlinear Science and Numerical Simulation, 2015, 25, 66-73.	3.3	5
201	Transient chaotic transport in dissipative drift motion. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 1621-1626.	2.1	5
202	A new approach of the partial control method in chaotic systems. Nonlinear Dynamics, 2019, 98, 873-887.	5.2	5
203	Influence of the gravitational radius on asymptotic behavior of the relativistic Sitnikov problem. Physical Review E, 2020, 102, 042204.	2.1	5
204	Basin Entropy, a Measure of Final State Unpredictability and Its Application to the Chaotic Scattering of Cold Atoms. Understanding Complex Systems, 2018, , 9-34.	0.6	5
205	Analysis of Chaos-Based Coded Modulations under Intersymbol Interference. Journal of Computers, 2010, 5, .	0.4	5
206	Effect of Static Bifurcation on Logical Stochastic Resonance in a Symmetric Bistable System. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2021, 31, .	1.7	5
207	Reply to "Comment on "Liard systems, limit cycles, and Melnikov theory"": Physical Review E, 1999, 59, 2485-2486.	2.1	4
208	Controlling chaos in a fluid flow past a movable cylinder. Chaos, Solitons and Fractals, 2003, 15, 255-263.	5.1	4
209	Parallel concatenated chaos coded modulations. , 2007, , .		4
210	Effect of squeezing and Planck constant dependence in short time semiclassical entanglement. European Physical Journal D, 2014, 68, 1.	1.3	4
211	Modulation of synchronization dynamics in a network of self-sustained systems. Communications in Nonlinear Science and Numerical Simulation, 2014, 19, 656-672.	3.3	4
212	Transient chaos in time-delayed systems subjected to parameter drift. Journal of Physics Complexity, 2021, 2, 025001.	2.2	4
213	Transient Dynamics of the Lorenz System with a Parameter Drift. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2021, 31, 2150029.	1.7	4
214	Ergodic decay laws in Newtonian and relativistic chaotic scattering. Communications in Nonlinear Science and Numerical Simulation, 2021, 103, 105987.	3.3	4
215	A new mechanism of the chaos suppression. Discrete and Continuous Dynamical Systems - Series B, 2007, 7, 275-284.	0.9	4
216	The role of noise in the tumor dynamics under chemotherapy treatment. European Physical Journal Plus, 2021, 136, 1.	2.6	4

#	ARTICLE	IF	CITATIONS
217	Beyond partial control: controlling chaotic transients with the safety function. <i>Nonlinear Dynamics</i> , 2018, 10, 1.	5.2	4
218	A novel channel coding scheme based on continuous-time chaotic dynamics. <i>Chaos</i> , 2018, 18, 1.		3
219	Noise-induced effects on the chaotic advection of fluid flow. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2002, 297, 396-401.	2.1	3
220	Congestion schemes and Nash equilibrium in complex networks. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2005, 355, 602-618.	2.6	3
221	Entraining synthetic genetic oscillators. <i>Chaos</i> , 2009, 19, 033139.	2.5	3
222	Role of asymmetries in the chaotic dynamics of the double-well Duffing oscillator. <i>Pramana - Journal of Physics</i> , 2009, 72, 927-937.	1.8	3
223	PREDICTING THE SYNCHRONIZATION OF A NETWORK OF ELECTRONIC REPRESSILATORS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2010, 20, 1751-1760.	1.7	3
224	PHASE CONTROL IN NONLINEAR SYSTEMS. <i>Series on Stability, Vibration and Control of Systems - Series B</i> , 2010, 1, 147-187.	0.2	3
225	Cyclic motifs as the governing topological factor in time-delayed oscillator networks. <i>Physical Review E</i> , 2014, 90, 052920.	2.1	3
226	Effect of geometry on the classical entanglement in a chaotic optical fiber. <i>Optics Express</i> , 2015, 23, 32191.	3.4	3
227	Role of dark matter haloes on the predictability of computed orbits. <i>Astronomy and Astrophysics</i> , 2016, 595, A68.	5.1	3
228	A new method to reduce the number of time delays in a network. <i>Scientific Reports</i> , 2017, 7, 2744.	3.3	3
229	Partial control of delay-coordinate maps. <i>Nonlinear Dynamics</i> , 2018, 92, 1419-1429.	5.2	3
230	Supply based on demand dynamical model. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2018, 57, 402-414.	3.3	3
231	Transient chaos under coordinate transformations in relativistic systems. <i>Physical Review E</i> , 2020, 101, 062212.	2.1	3
232	Forcing the escape: Partial control of escaping orbits from a transient chaotic region. <i>Nonlinear Dynamics</i> , 2021, 104, 1603-1612.	5.2	3
233	Improvement in the stochastic resonance in the Duffing oscillator subjected to a Poisson white noise excitation. <i>European Physical Journal Plus</i> , 2021, 136, 1.	2.6	3
234	Introduction to Focus Issue: Recent advances in modeling complex systems: Theory and applications. <i>Chaos</i> , 2021, 31, 070401.	2.5	3

#	ARTICLE	IF	CITATIONS
235	Trapping enhanced by noise in nonhyperbolic and hyperbolic chaotic scattering. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2021, 102, 105905.	3.3	3
236	Control of Transient Chaos Using Safe Sets in Simple Dynamical Systems. , 2007, , 425-435.		3
237	Modelling Cancer Dynamics Using Cellular Automata. <i>STEAM-H: Science, Technology, Engineering, Agriculture, Mathematics &amp; Health</i> , 2019, , 159-205.	0.0	3
238	Noise activates escapes in closed Hamiltonian systems. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2022, 105, 106074.	3.3	3
239	Controlling Infectious Diseases: The Decisive Phase Effect on a Seasonal Vaccination Strategy. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2021, 31, .	1.7	3
240	Complex bio rhythms. <i>European Physical Journal: Special Topics</i> , 2022, 231, 815-818.	2.6	3
241	On the estimate of the stochastic layer width for a model of tracer dynamics. <i>Chaos</i> , 2003, 13, 866-873.	2.5	2
242	Map-based neuron networks. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	2
243	Publisher's Note: Partial control of chaotic systems [Phys. Rev. E77, 055201 (2008)]. <i>Physical Review E</i> , 2008, 77, .	2.1	2
244	Basin boundary metamorphoses and phase control. <i>Europhysics Letters</i> , 2010, 90, 30002.	2.0	2
245	EFFECT OF STEP SIZE ON BIFURCATIONS AND CHAOS OF A MAP-BASED BVP OSCILLATOR. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2010, 20, 1789-1795.	1.7	2
246	PHASE CONTROL IN THE MASS-SPRING MODEL WITH NONSMOOTH STIFFNESS AND EXTERNAL EXCITATION. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2013, 23, 1330042.	1.7	2
247	Entanglement Entropy in a Triangular Billiard. <i>Entropy</i> , 2016, 18, 79.	2.2	2
248	Reducing the number of time delays in coupled dynamical systems. <i>European Physical Journal: Special Topics</i> , 2018, 227, 1281-1289.	2.6	2
249	PARTIAL CONTROL OF CHAOTIC SYSTEMS. <i>Series on Stability, Vibration and Control of Systems - Series B</i> , 2010, , 315-335.	0.2	2
250	Vibrational resonance by using a real-time scale transformation method. <i>Physica Scripta</i> , 2022, 97, 045207.	2.5	2
251	Controlling chaotic transients in the Hénon and the Lozi map with the safety function. <i>Journal of Difference Equations and Applications</i> , 2023, 29, 876-884.	1.1	2
252	Time-dependent effects hinder cooperation on the public goods game. <i>Chaos, Solitons and Fractals</i> , 2022, 160, 112206.	5.1	2

#	ARTICLE	IF	CITATIONS
253	Control of escapes in two-degree-of-freedom open Hamiltonian systems. <i>Chaos</i> , 2022, 32, 063118.	2.5	2
254	HIERARCHICAL MODELING OF A FORCED ROBERTS DYNAMO. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2007, 17, 3589-3593.	1.7	1
255	ADAPTIVE PROCEDURE FOR THE PARAMETER ESTIMATION OF A MODEL OF A CO <sub>2</sub> CHAOTIC LASER. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2007, 17, 3639-3643.	1.7	1
256	Partial Control of a System with Fractal Basin Boundaries. , 2008, , .		1
257	Effects of intersymbol interference on chaos-based modulations. , 2008, , .		1
258	Effective suppressibility of chaos. <i>Chaos</i> , 2013, 23, 023107.	2.5	1
259	Exploring Chaos and Entanglement in the Hénon-Heiles System Using Squeezed Coherent States. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2016, 26, 1650052.	1.7	1
260	Vibrational Resonance in Monostable Systems. <i>Springer Series in Synergetics</i> , 2016, , 83-117.	0.4	1
261	Harmonic and Nonlinear Resonances. <i>Springer Series in Synergetics</i> , 2016, , 1-38.	0.4	1
262	Modern Dynamics. <i>Contemporary Physics</i> , 2016, 57, 242-245.	1.8	1
263	Computing Complex Horseshoes by Means of Piecewise Maps. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2018, 28, 1830039.	1.7	1
264	Preface to the Special Issue: Nonlinear systems theory and applications in engineering, control and life sciences. <i>Nonlinear Dynamics</i> , 2019, 97, 1783-1784.	5.2	1
265	Lyapunov Exponents. <i>Springer Series in Synergetics</i> , 2017, , 25-59.	0.4	1
266	Predictability. <i>Springer Series in Synergetics</i> , 2017, , 91-127.	0.4	1
267	Kink solitary solutions to a hepatitis C evolution model. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2017, 22, 0-0.	0.9	1
268	Weak dissipation drives and enhances Wada basins in three-dimensional chaotic scattering. <i>Chaos, Solitons and Fractals</i> , 2022, 156, 111891.	5.1	1
269	A mechanism explaining the metamorphoses of KAM islands in nonhyperbolic chaotic scattering. <i>Nonlinear Dynamics</i> , 2022, 109, 1123-1133.	5.2	1
270	Chaotic pattern of unsmoothed isochromatics around the regions of concentrated stresses. <i>Computers and Graphics</i> , 2008, 32, 116-119.	2.5	0

#	ARTICLE	IF	CITATIONS
271	Corrections to "Chaos-Coded Modulation Over Rician and Rayleigh Flat Fading Channels". IEEE Transactions on Circuits and Systems II: Express Briefs, 2008, 55, 1314-1314.	3.0	0
272	A New Mechanical Model for Particle Transport by Surface Waves and Applications. Mathematical Problems in Engineering, 2009, 2009, 1-17.	1.1	0
273	Infinite horseshoes and complex dynamics in physical systems. Communications in Nonlinear Science and Numerical Simulation, 2015, 22, 866-871.	3.3	0
274	Coherence and Chaotic Resonances. Springer Series in Synergetics, 2016, , 333-350.	0.4	0
275	Physics of cancer: the new adventure of physicists against cancer. Contemporary Physics, 2017, 58, 176-178.	1.8	0
276	Escaping from a chaotic saddle in the presence of noise. International Journal of Nonlinear Dynamics and Control, 2017, 1, 78.	0.1	0
277	Corrigendum to "The saddle-straddle method to test for Wada basins"[Commun. Nonlinear Sci. Numer. Simulat. 84 (2020) 105167]. Communications in Nonlinear Science and Numerical Simulation, 2020, 90, 105334.	3.3	0
278	A modern approach to teaching classical mechanics. Contemporary Physics, 0, , 1-4.	1.8	0
279	Dynamical Regimes and Time Scales. Springer Series in Synergetics, 2017, , 61-89.	0.4	0
280	Forecasting and Chaos. Springer Series in Synergetics, 2017, , 1-24.	0.4	0
281	When the firm prevents the crash: Avoiding market collapse with partial control. PLoS ONE, 2017, 12, e0181925.	2.5	0
282	Partial control of chaos: How to avoid undesirable behaviors with small controls in presence of noise. Discrete and Continuous Dynamical Systems - Series B, 2018, 23, 3237-3274.	0.9	0
283	Predictability. Springer Series in Synergetics, 2019, , 101-129.	0.4	0
284	Lyapunov Exponents. Springer Series in Synergetics, 2019, , 33-69.	0.4	0
285	A Detailed Example: Galactic Dynamics. Springer Series in Synergetics, 2019, , 151-188.	0.4	0
286	Dynamical Regimes and Timescales. Springer Series in Synergetics, 2019, , 71-99.	0.4	0
287	Forecasting and Chaos. Springer Series in Synergetics, 2019, , 1-31.	0.4	0
288	A stochastic hybrid model with a fast concentration bias for chemotactic cellular attraction. Chaos, Solitons and Fractals, 2022, 156, 111792.	5.1	0

#	ARTICLE	IF	CITATIONS
289	A random walk in physics. Beyond black holes and time-travels. Contemporary Physics, 0, , 1-1.	1.8	0