Ernest Barreto

List of Publications by Year
in descending order

38 papers	1,832 citations	304743 22 h-index	345221 36 g-index
40 all docs	40 docs citations	40 times ranked	1373 citing authors

#	ARTICLE	IF	CITATIONS
1	Interneuron and Pyramidal Cell Interplay During In Vitro Seizure-Like Events. Journal of Neurophysiology, 2006, 95, 3948-3954.	1.8	246
2	The influence of sodium and potassium dynamics on excitability, seizures, and the stability of persistent states: I. Single neuron dynamics. Journal of Computational Neuroscience, 2009, 26, 159-170.	1.0	230
3	Complete Classification of the Macroscopic Behavior of a Heterogeneous Network of Theta Neurons. Neural Computation, 2013, 25, 3207-3234.	2.2	127
4	The influence of sodium and potassium dynamics on excitability, seizures, and the stability of persistent states: II. Network and glial dynamics. Journal of Computational Neuroscience, 2009, 26, 171-183.	1.0	125
5	Synchronization in networks of networks: The onset of coherent collective behavior in systems of interacting populations of heterogeneous oscillators. Physical Review E, 2008, 77, 036107.	2.1	118
6	Ion concentration dynamics as a mechanism for neuronal bursting. Journal of Biological Physics, 2011, 37, 361-373.	1.5	107
7	From High Dimensional Chaos to Stable Periodic Orbits: The Structure of Parameter Space. Physical Review Letters, 1997, 78, 4561-4564.	7.8	90
8	A Model of the Effects of Applied Electric Fields on Neuronal Synchronization. Journal of Computational Neuroscience, 2005, 19, 53-70.	1.0	88
9	Synchronization in interacting populations of heterogeneous oscillators with time-varying coupling. Chaos, 2008, 18, 037114.	2.5	61
10	Inverse stochastic resonance in networks of spiking neurons. PLoS Computational Biology, 2017, 13, e1005646.	3.2	61
11	Networks of theta neurons with time-varying excitability: Macroscopic chaos, multistability, and final-state uncertainty. Physica D: Nonlinear Phenomena, 2014, 267, 16-26.	2.8	56
12	Synchronization-induced spike termination in networks of bistable neurons. Neural Networks, 2019, 110, 131-140.	5.9	53
13	Dynamical structure underlying inverse stochastic resonance and its implications. Physical Review E, 2013, 88, 042712.	2.1	49
14	Double inverse stochastic resonance with dynamic synapses. Physical Review E, 2017, 95, 012404.	2.1	48
15	Mechanisms for the Development of Unstable Dimension Variability and the Breakdown of Shadowing in Coupled Chaotic Systems. Physical Review Letters, 2000, 85, 2490-2493.	7.8	41
16	Generating macroscopic chaos in a network of globally coupled phase oscillators. Chaos, 2011, 21, 033127.	2.5	34
17	Efficient switching between controlled unstable periodic orbits in higher dimensional chaotic systems. Physical Review E, 1995, 51, 4169-4172.	2.1	32
18	The geometry of chaos synchronization. Chaos, 2003, 13, 151-164.	2.5	32

#	ARTICLE	IF	CITATIONS
19	From Generalized Synchrony to Topological Decoherence: Emergent Sets in Coupled Chaotic Systems. Physical Review Letters, 2000, 84, 1689-1692.	7.8	28
20	The onset of synchronization in systems of globally coupled chaotic and periodic oscillators. Physica D: Nonlinear Phenomena, 2002, 173, 29-51.	2.8	27
21	Limits to the experimental detection of nonlinear synchrony. Physical Review E, 2002, 65, 046225.	2.1	26
22	Multiparameter control of chaos. Physical Review E, 1995, 52, 3553-3557.	2.1	24
23	Macroscopic complexity from an autonomous network of networks of theta neurons. Frontiers in Computational Neuroscience, 2014, 8, 145.	2.1	22
24	Topology of Windows in the High-Dimensional Parameter Space of Chaotic Maps. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2003, 13, 2681-2688.	1.7	15
25	The role of inhibition in oscillatory wave dynamics in the cortex. European Journal of Neuroscience, 2012, 36, 2201-2212.	2.6	13
26	Controlling Seizure-Like Events by Perturbing Ion Concentration Dynamics with Periodic Stimulation. PLoS ONE, 2013, 8, e73820.	2.5	12
27	Box-counting dimension without boxes: Computing D_0 from average expansion rates. Physical Review E, 1999, 60, 378-385.	2.1	11
28	THE BREAKDOWN OF SYNCHRONIZATION IN SYSTEMS OF NONIDENTICAL CHAOTIC OSCILLATORS: THEORY AND EXPERIMENT. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2001, 11, 2705-2713.	1.7	10
29	Control of collective network chaos. Chaos, 2014, 24, 023127.	2.5	6
30	Effects of polarization induced by non-weak electric fields on the excitability of elongated neurons with active dendrites. Journal of Computational Neuroscience, 2016, 40, 27-50.	1.0	6
31	Synaptic Diversity Suppresses Complex Collective Behavior in Networks of Theta Neurons. Frontiers in Computational Neuroscience, 2020, 14, 44.	2.1	4
32	Itinerant complexity in networks of intrinsically bursting neurons. Chaos, 2020, 30, 061106.	2.5	4
33	Ion concentration homeostasis and the regulation of neuronal firing activity: the role of cation-chloride cotransporters. BMC Neuroscience, 2010, 11, .	1.9	3
34	Towards a Dynamics of Seizure Mechanics. , 2008, , 496-XVIII.		2
35	Synchronized changes to relative neuron populations in postnatal human neocortical development. Cognitive Neurodynamics, 2010, 4, 151-163.	4.0	1
36	Control of Chaos: Impact Oscillators and Targeting. Solid Mechanics and Its Applications, 1997, , 17-26.	0.2	1

#	Article	IF	Citations
37	Cessation of seizure-like oscillations by periodic stimulation in a neuron model with dynamic ion concentrations. BMC Neuroscience, 2012, 13, .	1.9	0
38	THE BREAKDOWN OF SYNCHRONIZATION AND SHADOWING IN COUPLED CHAOTIC SYSTEMS: ANALYSIS VIA THE SUBSYSTEM DECOMPOSITION. , 2001, , .		0